

STATE of CALIFORNIA
**COMMISSION ON STATE
MANDATES**



TEST CLAIM FORM

Section 1

Proposed Test Claim Title:

Floodplain Restoration Condition (no. 12) of Water Quality Certification for Turlock Irrigation District and Modesto Irrigation District—Don Pedro Hydroelectric Project and La Grange Hydroelectric Project

Section 2

Local Government (Local Agency/School District) Name:

Turlock Irrigation District

Name and Title of Claimant's Authorized Official pursuant to [CCR, tit.2, § 1183.1\(a\)\(1-5\)](#):

Michelle A. Reimers, General Manager

Street Address, City, State, and Zip:

333 E. Canal Drive, Turlock, CA 95380

Telephone Number

(209) 883-8222

Fax Number

n/a

Email Address

n/a

Section 3

Claimant Representative: Peter Prows Title Partner

Organization: Briscoe Ivester & Bazel LLP

Street Address, City, State, Zip:

235 Montgomery Street, Suite 935, San Francisco, CA 94104

Telephone Number

(415) 402-2708

Fax Number

(415) 398-5630

Email Address

pprows@briscoelaw.net

<i>For CSM Use Only</i>	
Filing Date:	
<div style="border: 2px solid blue; border-radius: 15px; padding: 10px; display: inline-block;"><p>RECEIVED January 14, 2022 <i>Commission on State Mandates</i></p></div>	
Test Claim #:	21-TC-02

Section 4 – Please identify all code sections (include statutes, chapters, and bill numbers; e.g., Penal Code section 2045, Statutes 2004, Chapter 54 [AB 290]), regulatory sections (include register number and effective date; e.g., California Code of Regulations, title 5, section 60100 (Register 1998, No. 44, effective 10/29/98), and other executive orders (include effective date) that impose the alleged mandate pursuant to [Government Code section 17553](#) and don't forget to check whether the code section has since been amended or a regulation adopted to implement it (refer to your completed WORKSHEET on page 7 of this form):

State Water Resources Control Board, In the Matter of Water Quality Certification for Turlock Irrigation District and Modesto Irrigation District—Don Pedro Hydroelectric Project and La Grange Hydroelectric Project—Federal Energy Regulatory Commission Project Nos. 2299 and 14581, effective January 15, 2021, condition 12

- Test Claim is Timely Filed on [Insert Filing Date] [select either A or B]: 1 / 14 / 2022
- A: Which is not later than 12 months following [insert the effective date of the test claim statute(s) or executive order(s)] 1 / 15 / 2021, the effective date of the statute(s) or executive order(s) pled; or
- B: Which is within 12 months of [insert the date costs were *first* incurred to implement the alleged mandate] / / , which is the date of first incurring costs as a result of the statute(s) or executive order(s) pled. *This filing includes evidence which would be admissible over an objection in a civil proceeding to support the assertion of fact regarding the date that costs were first incurred.*

([Gov. Code § 17551\(c\)](#); [Cal. Code Regs., tit. 2, §§ 1183.1\(c\)](#) and [1187.5.](#))

Section 5 – Written Narrative:

- Includes a statement that actual and/or estimated costs exceed one thousand dollars (\$1,000). ([Gov. Code § 17564.](#))
- Includes all of the following elements for each statute or executive order alleged pursuant to [Government Code section 17553\(b\)\(1\)](#) (refer to your completed WORKSHEET on page 7 of this form):
- Identifies all sections of statutes or executive orders and the effective date and register number of regulations alleged to contain a mandate, including a detailed description of the *new* activities and costs that arise from the alleged mandate and the existing activities and costs that are *modified* by the alleged mandate;
- Identifies *actual* increased costs incurred by the claimant during the fiscal year for which the claim was filed to implement the alleged mandate;
- Identifies *actual or estimated* annual costs that will be incurred by the claimant to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed;

- Contains a statewide cost estimate of increased costs that all local agencies or school districts will incur to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed;
Following FY: 2022 - 2023 Total Costs: At least approx. \$25,000
- Identifies all dedicated funding sources for this program; State: None
Federal: None Local agency's general purpose funds: None
Other nonlocal agency funds: None
Fee authority to offset costs: None
- Identifies prior mandate determinations made by the Board of Control or the Commission on State Mandates that may be related to the alleged mandate: _____
- Identifies a legislatively determined mandate that is on the same statute or executive order: _____

Section 6 – The Written Narrative Shall be Supported with Declarations Under Penalty of Perjury Pursuant to [Government Code Section 17553\(b\)\(2\)](#) and [California Code of Regulations, title 2, section 1187.5](#), as follows (refer to your completed WORKSHEET on page 7 of this form):

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- Declarations identifying all local, state, or federal funds, and fee authority that may be used to offset the increased costs that will be incurred by the claimant to implement the alleged mandate, including direct and indirect costs.
- Declarations describing new activities performed to implement specified provisions of the new statute or executive order alleged to impose a reimbursable state-mandated program (specific references shall be made to chapters, articles, sections, or page numbers alleged to impose a reimbursable state-mandated program).
- If applicable, declarations describing the period of reimbursement and payments received for full reimbursement of costs for a legislatively determined mandate pursuant to [Government Code section 17573](#), and the authority to file a test claim pursuant to paragraph (1) of subdivision (c) of [Government Code section 17574](#).
- The declarations are signed under penalty of perjury, based on the declarant's personal knowledge, information, or belief, by persons who are authorized and competent to do so.

Section 7 – The Written Narrative Shall be Supported with Copies of the Following Documentation Pursuant to [Government Code section 17553\(b\)\(3\)](#) and [California Code of Regulations, title 2, § 1187.5](#) (refer to your completed WORKSHEET on page 7 of this form):

- The test claim statute that includes the bill number, and/or executive order identified by its effective date and register number (if a regulation), alleged to impose or impact a mandate. Pages 24 to 136.

- Relevant portions of state constitutional provisions, federal statutes, and executive orders that may impact the alleged mandate. Pages 158 to 168.
- Administrative decisions and court decisions cited in the narrative. (Published court decisions arising from a state mandate determination by the Board of Control or the Commission are exempt from this requirement.) Pages 169 to 216.
- Evidence to support any written representation of fact. *Hearsay evidence may be used for the purpose of supplementing or explaining other evidence but shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions. (Cal. Code Regs., tit. 2, § 1187.5).* Pages 18 to 156.

Section 8 –TEST CLAIM CERTIFICATION Pursuant to [Government Code section 17553](#)

- The test claim form is signed and dated at the end of the document, under penalty of perjury by the eligible claimant, with the declaration that the test claim is true and complete to the best of the declarant's personal knowledge, information, or belief.

Read, sign, and date this section. Test claims that are not signed by authorized claimant officials pursuant to [California Code of Regulations, title 2, section 1183.1\(a\)\(1-5\)](#) will be returned as incomplete. In addition, please note that this form also serves to designate a claimant representative for the matter (if desired) and for that reason may only be signed by an authorized local government official as defined in [section 1183.1\(a\)\(1-5\)](#) of the Commission’s regulations, and not by the representative.

This test claim alleges the existence of a reimbursable state-mandated program within the meaning of [article XIII B, section 6 of the California Constitution](#) and [Government Code section 17514](#). I hereby declare, under penalty of perjury under the laws of the State of California, that the information in this test claim is true and complete to the best of my own personal knowledge, information, or belief. All representations of fact are supported by documentary or testimonial evidence and are submitted in accordance with the Commission’s regulations. ([Cal. Code Regs., tit.2, §§ 1183.1](#) and [1187.5](#).)

Michelle A. Reimers

General Manager

Name of Authorized Local Government Official
pursuant to [Cal. Code Regs., tit.2, § 1183.1\(a\)\(1-5\)](#)

Print or Type Title



01/12/2022

Signature of Authorized Local Government Official
pursuant to [Cal. Code Regs., tit.2, § 1183.1\(a\)\(1-5\)](#)

Date

Test Claim Form Sections 4-7 WORKSHEET

Complete Worksheets for Each New Activity and Modified Existing Activity Alleged to Be Mandated by the State, and Include the Completed Worksheets With Your Filing.

Statute, Chapter and Code Section/Executive Order Section, Effective Date, and Register Number: Condition 12) of Water Quality Certification for Turlock Irrigation District and Modesto Irrigation District—Don Pedro Hydroelectric Project and La Grange Hydroelectric Project (Jan. 15, 2021)
Activity: Riparian, Spawning, Floodplain Restoration Plan

Initial FY: 2021-2022 Cost: \$22,170.77 Following FY: 2022 - 2023 Cost: \$17,115

Evidence (if required): Declaration of Peter Prows

All dedicated funding sources; State: None Federal: None

Local agency's general purpose funds: None

Other nonlocal agency funds: None

Fee authority to offset costs: None

Statute, Chapter and Code Section/Executive Order Section, Effective Date, and Register Number: _____

Activity: _____

Initial FY: _____ - _____ Cost: _____ Following FY: _____ - _____ Cost: _____

Evidence (if required): _____

All dedicated funding sources; State: _____ Federal: _____

Local agency's general purpose funds: _____

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Section 2

Local Government (Local Agency/School District) Name:

Modesto Irrigation District

Name and Title of Claimant's Authorized Official pursuant to [CCR, tit.2, § 1183.1\(a\)\(1-5\)](#):

Bill Schwandt, General Manager

Street Address, City, State, and Zip:

1231 11th Street, Modesto, CA 95354

Telephone Number

(209) 526-7373

Fax Number

n/a

Email Address

n/a

Section 3

Claimant Representative: Peter Prows Title Partner

Organization: Briscoe Ivester & Bazel LLP

Street Address, City, State, Zip:

235 Montgomery Street, Suite 935, San Francisco, CA 94104

Telephone Number

(415) 402-2708

Fax Number

(415) 398-5630

Email Address

pprows@briscoelaw.net

<i>For CSM Use Only</i>	
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Bill Schwandt

General Manager

Name of Authorized Local Government Official
pursuant to [Cal. Code Regs., tit.2, § 1183.1\(a\)\(1-5\)](#)

Print or Type Title



1/12/22

Signature of Authorized Local Government Official
pursuant to [Cal. Code Regs., tit.2, § 1183.1\(a\)\(1-5\)](#)

Date

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Activity: Riparian, Spawning, Floodplain Restoration Plan

Initial FY: 2021 2022 Cost: \$10,214.23 Following FY: 2022 2023 Cost: \$7,885

Evidence (if required): Declaration of Peter Prows

All dedicated funding sources; State: None Federal: None

Local agency's general purpose funds: None

Other nonlocal agency funds: None

Fee authority to offset costs: None

Statute, Chapter and Code Section/Executive Order Section, Effective Date, and Register Number: _____

Activity: _____

Initial FY: _____ - _____ Cost: _____ Following FY: _____ - _____ Cost: _____

Evidence (if required): _____

All dedicated funding sources; State: _____ Federal: _____

Local agency's general purpose funds: _____

Other nonlocal agency funds: _____

Fee authority to offset costs: _____

Statute, Chapter and Code Section/Executive Order Section, Effective Date, and Register Number: _____

Activity: _____

Initial FY: _____ - _____ Cost: _____ Following FY: _____ - _____ Cost: _____

Evidence (if required): _____

All dedicated funding sources; State: _____ Federal: _____

Local agency's general purpose funds: _____

Other nonlocal agency funds: _____

Fee authority to offset costs: _____

**Index of Joint Test Claim of
Turlock Irrigation District and Modesto Irrigation District
Floodplain Restoration Condition (no. 12) of Water Quality Certification for
Turlock Irrigation District and Modesto Irrigation District—Don Pedro
Hydroelectric Project and La Grange Hydroelectric Project**

Note: Page numbers are hyperlinked to the page in the test claim. Clicking on the page number in the “Page” column should take the user to the relevant page in the test claim.

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SECTION 5: WRITTEN NARRATIVE

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I. INTRODUCTION

The Turlock and Modesto Irrigation Districts long ago built dams on the Tuolumne River to harness its potential to provide water and generate power for the beneficial use of local residents, but decades later the State Water Resources Control Board is now requiring the Districts to construct a new \$50+ million project outside their boundaries to “restore” the river’s historic floodplain for the benefit of fish downstream. This restoration project is a state agency mandate on local agencies for a new program or higher level of service. Section 6 of Article XIII B of the California Constitution requires the state to reimburse the Districts for the costs of this mandate. This test claim should be approved.

II. BACKGROUND

A. The Irrigation Districts

Turlock Irrigation District and Modesto Irrigation District (together, the “Districts”) are irrigation districts governed by division 11 (“Irrigation Districts”) of the Water Code. The Districts are each a “public corporation” for “municipal purposes.” (*Turlock Irrigation District v. White* (1921) 186 Cal. 183, 187.) With few exceptions, the Districts’ legal boundaries exclude riparian parcels along the Tuolumne River, whose owners largely opted out of joining the Districts. (Declaration of Peter Prows (“Prows Decl.”), Exhibit (“Ex.”) 1 (Department of Water Resources map of Districts’ legal boundaries, which do not extend to Tuolumne River for most of its reach).)

B. The Don Pedro and La Grange Hydroelectric Projects

The Districts operate the Don Pedro Hydroelectric Project and the La Grange Hydroelectric Project (together, the “Projects”) on the Tuolumne River. (Prows Decl., Ex. 2 at 8.) The Projects generate hydroelectric power as well as provide flood control and water supply for more than 200,000 acres of farmland, plus municipal and industrial uses, including water supply for the cities of Modesto and Turlock. (*Id.* at 7.) The Projects were developed decades ago using water rights held by the Districts dating back

more than a century. (*Id.* at 12; *see id.* at Attachment A (describing Projects’ historic development).)

C. FERC Relicensing

The Federal Energy Regulatory Commission (“FERC”) determined that the Projects require federal FERC licenses. (*Id.*) In 2014 and 2017, the Districts applied for FERC licenses for the Projects. (*Id.*)

D. The 401 Certification

Section 401 of the Clean Water Act, 33 U.S.C. § 1341, requires any applicant for a federal water-discharge permit to apply for “certification” from their state. (33 U.S.C. § 1341(a)(1).) The state has up to one year to grant or deny a certification, or else certification is waived. (*Id.*) If the state grants certification, it “shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply ... with any other appropriate requirement of State law”. (33 U.S.C. § 1341(d).) The conditions in the certification must then become conditions of the federal license. (*Id.*)

In California, the State Water Resources Control Board (“State Board”) is delegated responsibility for determining applications for certification under Section 401 of the Clean Water Act. (Water Code § 13160(a)(1).) Specifically, the State Board has authority “to give any certification ... pursuant to the [Clean Water Act] ... that there is reasonable assurance that any activity of any person subject to the jurisdiction of the state board will comply with ... any other appropriate requirements of state law.” (*Id.*) Water Code section 13385(a)(2) imposes state-law penalties for violating conditions in a water quality certification issued under Water Code section 13160.

The Districts applied to the State Board for certification in 2018, 2019, and 2020. (Prows Decl., Ex. 2 at 7.) The State Board denied the 2018 and 2019 applications without prejudice, and, in November 2020, the Districts withdrew their 2020 application. (*Id.*) The Districts and the State Board dispute whether the State Board has now waived certification under Section 401.

(*Id.*) That dispute is currently pending in the D.C. Circuit Court of Appeals (case nos. 21-1120, 21-1121).

Nevertheless, on January 15, 2021, the Executive Director of the State Board, exercising powers putatively delegated from the State Board (*id.* at 13-14), issued a certification with 45 conditions to the Districts (the “Order”). Only one of those conditions—condition 12—is at issue in this test claim. (See Section III below.)

E. Other Proceedings

The Districts timely petitioned the State Board for reconsideration of the Order and requested a stay. (Prows Decl., Ex. 3 at 1.) The State Board denied the stay, reasoning “there is substantial doubt that the state has authority to enforce the conditions of certification for a FERC-licensed hydroelectric project until and unless the license subjected to the certification is issued.” (*Id.* at 5.) Nevertheless, the State Board has refused to stay the Order and has not definitively disclaimed its authority to enforce any of the conditions in the Order, including condition 12, at any time.

In May 2021, the Districts filed a timely petition for writ of administrative mandamus in Tuolumne County Superior Court (case no. CV63819) to set aside the Order in its entirety. That action remains pending.

III. THE MANDATE AT ISSUE: CONDITION 12— RIPARIAN, SPAWNING, AND FLOODPLAIN RESTORATION

Condition 12 is the mandate (“Mandate”) at issue. It “requires the development and implementation of a Riparian, Spawning, and Floodplain Restoration Plan”. (Order at 39.) The Mandate is intended to redress “altered ... hydrology and natural geomorphic processes along the Tuolumne River corridor” caused by the damming of the river decades ago. (*Id.* at 38.)

The Mandate contains more than four pages of specific requirements. (*Id.* at 74-78.) Generally, the Mandate requires the preparation, approval, and implementation of a “Restoration Plan” to “construct a minimum of 150 acres of 100 percent suitable floodplain

rearing habitat that is designed to lower existing floodplain surface elevation in the first 10 years following ... approval”. (*Id* at 75.)

The Mandate also requires developing and implementing a “monitoring plan” to assess the effects of the project on floodplain inundation, fish use, vegetation, and other factors. (*Id.* at 77.) The Mandate requires annual monitoring for at least 10 years, and then, after 25 years, a “comprehensive evaluation” whether “additional floodplain restoration projects” will be required as part of the Mandate. (*Id.* at 77-78.)

Implementing the Mandate may require the Districts to undertake a separate environmental review process, under the California Environmental Quality Act, or obtain additional permits or entitlements from other agencies, including a Streambed Alteration Agreement from the California Department of Fish and Wildlife, under Fish and Game Code section 1602 (required for any substantial alteration of a stream), and a permit from the U.S. Army Corps of Engineers, under Section 404 of the Clean Water Act (33 U.S.C. § 1344, required for any dredge or fill activities in waters of the United States).

In 2018, the Districts estimated that constructing a 134-acre floodplain restoration project along the Tuolumne River would cost approximately \$51.6 million. (Prows Decl., Ex. 4 at 3.) That estimate was for a significantly smaller floodplain restoration project than required by the Mandate, and it did not include estimates of the costs of conducting any required environmental review, or of the years of monitoring and evaluation required by the Mandate. The costs of implementing the Mandate can reasonably be expected to be significantly higher than the 2018 estimate.

IV. STATE MANDATE LAW

Article XIII B § 6 of the California Constitution (“Section 6”) requires that, for every “state agency mandate[]” of “a new program or higher level of service” on “any local government”, the State is required to reimburse the local government for the “costs” of that mandate. A number of adjudicatory decisions by the State and Regional

Water Quality Control Boards have come under sharp scrutiny in recent years by the Commission and the Courts for being unfunded State mandates.¹ The Mandate is a state agency mandate of a new program or higher level of service on the Districts, which will impose reimbursable costs on the Districts (which are local agencies).

If the Mandate is not invalidated by the courts, then it will remain a State mandate. (Part V.A below.) The Districts are local government agencies within the meaning of these laws. (Part V.B below.) The Mandate requires a new program or higher level of service. (Part V.C below.) The Mandate will impose costs on the Districts. (Part III above and Part VI below.) The Districts meet their initial burden to show that the Mandate requires reimbursement under Section 6.

The State has the burden to establish the applicability of any defenses, but it cannot meet that burden here. The exemption to the reimbursement requirement for certain non-discretionary mandates required by federal law (Government Code § 17556(c)) is narrow and does not apply here. (Part V.D.1 below.) Another exemption, where the local agency “has the authority to levy service charges, fees, or assessments sufficient to pay” for the new or increased costs (Government Code § 17556(d)), is also inapplicable because the Districts lack authority under Articles XIII through XIII D of the California Constitution to levy such charges, fees, or assessments here. (Part V.D.2 below.) This test claim should be approved.

¹ *E.g. Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546; *Department of Finance v. Commission on State Mandates* (2017) 18 Cal.App.5th 661; *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749; *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal.App.4th 898; In re Test Claim On: *San Diego Regional Water Quality Control Board Order No. R9-2007-0001* (March 26, 2010); In re Test Claim On: *Los Angeles Regional Quality Control Board Order No. 01-182* (July 31, 2009).

V. THE MANDATE REQUIRES REIMBURSEMENT UNDER SECTION 6

A. The Mandate Is A State Agency Mandate

The Mandate is a “state agency mandate[]” within the meaning of Section 6. The Mandate was issued by the Executive Director of the State Board, exercising powers putatively delegated from the State Board. (Order at 13-14.) The State Board is part of the State. (*See* Water Code § 175 (State Board is part of the California Environmental Protection Agency); Government Code § 900.6 (“State” means any “board” of the State).)

The Mandate is also a mandate within the meaning of Government Code section 17514. State mandates include an “executive order”. (Government Code § 17514.) “Executive order” means any “order”, “plan”, or “requirement” issued by any “agency, department, board, or commission of state government”. (Government Code § 17516, especially subsection (c).) The Mandate is an order or requirement because Water Code section 13385(a)(2) imposes penalties for violating conditions in a water quality certification issued under Water Code section 13160, such as the Mandate. (*See* Order at 13 (Mandate issued under authority of Water Code § 13160) and at 93 (Conditions 32 and 33, specifying consequences for violations).) The Mandate is also a plan because the State Board plans for the Mandate to become a condition of the Districts’ FERC licenses. (*See id.* at 18 (“the conditions contained in this certification [to] be incorporated as

mandatory conditions of the new license(s) issued by FERC for the Projects”).)²

Because the Mandate constitutes an order by the State, it is a state agency mandate.

B. The Districts Are Local Agencies

“Local agency” includes any “special district”. (Government Code § 17518.) A special district “performs governmental or proprietary functions within limited boundaries”. (Government Code § 17520.)

The Districts, as their names make clear, are irrigation districts. Irrigation districts are “local agencies”. (*Basurto v. Imperial Irrigation District* (2012) 211 Cal.App.4th 866, 882.) Irrigation districts have standing to bring test claims under Section 6. (See *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 180 (analyzing fee authority of irrigation district as a “local agency”).)

As irrigation districts, the Districts are each a “public corporation” for “municipal purposes.” (*Turlock Irrigation District v. White* (1921) 186 Cal. 183, 187.) Irrigation districts have a specific legal boundary, defined by statute as the “land ... formed into the ... district” (Water Code § 20845) comprised of the “land susceptible of irrigation from a common source and by the same system of works” (Water Code § 20700). The Department of Water Resources has mapped the boundaries of the Districts. (Prows Decl., Ex. 1.) Because the Districts perform

² Water Code section 13385(a)(2), imposing liability for violations of conditions a water quality certification, is arguably preempted by the Federal Power Act to the extent such liability could be imposed before the FERC licenses issue. But the State Board has never definitively conceded that preemption would apply here, has denied the Districts’ request for a stay of the Order (thus implicitly reserving the State Board’s prerogative to try to enforce it), and, regardless, the State Board plans for the Mandates to become effective conditions of those licenses regardless. (See Sections II.D and II.E above.)

governmental or proprietary functions within limited boundaries, they are local agencies.

C. The Mandate Is A New Program Or Higher Level Of Service

The Mandate requires a “new program” or “higher level of service” within the meaning of Section 6.

“Whether a program is ‘new’ or provides a ‘higher level of service’ is determined by comparing the legal requirements before and after the issuance of the executive order”. (*Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 557.) The Districts were not subject to a 150-acre riparian, spawning, and floodplain restoration requirement before the Mandate issued. (*See Order at 38-40* (citing the “need” for this condition, but not any preexisting requirement for it).) The Mandate is new.

A “new” or “higher” requirement is also a “program” under Section 6 when it requires a local agency either to (i) “carry out the governmental function of providing services to the public” or (ii) “implement a state policy” through “unique requirements ... [that] do not apply generally to all residents and entities in the state.” (*Id.*, quoting *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.) The Mandate meets both alternative tests to be a program.

As for the first test, in the State Board’s view, restoring riparian, spawning, and floodplain areas will “support and protect aquatic-life beneficial uses”: they provide improved “food sources and shading”, and “temperature benefits and cover” in the river. (*Id.* at 39-40.) Improving water quality falls within the governmental function of providing services to the public. (*See Department of Finance*, 59 Cal.App.5th at 558-559 (“reduc[ing] pollution” in “drainage systems and receiving waters” is a program).)

As for the second test, the Mandate also implements state policy by imposing unique requirements on the Districts. The State Board justified the Mandate because of “the need for the development and implementation of riparian and floodplain habitats”, which is “consistent with

the Bay-Delta Plan” (Order at 39) adopted by the State Board (Order at 15). The Mandate’s requirement to develop and implement riparian and floodplain habitat restoration, consistent with the State Board’s Bay-Delta Plan, is imposed solely on the Districts and not the public generally. (See Order (directing requirements solely to the Districts and not the public generally).)

Because the Mandate is both “new”, compared to the existing legal requirements on the Districts, and a “program”, requiring the Districts to provide governmental water-quality and habitat development and management services to the public that are not required of the public generally, it is a “new program or higher level of service” within the meaning of Section 6. And because the Mandate is also a state agency mandate on local agencies, Section 6 requires the state to reimburse the Districts for its costs.

D. The State Cannot Meet Its Burden To Show Any Defenses Have Merit

The State may invoke various defenses to the reimbursement requirement here. (See Government Code § 17556.) If it does, it will have the initial burden to establish that those defenses apply here. (*Department of Finance*, 59 Cal.App.5th at 561.) The State cannot meet its burden.

1. The Mandate Is Not Required By Federal Law (Government Code § 17556(c))

The State might argue that, because the Order (at page 13) cites Section 401 of the federal Clean Water Act, 33 U.S.C. § 1341, the Mandate is “mandated by federal law” and thus exempt from Section 6 per Government Code section 17556(c). That narrow exemption applies only when the State lacks “*discretion* whether to impose a *particular* implementing requirement” of the federal law. (*Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 765, emphasis added; see Cal. Const., Art. XIII B § 9(b)) (exemption from Article XIII B applies only when agency is “without discretion” in complying with federal mandate.)

Section 401 does not mandate any particular federal requirements on California: Section 401 simply provides a procedure through which states may insist that state-law requirements be incorporated into a federal discharge permit. (*See* 33 U.S.C. § 1341 paras. (a)(1) (giving state up to one year to provide a “certification” or else certification is waived) & (d) (any certification shall set forth any “appropriate requirement of State law”).) Section 401 allows, but does not require, states to insist on additional state-law requirements in federal permits, but it does not require states to regulate in some federally required way:

[P]ursuant to § 401, States may condition certification upon any limitations necessary to ensure compliance with *state* water quality standards or any other “appropriate requirement of *State* law” [...].³

(*PUD No. 1 of Jefferson County v. Wash. Dept. of Ecology* (1994) 511 U.S. 700, 713-714, emphasis added, quoting 33 U.S.C. § 1341(d); *see Keating v. FERC* (D.C. Cir. 1991) 927 F.2d 616, 622 (“the validity of a state’s [*viz.* California’s] decision to grant or deny a request for [Section 401] certification ... turns on questions of substantive *state* environmental law”, emphasis added).)

This Mandate was meant to implement state conditions, not federal requirements. Generally, the Order’s conditions “were developed to ensure that the Projects comply with water quality requirements and other appropriate requirements of *state* law”. (Order at 18, emphasis added.) As specific authority for the Mandate, the Order cites only the State Board’s Bay-Delta Plan, not any federal requirements. (Order at 39-40.) Because nothing in federal law requires the particular requirements of the Mandate here, the State cannot meet

³ “Not a single sentence, phrase, or word in the Clean Water Act purports to place any constraint on a State’s power to regulate the quality of its own waters more stringently than federal law might require. In fact, the Act explicitly recognizes States’ ability to impose stricter standards.” (511 U.S. at 723, Stevens, J., concurring.)

its burden to show that the exemption of Government Code section 17556(c) applies.

2. The Districts Do Not Have Fee Authority To Recover The Mandate's Costs (Government Code § 17556(d))

The State might also invoke the exemption that applies when local agencies have “the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service”, under Government Code section 17556(d). The State cannot meet its burden to show that this exemption applies either.

To meet its burden, the State would need to establish that any “levy, charge, or other exaction” the Districts might use to pay for the Mandate “is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor’s burdens on, or benefits received from, the governmental activity.” (Cal. Const. Art. XIII C § 1(e).) For any property-related assessments the Districts might impose (including any levy or charge on real property), the State would also have the burden of establishing that “the property or properties in question receive a special benefit over and above the benefits conferred on the public at large and that the amount of any contested assessment is proportional to, and no greater than, the benefits conferred on the property or properties in question.” (Cal. Const. Art. XIII D § 4(f); *see id.* §§ 2(b) (defining “assessment”) & 3(b) (excluding electrical-service fees from Proposition 218).) Similar constraints apply to property-related fees and charges, such as those for utility services. (*See* Cal. Const. Art. XIII D § 6(b) (property-related fees or charges such as water, sewer and trash removal must be “proportional” to the “cost of the service attributable to the parcel” (subpara. (3)) and “actually used by, or immediately available to, the owner of the property in question (subpara. (4)), and may not be for a “service ... available to the public at large in substantially the same manner as it is to property owners” (subpara. (5))); *Department of Finance, supra*, 59 Cal.App.5th at 568

(property-related fees that do not meet substantive requirements of Art. X III D § 6(b), subparas. (3)-(5), are barred even if they meet procedural requirements of § 6, paras. (a) & (c).)

The State will not be able to meet its burden. The most obvious, but not sole, problem for the State is that the Mandate will not provide, and is not intended to provide, benefits tailored to the Districts' customers (the putative fee payors):

- With few exceptions, the Districts' legal boundaries exclude riparian parcels along the Tuolumne River, whose owners largely opted out of joining the Districts. (Prows Decl., Ex. 1.) Because the Districts will likely have to reach outside their legal boundaries to construct the Mandate, the immediate riparian and floodplain benefits the Mandate is intended to achieve are for the benefit of lands outside the Districts, rather than for the Districts' customers.
- The Mandate is intended to “support and protect aquatic-life beneficial uses” of the “Bay-Delta Plan.” (Order at 39-40. The Bay-Delta Plan “establishes water quality objectives to protect beneficial uses of water in the *San Francisco Bay/Sacramento-San Joaquin Delta Estuary* and tributary watersheds”. (Order at 15, emphasis added.) Any charges, fees, or assessments the Districts might impose to pay for the Mandate necessarily would subsidize benefits intended in significant part for *another* region of the State entirely—the “Bay-Delta Estuary” or the rest of the State as a whole.

Because fees, charges, or assessments that might be imposed on the Districts' customers to subsidize significant benefits for riparian lands outside the Districts, or for the Delta Estuary and the rest of the State far downstream, would not bear a “fair or reasonable relationship” (Art. XIII C § 1(e)) to the (non-existent) benefits the Districts' local customers would receive in return, or would not be

“proportionate” to those customers’ (non-existent) specific benefits (Art. XIII D §§ 4(f), 6(b), subparas. (3)-(5)), the Districts do not appear to have the authority to impose them.

The Mandate is a state rather than federal mandate, of a new program or increased level of service on a local agency, without fee authority to recover its costs, and so the Districts are entitled to reimbursement under Section 6. This test claim should be approved.

VI. THE COSTS TO THE DISTRICTS OF THE MANDATE

A. Statement That Actual And Estimated Costs Exceed \$1,000

Actual and estimated costs to the Districts in this test claim exceed \$1,000.

In 2018, the Districts estimated that a significantly smaller restoration project would cost approximately \$51.6 million, plus the additional costs of any required permitting and environmental review, and the decades of monitoring and evaluation required by the Mandate. The costs of implementing the Mandate can reasonably be expected to be significantly higher than the 2018 estimate.

B. New Activities And Costs That Arise From The Mandate

“Costs mandated by the state” means “any” increased costs to the local agency required by “any” State mandate. (Government Code § 17514.) Costs of preparing and filing an approved test claim are reimbursable. (*See Mandate Reimbursement Process II*, Commission Case No. 05-TC-05 at 2.) Because the State Board—so far—has not yet insisted that the Districts begin complying with the Mandate now (see Section II.E above), the only costs the Districts have incurred this fiscal year, and are expected to incur next fiscal year, are costs associated with this test claim.

C. Existing Activities And Costs That Are Modified By The Mandate

The costs described in Part III above might also be considered existing activities and costs that are modified by the Mandate. (See Part V.C above.)

D. The Actual Or Estimated Annual Costs Incurred This Fiscal Year

Actual costs incurred so far this fiscal year by the Districts for the Mandate total approximately \$32,385, of which Turlock Irrigation District incurred approximately \$22,170.77 and Modesto Irrigation District incurred approximately \$10,214.23. (Declaration of Peter Prows ¶ 6.)

Additional costs to the Districts that are reasonably well known to the Districts for this fiscal year total at least approximately \$25,000, of which Turlock Irrigation District would be responsible for approximately \$17,115 and Modesto Irrigation District would be responsible for approximately \$7,885. (Prows Decl. ¶ 7.)

Added together, the total actual and estimated costs for the Mandate for this fiscal year total at least approximately \$57,385.

E. Estimated Costs For Next Fiscal Year

The Districts expect to incur additional costs of at least approximately \$25,000 associated with this test claim next fiscal year, though the amount is uncertain. (Prows Decl. ¶ 8.)

F. Statewide Cost Estimate

The Districts bear full responsibility under the Mandate for all statewide costs of the Mandate. (See Order (naming only the Districts as responsible parties).)

G. Identification Of All Available Funding Sources

The Districts do not have funds dedicated to pay for the Mandate. (Declaration of Bill Schwandt ¶ 7; Declaration of Michelle Reimers ¶ 7.)

SECTION 6: DECLARATIONS

Declaration of Michelle A. Reimers

1. I am the General Manager of Turlock Irrigation District (the “District”). I am making this declaration of my personal knowledge.

2. This test claim arises out of the order issued by the State Water Resources Control Board on January 15, 2021 containing Floodplain Restoration Condition (no. 12) of “Water Quality Certification for Turlock Irrigation District and Modesto Irrigation District—Don Pedro Hydroelectric Project and La Grange Hydroelectric Project”.

3. The District agrees with Modesto Irrigation District on all issues in the test claim.

4. The District designates Peter Prows of Briscoe Ivester & Bazel LLP to act as its sole representative in these proceedings.


5. The District has incurred increased costs, in the form of legal fees to prepare the test claim itself, this fiscal year as a result of the mandate challenged in the test claim.

6. The District expects to incur increased costs next fiscal year, including in the form of legal fees to prosecute the test claim itself, next fiscal year.

7. The District has not identified dedicated local, state, or federal funds, or fee authority, that may be used to offset the increased costs of the mandate challenged in this test claim

I declare under penalty of perjury under the laws of the State of California that the facts stated in this declaration are true.

Date: 01/12/2022



Michelle A. Reimers
Turlock Irrigation District
General Manager

Declaration of Bill Schwandt

1. I am the General Manager of Modesto Irrigation District (the “District”). I am making this declaration of my personal knowledge.
2. This test claim arises out of the order issued by the State Water Resources Control Board on January 15, 2021 containing Floodplain Restoration Condition (no. 12) of “Water Quality Certification for Turlock Irrigation District and Modesto Irrigation District—Don Pedro Hydroelectric Project and La Grange Hydroelectric Project”.
3. The District agrees with Turlock Irrigation District on all issues in the test claim.
4. The District designates Peter Prows of Briscoe Ivester & Bazel LLP to act as its sole representative in these proceedings.
5. The District has incurred increased costs, in the form of legal fees to prepare the test claim itself, this fiscal year as a result of the mandate challenged in the test claim.
6. The District expects to incur increased costs next fiscal year, including in the form of legal fees to prosecute the test claim itself, next fiscal year.
7. The District has not identified dedicated local, state, or federal funds, or fee authority, that may be used to offset the increased costs of the mandate challenged in this test claim

I declare under penalty of perjury under the laws of the State of California that the facts stated in this declaration are true.

Date: 1/12/22



Bill Schwandt
Modesto Irrigation District
General Manager

Declaration of Peter Prows

1. I am a partner with the law firm Briscoe Ivester & Bazel LLP and represent Turlock Irrigation District and Modesto Irrigation District in this test claim. I have personal knowledge of the following facts.

2. I visited a website maintained by the Department of Water Resources, https://gis.water.ca.gov/arcgis/rest/services/Boundaries/i03_WaterDistricts/MapServer/, which reports that it “represents polygon boundaries of all public water agencies in California”. I then clicked through to the “ArcGIS Online Map Viewer” from that website. I applied a filter to search for “Turlock Irrigation District” or “Modesto Irrigation District” and exported a map of the results. **Exhibit 1** is an accurate copy of the map I exported.

3. Attached as **Exhibit 2** is an accurate copy of the Order at issue in this test claim.

4. Attached as **Exhibit 3** is an accurate copy of the State Board’s order denying the Districts’ request for a stay of the Order.

5. Attached as **Exhibit 4** is an accurate copy of a document downloaded from FERC’s website for the Projects’ relicensing, consisting of a Technical Memorandum to the Districts.

6. Actual costs incurred so far this fiscal year by the Districts for preparing this test claim total approximately \$32,385, of which Turlock Irrigation District incurred approximately \$22,170.77 and Modesto Irrigation District incurred approximately \$10,214.23.

7. I anticipate the Districts will incur at least approximately \$25,000 in additional fees for this test claim this fiscal year, of which Turlock Irrigation District would be responsible for approximately \$17,115 and Modesto Irrigation District would be responsible for approximately \$7,885.

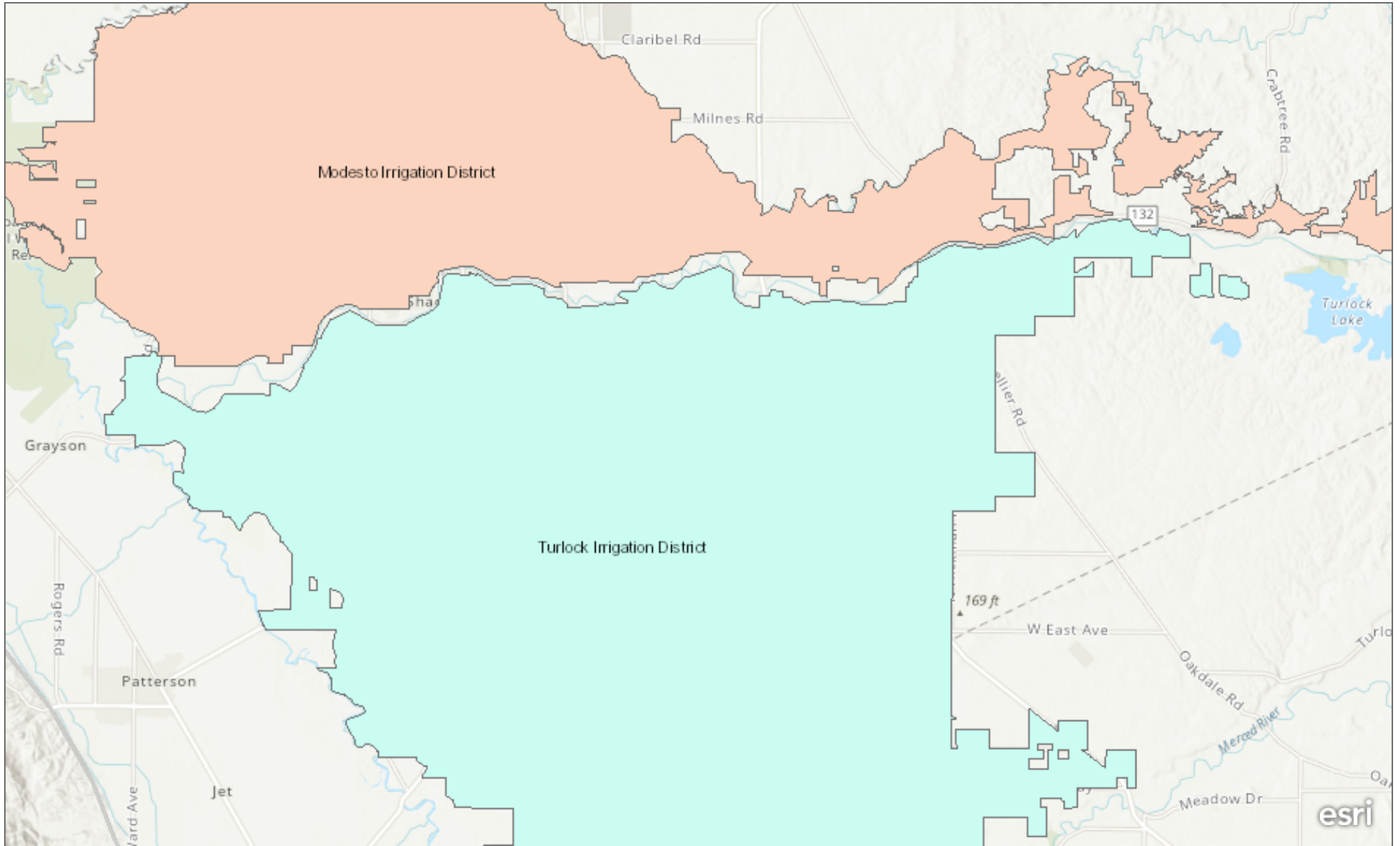
8. I anticipate the Districts will incur additional fees of at least approximately \$25,000 associated with this test claim next fiscal year, though the amount is uncertain.

Date: January 14, 2022

/s/ Peter Prows

**EXHIBIT 1:
DWR MAP OF DISTRICTS**

My Map



Esri, NASA, NGA, USGS | Fresno County Dept. PWP, Merced County Association of Gov, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA | DWR: Northern Region, North Central Region, South Central Region, Southern Region. USBR. Contact: gis@water.ca.gov

EXHIBIT 2: ORDER

**STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD**

**In the Matter of Water Quality Certification for
TURLOCK IRRIGATION DISTRICT AND MODESTO IRRIGATION DISTRICT
DON PEDRO HYDROELECTRIC PROJECT
AND
LA GRANGE HYDROELECTRIC PROJECT
FEDERAL ENERGY REGULATORY COMMISSION
PROJECT NOS. 2299 AND 14581**

Sources: Tuolumne River and Tributaries

Counties: Stanislaus and Tuolumne

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

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Attachment A: Detailed Projects Description

Attachment B: Consolidated Instream Flow Requirements

Common Acronyms and Abbreviations

<i>AF</i>	<i>acre-feet</i>
<i>Bay-Delta</i>	<i>San Francisco Bay/ Sacramento-San Joaquin Delta Estuary</i>
<i>Bay-Delta Plan</i>	<i>Water Quality Control Plan for the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary</i>
<i>BLM</i>	<i>United States Department of Interior, Bureau of Land Management</i>
<i>BMI</i>	<i>benthic macroinvertebrates</i>
<i>Regional Water Board</i>	<i>Regional Water Quality Control Board</i>
<i>Caltrans</i>	<i>California Department of Transportation</i>
<i>CCSF</i>	<i>City and County of San Francisco</i>
<i>CDFW</i>	<i>California Department of Fish and Wildlife</i>
<i>Central Valley Regional Water Board</i>	<i>Central Valley Regional Water Quality Control Board</i>
<i>CEQA</i>	<i>California Environmental Quality Act</i>
<i>certification</i>	<i>water quality certification</i>
<i>cfs</i>	<i>cubic feet per second</i>
<i>CVP</i>	<i>Central Valley Project</i>
<i>CWA</i>	<i>Clean Water Act</i>
<i>Deputy Director</i>	<i>Deputy Director for the Division of Water Rights</i>
<i>dS/m</i>	<i>deciSiemens per meter</i>
<i>DWR</i>	<i>California Department of Water Resources</i>
<i>EC</i>	<i>electrical conductivity</i>
<i>EIS</i>	<i>Environmental Impact Statement</i>
<i>ERDC</i>	<i>United States Army, Engineer Research and Development Center</i>
<i>ESA</i>	<i>Endangered Species Act</i>
<i>FERC</i>	<i>Federal Energy Regulatory Commission</i>
<i>FLA</i>	<i>Final License Application</i>
<i>LSJR</i>	<i>Lower San Joaquin River</i>
<i>LWM</i>	<i>large woody material</i>
<i>MID</i>	<i>Modesto Irrigation District</i>
<i>mmhos/cm</i>	<i>milliMhos per centimeter</i>
<i>NEPA</i>	<i>National Environmental Policy Act</i>
<i>NMFS</i>	<i>National Marine Fisheries Service</i>
<i>NOAA</i>	<i>National Oceanic and Atmospheric Administration</i>
<i>NPDES</i>	<i>National Pollutant Discharge Elimination System</i>
<i>Reclamation</i>	<i>United States Bureau of Reclamation</i>
<i>RM</i>	<i>River Mile</i>
<i>SED</i>	<i>Substitute Environmental Document</i>
<i>SJR</i>	<i>San Joaquin River</i>
<i>SJRMEP</i>	<i>San Joaquin River Monitoring and Evaluation Program</i>
<i>SNYLF</i>	<i>Sierra Nevada yellow-legged frog</i>

<i>SR/SJR Basin Plan</i>	<i>Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin</i>
<i>State Water Board</i>	<i>State Water Resources Control Board</i>
<i>STM Working Group</i>	<i>Stanislaus, Tuolumne, and Merced Working Group</i>
<i>SWP</i>	<i>State Water Project</i>
<i>TAF</i>	<i>thousand acre-feet</i>
<i>TID</i>	<i>Turlock Irrigation District</i>
<i>USEPA</i>	<i>United States Environmental Protection Agency</i>
<i>USFWS</i>	<i>United States Fish and Wildlife Service</i>
<i>Vernalis</i>	<i>San Joaquin River at Vernalis</i>
<i>WQMP Plans</i>	<i>Water Quality Monitoring and Protection Plans</i>
<i>WRAMP</i>	<i>California Wetland and Riparian Area Monitoring Plan</i>
<i>WUA</i>	<i>Weighted Usable Area, instream physical rearing habitat</i>

1.0 Projects Background

The Don Pedro Hydroelectric Project and La Grange Hydroelectric Project (collectively, Projects), Federal Energy Regulatory Commission (FERC) Project Nos. 2299 and 14581, respectively, are located on the Tuolumne River in Tuolumne and Stanislaus Counties, California (Figures 1 and 2).

On April 28, 2014, Turlock Irrigation District (TID) and Modesto Irrigation District (MID) (collectively, Districts or Licensees) filed an application for a new license with FERC to continue to operate and maintain the Don Pedro Hydroelectric Project. Subsequently, the Districts filed an amended application for the Don Pedro Hydroelectric Project on October 11, 2017. In addition to providing hydroelectric power generation, Don Pedro Reservoir provides water supply for the irrigation of more than 200,000 acres of Central Valley farmland, municipal and industrial uses, flood control benefits along the Tuolumne and San Joaquin Rivers, and a water-banking arrangement for the benefit of the City and County of San Francisco (CCSF).

The existing, unlicensed La Grange Hydroelectric Project was determined to require licensing in an order issued by FERC on December 19, 2012. On October 11, 2017, the Districts filed an application for an original license with FERC, to continue to operate and maintain the La Grange Hydroelectric Project. FERC provided notice of the accepted applications on November 30, 2017.

The Districts filed applications requesting water quality certification (certification) with the State Water Resources Control Board (State Water Board) under section 401 of the Clean Water Act for the Projects on January 26, 2018, and April 22, 2019. Before one year had elapsed after receiving the applications, the State Water Board denied the applications without prejudice on January 24, 2019, and April 20, 2020, respectively. The Districts, as lead agencies under the California Environmental Quality Act (CEQA), had not begun the environmental analysis required under CEQA, FERC had not completed its National Environmental Policy Act (NEPA) analysis, and the State Water Board could not determine compliance with water quality standards at that time. On July 20, 2020, the Districts submitted applications requesting certification for the Projects. The applications have been publicly noticed. (Cal. Code Regs., tit.23, § 3858.)

On October 2, 2020, the Districts petitioned FERC to issue a declaratory order finding that the State Water Board waived certification based on *Hoopa Valley Tribe v. Federal Energy Regulatory Commission* (D.C. Cir. 2019) 913 F.3d 1099 and recent FERC precedent. The State Water Board opposes the Districts' petition. On November 19, 2020, the Districts withdrew their applications for certification, but their applications for FERC licenses and waiver request are still pending. In the circumstances presented here, when an application for a federal license has been filed and the project is still pending federal approval, nothing in the Clean Water Act, the Porter-Cologne Water Quality Control Act, or the State Water Board's regulations bars the State Water Board from issuing certification.

The submission of the applications predates the effective date of the United States Environmental Protection Agency's (USEPA) new Clean Water Act Section 401 Certification Rule (40 C.F.R. part 121), which took effect on September 11, 2020. Thus, this certification is not subject to the requirements of the new regulations.

2.0 Projects Description

The 168-megawatt (MW) Don Pedro Hydroelectric Project is located at river mile (RM) 54.8 on the Tuolumne River in Tuolumne County, California. The Don Pedro Hydroelectric Project currently occupies 4,802 acres of federal land administered by the U.S. Department of the Interior, Bureau of Land Management (BLM). The major components of the Don Pedro Hydroelectric Project include New Don Pedro Reservoir, New Don Pedro Dam, Don Pedro Spillway, emergency spillway, power tunnel shaft and gate, Don Pedro Powerhouse, low-level outlet, and various access roads and other appurtenant facilities. The 4.7-MW La Grange Hydroelectric Project is located at RM 52.2 on the Tuolumne River in Stanislaus and Tuolumne Counties, California. The major components of the La Grange Hydroelectric Project include the La Grange Diversion Dam, storage reservoir, irrigation intakes and canals, powerhouse, access roads and other appurtenant facilities. The proposed area of the La Grange Hydroelectric Project is 14 acres of federal land administered by BLM. A detailed description of the Projects' facilities can be found in Attachment A.

3.0 Water Rights

The Districts share a number of appropriative water rights on the Tuolumne River for irrigation, power, recreation, and municipal use. New Don Pedro Reservoir provides 2,030,000 acre-feet (AF) of total water storage that serves irrigation, municipal and industrial water supply, and flood control purposes, which are described as critical functions of the Don Pedro Hydroelectric Project. The Don Pedro Hydroelectric Project provides water for irrigation of over 200,000 acres of farmland served by the Districts in the Central Valley. MID provides treated water to the City of Modesto and TID and MID jointly provide treated water to the community of La Grange. The Districts provide up to a maximum of 67,500 AF of water per year for municipal and industrial use. Immediately downstream of New Don Pedro Dam, the Districts generate 168 MW of electricity through the four turbines in the Don Pedro Powerhouse.

The La Grange Hydroelectric Project generates power using part of the flows released from the Don Pedro Hydroelectric Project. Downstream of La Grange Dam, TID diverts water from the TID Upper Main Canal to generate 4.7 MW of electricity through the La Grange Powerhouse.

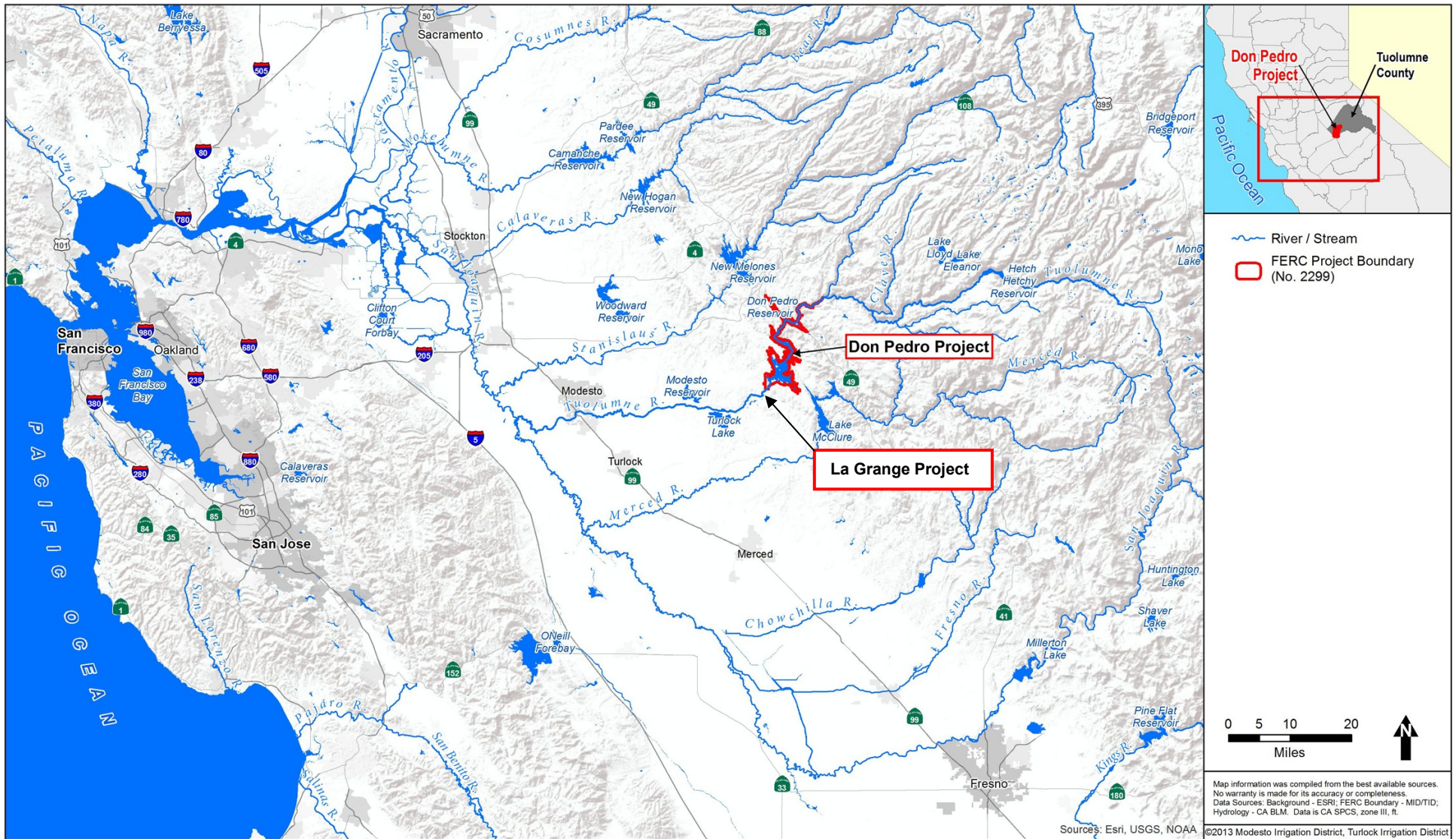


Figure 1. General Map of San Joaquin River Basin Showing Locations of Don Pedro and La Grange Hydroelectric Projects

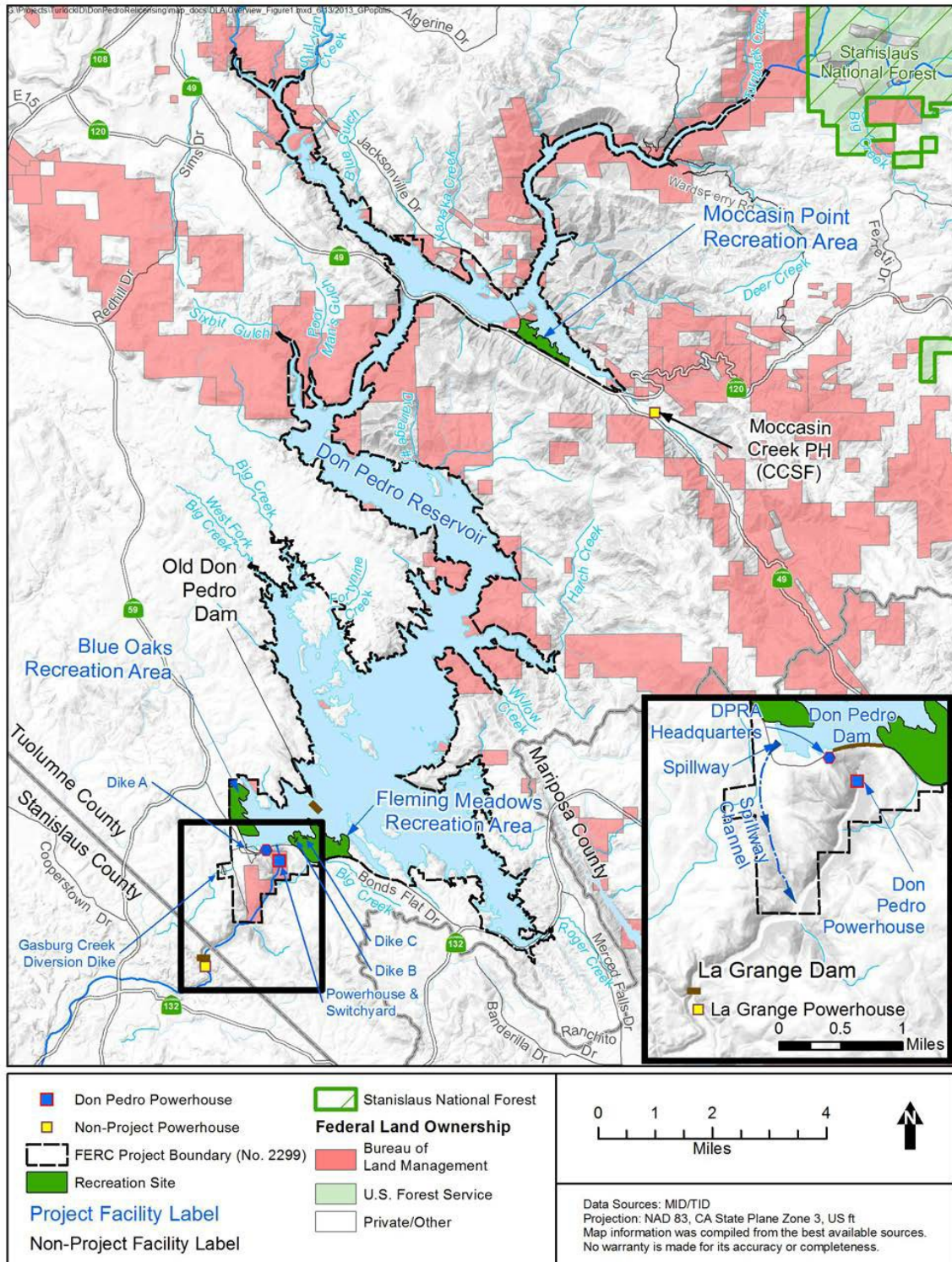


Figure 2. Don Pedro and La Grange Hydroelectric Projects Site Location Map

The Projects receive inflow from the CCSF's upstream Hetch Hetchy Water and Power System, a series of reservoirs, diversion conduits, and powerhouses located on the upper Tuolumne River. Consistent with the requirements of the Raker Act¹ and agreements between the Districts and CCSF, the Projects provide a "water bank" of up to 570,000 AF of storage. The water bank allows CCSF to meet its requirement to satisfy the Districts' senior water rights by using the New Don Pedro Reservoir to store water released from its upstream facilities. By using the allotted reservoir storage, CCSF can then divert water at times when releases would have been required to satisfy the Districts' water rights. CCSF's water bank in New Don Pedro Reservoir provides water for its 2.4 million customers in the Bay Area.

In the Tuolumne River watershed, there are 165 post-1914 appropriative water rights with a combined face value of approximately 7.2 million AF (MAF). Of these 165 rights, 160 are non-power water rights with a face value of approximately 2.65 MAF. Of the 160 rights, five are non-power water rights held by TID and MID. The face value of these five water rights totals approximately 2.62 MAF, accounting for approximately 99 percent of the water authorized for diversion (based on face value) under non-power water rights in the Tuolumne River watershed (State Water Board, 2016).

In 2018, TID filed with the State Water Board a petition for long-term change to water right License 11058 (Application 14127), pursuant to Water Code section 1735 et seq. With the petition, TID seeks authorization to transfer up to 17,375 AF of water annually to the Stanislaus Regional Water Authority through July 28, 2065. The proposed transfer would include the following changes to License 11058: (1) add TID's infiltration gallery as a point of diversion (with an average diversion rate for the maximum 30-day period of use of 24 cubic feet per second (cfs)); and (2) add municipal and industrial purposes of use within TID's existing place of use boundary for irrigation. In addition, FERC's *Final Environmental Impact Statement for Hydropower Licenses Don Pedro Hydroelectric Project—FERC Project No. 2299-082 and La Grange Hydroelectric Project—FERC Project No. 14581-002* (Final EIS), released on July 7, 2020, describes the Districts' proposed facility modification involving infiltration galleries. The Final EIS describes the Districts' proposal to install and operate two in-river infiltration galleries (one of which has been partially constructed) at approximately RM 25.9 on the lower Tuolumne River, which would have a combined capacity of 200 to 225 cfs.

¹ The Raker Act, passed by Congress in 1913, authorizes CCSF to build certain water and power facilities on federal lands and addresses the allocation of the waters of the Tuolumne River between the Districts and CCSF.

Table A. Water Rights Held by TID and MID for the Projects¹.

Application Number	Permit ID	License ID	Water Right Type	Status	Status Date	Face Value Amount ²	Beneficial Use ³	County
A009996	005909	005418	Appropriative	Licensed	09/06/1940	868,773	POW	Stanislaus, Tuolumne
A003648	003026	002424	Appropriative	Licensed	09/24/1923	48,595.8	IRR	Stanislaus
S013848	--	--	Statement of Div and Use	Claimed	10/16/1992	0	POW, MUN, IRR, REC	Stanislaus
A003139	001699	002580	Appropriative	Licensed	04/02/1943	436,558.4	POW	Stanislaus
A001233	001165	005417	Appropriative	Licensed	04/08/1919	325,000	IRR	Stanislaus, Tuolumne
A001532	001166	005421	Appropriative	Licensed	11/21/1919	1,851,934.5	POW	Tuolumne
A001232	001164	005420	Appropriative	Licensed	04/08/1919	325,000	REC, POW	Tuolumne
A006711	004271	002425	Appropriative	Licensed	06/25/1930	480,800.4	IRR	Stanislaus
A014127	009320	011058	Appropriative	Licensed	01/16/1951	1,046,800	IRR, REC	Tuolumne
S013849	--	--	Statement of Div and Use	Claimed	10/16/1992	0	POW	Tuolumne
A009997	005910	005419	Appropriative	Licensed	09/06/1940	721,200.6	IRR	Stanislaus, Tuolumne
A014126	009319	011057	Appropriative	Licensed	01/16/1951	1,046,800	REC, POW	Tuolumne

¹ Water rights S013848, A003139, and S013849 are held solely by TID.

² Values shown in AF per year.

³ Irrigation (IRR), Power (POW), Recreation (REC), Municipal (MUN).

4.0 Federal Energy Regulatory Commission Licensing Process

On April 28, 2014, the Districts filed an application for a new license with FERC to continue to operate and maintain the Don Pedro Hydroelectric Project. On October 11, 2017, the Districts filed an amended final license application for the Don Pedro Hydroelectric Project. On the same day, the Districts also filed an application for original license for the La Grange Hydroelectric Project. The applications followed FERC's Integrated Licensing Process (ILP). On November 30, 2017, FERC noticed the license applications and provided an opportunity for comment. On January 29, 2018, the State Water Board submitted certification preliminary terms and conditions to FERC. FERC issued a *Draft Environmental Impact Statement for Hydropower Licenses Don Pedro Hydroelectric Project—FERC Project No. 2299-082 and La Grange Hydroelectric Project—FERC Project No. 14581-002* (Draft EIS) in February 2019, pursuant to NEPA. On April 12, 2019, the State Water Board submitted timely comments on the Draft EIS. FERC issued the Final EIS on July 7, 2020.

5.0 Regulatory Authority

5.1 Water Quality Certification and Related Authorities

The federal Clean Water Act (33 U.S.C. §§ 1251 et seq.) was enacted “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” (33 U.S.C. § 1251(a).) The Clean Water Act relies significantly on state participation and support, in light of States’ “primary responsibilities and rights” to “prevent, reduce, and eliminate pollution.” (*Id.*, § 1251(b).) Federal agencies must “co-operate with the State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.” (*Id.*, § 1251(g).)

Section 401 of the Clean Water Act requires any applicant for a federal license or permit that may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification from the relevant state agency that the project will comply with state water quality laws. (*Id.*, § 1341(a)(1), (d).) Section 401 authorizes conditions “on the activity as a whole once the threshold condition, the existence of a discharge, is satisfied.” (*PUD No. 1 of Jefferson County v. Washington Dept. of Ecology* (1994) 511 U.S. 700, 712 (*PUD No. 1*)). The state’s certification may set conditions implementing Clean Water Act requirements, including the requirements of Section 303 of the Clean Water Act for water quality standards and implementation plans, or to implement “any other appropriate requirement of State law.” (33 U.S.C. § 1341(d).) An activity must comply with designated uses of water to comply with applicable water quality standards and to ensure that each activity is consistent with specific uses and attributes of a particular body of water. (*PUD No. 1, supra*, at pp. 715-717.) Section 401 further provides that certification conditions shall become conditions of any federal license or permit for the project. (33 U.S.C. § 1341(d).) If the state agency denies certification, the federal agency cannot approve the project.

The State Water Board is the state agency responsible for Section 401 certification in California. (Wat. Code, § 13160.) The State Water Board has delegated authority to

act on applications for certification to the Executive Director of the State Water Board. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)

In addition, Water Code section 13383 provides the State Water Board with the authority to “establish monitoring, inspection, entry, reporting, and recordkeeping requirements... and [require] other information as may be reasonably required” for activities subject to certification under section 401 of the Clean Water Act that involve the diversion of water for beneficial use. The State Water Board delegated this authority to the Deputy Director of the Division of Water Rights (Deputy Director), as provided for in State Water Board Resolution No. 2012-0029 (State Water Board, 2012). In the *Redelegation of Authorities Pursuant to Resolution No. 2012-0029* memo issued by the Deputy Director on October 19, 2017, this authority is redelegated to the Assistant Deputy Directors of the Division of Water Rights (State Water Board, 2017A).

On November 30, 2020, the State Water Board released a draft certification for the Projects for public review and comment. In response to the draft certification, the State Water Board received comments from Bay Area Water Supply & Conservation Agency (BAWSCA), California Department of Fish and Wildlife (CDFW), California Farm Bureau Federation, Conservation Groups (comprised of Merced River Conservation Committee, California Sportfishing Protection Alliance, American Whitewater, Friends of the River, Golden West Women Flyfishers, Central Sierra Environmental Resources Center (CSERC), Sierra Club – Mother Lode Chapter, American Rivers, Tuolumne River Conservancy, Tuolumne River Trust, and Trout Unlimited), the Districts, Arthur E. Godwin of Robbins, Browning, Godwin & Marchini, LLP, National Marine Fisheries Service (NMFS), National Resources Defense Council (NRDC) and NRDC Action Fund, San Francisco Public Utilities Commission, and United States Army Corps of Engineers (USACE).

5.2 Water Quality Control Plans and Related Authorities

The State Water Board’s certification for the Projects must ensure compliance with the water quality standards in the Central Valley Regional Water Quality Control Board’s (Central Valley Regional Water Board) *Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin* (SR/SJR Basin Plan) (Central Valley Regional Water Board, 2018) and the *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary* (Bay-Delta Plan) (State Water Board, 2018B). Water quality control plans designate the beneficial uses of water that are to be protected (such as municipal and industrial, agricultural, and fish and wildlife beneficial uses), water quality objectives for the reasonable protection of the beneficial uses and the prevention of nuisance, and a program of implementation to achieve the water quality objectives. (Wat. Code, §§ 13241, 13050, subds. (h), (j).) The water quality control plans are consistent with state and federal antidegradation policies. The beneficial uses, together with the water quality objectives contained in the water quality control plans, and applicable federal anti-degradation requirements, constitute California’s water quality standards for purposes of the Clean Water Act.

The nine Regional Water Quality Control Boards (Regional Water Boards) have primary responsibility for the formulation and adoption of water quality control plans for their respective regions, subject to State Water Board and USEPA approval, as appropriate. (Wat. Code, § 13240 et seq.) The State Water Board may also adopt water quality control plans, which will supersede regional water quality control plans for the same waters to the extent of any conflict. (*Id.*, § 13170.)

In March 2019, the State Water Board submitted to FERC the plans and policies included in the State's comprehensive plan for orderly and coordinated control, protection, conservation, development and utilization of the water resources of the State. The submission includes the SR/SJR Basin Plan and the Bay-Delta Plan.

5.2.1 Sacramento and San Joaquin Rivers Basin Plan

The Central Valley Regional Water Board adopted, and the State Water Board and USEPA approved, the SR/SJR Basin Plan. The SR/SJR Basin Plan designates the beneficial uses of water to be protected along with the water quality objectives necessary to protect those uses. The existing beneficial uses for the Tuolumne River from New Don Pedro Reservoir to the San Joaquin River are: irrigation; stock watering; power; contact recreation; canoeing and rafting; other non-contact recreation; warm freshwater habitat; cold freshwater habitat; warm spawning; cold spawning; and wildlife habitat. Additionally, municipal and domestic supply is designated as a potential beneficial use.

5.2.2 Bay-Delta Plan

The Bay-Delta Plan establishes water quality objectives to protect beneficial uses of water in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta) and tributary watersheds, including drinking water supply, irrigation supply, and fish and wildlife. The State Water Board adopts the Bay-Delta Plan pursuant to its authorities under the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) and the federal Clean Water Act (33 U.S.C. § 1313).

The State Water Board has historically developed the water quality control plan for the Bay-Delta for several reasons. The Bay-Delta is a critically important natural resource that is both the hub of California's water supply system and the most valuable estuary and wetlands system on the West Coast. Because diversions of water within and upstream of the Bay-Delta are a driver of water quality in the Bay-Delta watershed, much implementation of the Bay-Delta Plan relies on the combined water quality and water right authority of the State Water Board. In addition, the Bay-Delta falls within the boundaries of two Regional Water Boards. Having the State Water Board develop and adopt a water quality control plans that crosses Regional Water Board boundaries ensures a coordinated approach.

The beneficial uses in the Bay-Delta Plan are: municipal and domestic supply; industrial service supply; industrial process supply; agricultural supply; groundwater recharge; navigation; water contact recreation; non-contact water recreation; shellfish

harvesting; commercial and sport fishing; warm freshwater habitat; cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development; estuarine habitat; wildlife habitat; and rare, threatened, or endangered species.

In 2018, the Bay-Delta Plan was updated to adopt new and revised Lower San Joaquin River (LSJR) flow objectives and revised southern Delta salinity objectives. The LSJR flow objectives apply from February – June to the Stanislaus, Tuolumne, and Merced Rivers and include a baseflow requirement that applies on the San Joaquin River (SJR) at Vernalis (Vernalis). In addition, the Bay-Delta Plan includes a revised southern Delta salinity objective of 1.0 deciSiemens/meter (dS/m) electrical conductivity (EC) at Vernalis and at the three interior southern Delta stations for the protection of agricultural beneficial uses.

5.3 Clean Water Act Section 303(d) Listing

On October 3, 2017, the State Water Board listed the Tuolumne River on the Clean Water Act Section 303(d) list of impaired waterbodies. USEPA approved the California 303(d) list on April 6, 2018. New Don Pedro Reservoir is impaired for mercury. The Tuolumne River, from New Don Pedro Reservoir to the San Joaquin River, has been identified as being impaired by chlorpyrifos, diazinon, Group A pesticides², mercury, temperature, and toxicity. Section 303(d) of the Clean Water Act requires total maximum daily loads (TMDLs) to be developed for impaired waterbodies. TMDLs are written plans that define the maximum amount of a pollutant that a waterbody can receive without exceeding water quality standards and establish load allocations for point and nonpoint sources of pollution.

5.4 Construction General Permit

The Districts may need to obtain coverage under the *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit)³ for activities that disturb one or more acres of soil or activities that disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

² Group A pesticides consist of aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, hexachlorocyclohexanes (including lindane), endosulfan, and toxaphene.

³ Water Quality Order No. 2009-0009-DWQ NPDES No. CAS000002, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ. Available online at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html Last accessed: November 5, 2020.

5.5 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State

On April 2, 2019, the State Water Board adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures), which became effective on May 28, 2020. The Procedures provide California's definition of wetland, wetland delineation procedures, and procedures for submitting applications for activities that could result in discharges of dredged or fill material to waters of the state. The Procedures ensure that State Water Board regulatory activities will result in no net loss of wetland quantity, quality, or permanence, compliant with Executive Order W-59-93. The Districts must comply with the Procedures when conducting dredge or fill activities that may impact waters of the state, including wetlands.

5.6 Aquatic Weed Control General Permit

The *Statewide National Pollutant Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications* (Aquatic Weed Control General Permit)⁴ applies to projects that require aquatic weed management activities. The Aquatic Weed Control General Permit sets forth detailed management practices to protect water quality from pesticide and herbicide use associated with aquatic weed control.

5.7 Statewide Mercury Provisions

On May 2, 2017, the State Water Board adopted Resolution No. 2017-0027, which approved *Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions*.⁵ Resolution No. 2017-0027 provides a consistent regulatory approach throughout the state by setting mercury limits to protect the beneficial uses associated with the consumption of fish by both people and wildlife. The State Water Board also established definitions for three new beneficial uses (tribal traditional culture, tribal subsistence fishing, and subsistence fishing) for use by the State Water Board and Regional Water Boards. The State Water Board also approved one narrative and four numeric mercury objectives to apply to inland surface waters, enclosed bays, and estuaries of the state that have any of the following beneficial use definitions: commercial and sport fishing, tribal traditional culture, tribal subsistence fishing, wildlife habitat, marine habitat, preservation of rare and endangered species, warm freshwater habitat, cold freshwater habitat, estuarine habitat, or inland saline

⁴ Water Quality Order No. 2013-0002-DWQ and NPDES No. CAG990005, as amended by Order No. 2014-0078-DWQ, Order No. 2015-0029-DWQ, Order No. 2016-0073-EXEC, and any amendments thereto. Available online at: https://www.waterboards.ca.gov/water_issues/programs/npdes/pesticides/weed_control.html. Last accessed: November 5, 2020.

⁵ Available online at: https://www.waterboards.ca.gov/water_issues/programs/mercury/ Last accessed: November 5, 2020.

water habitat, with the exception of waterbodies or waterbody segments with site-specific mercury objectives. These provisions will be implemented through National Pollution Discharge Elimination System (NPDES) permits, certifications, waste discharge requirements, and waivers of waste discharge requirements.

6.0 California Environmental Quality Act

The Districts are the lead agencies for the purposes of CEQA compliance. (Pub. Resources Code, §§ 21000 – 21177.) The State Water Board is a responsible agency. As of the date of this certification, the Districts have not initiated the CEQA process. On June 29, 2020, Governor Newsom signed into law amendments to the Water Code that provide the State Water Board with the authority to issue certifications before completion of CEQA review, where waiting until completion of CEQA review presents a substantial risk of waiver of certification authority. (See Wat. Code, section 13160, subd. (b)(2), as amended by Stats. 2020, ch. 18, § 9.) On October 2, 2020, the Districts petitioned FERC to issue a declaratory order finding that the State Water Board waived certification. The State Water Board may now issue certification before CEQA review is complete.

The issuance of this certification does not obviate the Districts' or the State Water Board's obligations under CEQA, and the State Water Board, pursuant to Water Code section 13160, subdivision (b)(1), reserves authority to reopen and revise this certification "as appropriate to incorporate feasible measures to avoid or reduce significant environmental impacts or to make any necessary findings based on the information provided in the environmental document prepared for the project." If the State Water Board exercises this authority, it will file a Notice of Determination with the State Clearinghouse within five days of issuance of an amended certification.

7.0 Rationale for Water Quality Certification Conditions

Water development projects in the LSJR watershed, including the Projects on the Tuolumne River, have resulted in reductions in flows and alterations in the flow regime that adversely affect water quality. The Projects' impacts on water quality and beneficial uses are addressed in this certification. The certification conditions were developed to ensure that the Projects comply with water quality requirements and other appropriate requirements of state law, including the protection of beneficial uses of California's waters by complying with water quality objectives in water quality control plans and other applicable water quality requirements. Section 401 of the federal Clean Water Act (33 U.S.C. § 1341) provides that the conditions contained in this certification be incorporated as mandatory conditions of the new license(s) issued by FERC for the Projects.

When preparing the conditions in this certification, State Water Board staff reviewed and considered:

- The final license applications, including amendments and errata, submitted by the Districts to FERC (Districts 2017A);

- The Districts' applications for certification;
- Comments submitted on the license applications;
- The Draft EIS (FERC 2019) and Final EIS (FERC, 2020) prepared pursuant to NEPA, including comments submitted on the Draft EIS;
- CDFW's 10(j) Recommendations (CDFW 2018);
- NMFS' 4(e) Conditions and 10(j) Recommendations;
- BLM's Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions for the Don Pedro Hydroelectric Project (BLM, 2018A), Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions for the La Grange Hydroelectric Project (BLM, 2018B), and Revised Conditions and Recommendations (BLM, 2018C);
- Existing and potential beneficial uses and associated water quality objectives in the SR/SJR Basin Plan and Bay-Delta Plan (State Water Board, 2018B);
- Final 2014/2016 California Integrated Report (Clean Water Act Section 303(d) List/305(b) Report) (State Water Board, 2017B);
- Projects-related controllable water quality factors;
- Comments submitted on the draft certification for the Projects; and
- Other information in the record.

The following describes the rationale used to develop the conditions in this certification that are needed to address water quality impacts of the Projects.

7.1 Rationale for Condition 1 –Instream Flows

Condition 1 is a suite of instream flow requirements that are based on FERC staff recommended minimum instream and spring pulse flows, CDFW fall pulse flow recommendations, and Bay-Delta Plan flow requirements, which are necessary to meet state water quality standards and other appropriate requirements of state law. Conditions 1.B, 1.C, and 1.D are based on information contained in FERC's 2020 Final EIS, CDFW recommendations to FERC (CDFW, 2018), the 2018 *Final Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay-Sacramento San Joaquin Delta Estuary* (2018 SED) (State Water Board, 2018A),⁶ and other scientific information that became available after the State Water Board adopted the 2018 SED.

Condition 1.B includes FERC staff recommendations for minimum instream flows year-round with modifications that: (i) prevent minimum instream flows from falling below 200 cfs; and (ii) require the 75 percent exceedance forecast in determining the water year type. Minimum instream flows apply at La Grange Dam and one or more new points of diversion or rediversion downstream. Pulse flows required by Condition 1.C

⁶ Available online at:

https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/2018_sed/ Last Accessed: November 5, 2020.

are based on FERC staff recommended spring floodplain and outmigration pulse flows (“spring pulse flows”) and CDFW recommended fall pulse flows. The requirement for flows to be at least 200 cfs during the July through January period is based on maintaining recreational beneficial uses,⁷ supporting equitable access to water-based recreation for urban and rural communities, and minimizing poor water quality and habitat conditions that promote invasive plants and predatory fish. CDFW identified that the minimum instream flows proposed by the Districts in the amended final license application and, subsequently, in FERC’s Final EIS are not sufficient to support salmonid holding, spawning, and rearing in the lower Tuolumne River (CDFW, 2018). Analyses in the 2018 SED and more recent scientific information show that flows greater than the FERC recommended flows are needed to provide reasonable protection of native resident and migratory fish species that use the Tuolumne River, LSJR, and Bay-Delta, and that such flows have been impacted by the Projects. Accordingly, Condition 1.D applies Bay-Delta Plan flows in the February through June time period, which consist of a narrative objective, a percent of unimpaired flow objective at the confluence of the Tuolumne River and the LSJR, and a base flow objective for the San Joaquin River at Vernalis.

Bay-Delta Plan flows can be used to meet the requirements of Conditions 1.B and 1.C in the February through June time period or contribute to flow requirements from July to January (e.g., fall pulse flows) with State Water Board approved adaptive implementation of Condition 1.D flows or through a voluntary agreement approved by the State Water Board.

The California Natural Resources Agency and the California Environmental Protection Agency are currently leading efforts to negotiate voluntary agreements to improve conditions for native fish throughout the Bay-Delta Watershed, including in the Tuolumne River. These agreements, if achieved, would help provide reasonable protection of the fish and wildlife beneficial uses by implementing a combination of flow and non-flow actions over a 15-year period. The Bay Delta Plan includes provisions for implementing plan requirements through voluntary agreements. Pursuant to the Bay-Delta Plan, at a minimum, voluntary agreements must include provisions for transparency and accountability, monitoring and reporting, and for planning, adaptive adjustments, and periodic evaluation, that are comparable to similar elements contained in the program of implementation for the LSJR flow objectives. The State Water Board may consider approval of voluntary agreements that do not meet the Bay Delta Plan’s requirements after conducting any necessary technical and environmental analyses, and if necessary, complying with appropriate procedures to amend the Bay-Delta Plan. The State Water Board may also consider and accept voluntary agreements that include measures to comply with water quality requirements that are in addition to provisions included in applicable water quality control plans (e.g., gravel and large

⁷ Canoeing and rafting, contact recreation, and non-contact recreation are existing beneficial uses for the Tuolumne River from Don Pedro Reservoir to the confluence with the SJR (SJ/SJR Basin Plan, Central Valley Regional Water Board, 2018).

woody material augmentation, floodplain restoration), and may amend this certification accordingly. As discussed below, the State Water Board may amend the certification to accommodate a voluntary agreement.

Future updates to the Bay-Delta Plan may be approved by the State Water Board to include specific provisions for voluntary agreements as a means of implementing the water quality objectives for the protection of fish and wildlife beneficial uses. As stated in Condition 27 (compliance with the Bay-Delta Plan and SR/SJR Basin Plan) and Condition 28 (compliance with other applicable standards and plans), the Projects must be operated in a manner consistent with all applicable water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act. Moreover, as stated in Conditions 23 and 24 (reservations of authority), the State Water Board reserves the authority to add to or modify the conditions of the certification to implement any new or revised water quality standards and implementation plans, including revisions that provide for implementation through a voluntary agreement approved by the State Water Board.

7.1.1 Rationale for Condition 1.A: Water Year Type

This certification uses the San Joaquin Valley 60-20-20 Water Year Hydrological Classification Index (San Joaquin Valley 60-20-20 Index or SJV 60-20-20 Index) established in State Water Board Revised Water Right Decision 1641 (State Water Board, 2000) and the Bay-Delta Plan where flow requirements and other measures are based on water year type. The San Joaquin Valley 60-20-20 Index is calculated, in units of thousand acre-feet (TAF), using the monthly sum of unregulated runoff (i.e., unimpaired flow) into New Melones Reservoir (Stanislaus River), New Don Pedro Reservoir (Tuolumne River), Exchequer Reservoir (Merced River), and Millerton Lake (San Joaquin River) and the prior year's water year index volume as shown in the following equation.

$$\text{SJV 60-20-20 Index (TAF)} = 60\%(\text{sum current year April through July unimpaired runoff}) + 20\%(\text{sum current year March through October unimpaired runoff}) + 20\%(\text{the minimum between prior year index volume or 4,500 TAF}).$$

The San Joaquin Valley 60-20-20 Index includes five-water year classifications: Wet (W), Above Normal (AN), Below Normal (BN), Dry (D), and Critically Dry (C). The water year classification for the San Joaquin River flow objectives will be established using the best available estimate of the San Joaquin Valley 60-20-20 Index at the 75 percent exceedance level. FERC's Final EIS and the Districts' amended final license application also recommend use of the San Joaquin Valley 60-20-20 Index; however, the FERC staff recommendation uses the best available estimate of the San Joaquin Valley 60-20-20 Index at the 90 percent exceedance level in spring months. Use of the 90 percent exceedance forecast to determine flow requirements results in a shift to lower river flow requirements associated with drier water year types and would result in lower river flows in more months than would occur with the 75 percent exceedance

forecast. The minimum instream flows and pulse flows in Condition 1.B and 1.C are based on the San Joaquin Valley 60-20-20 Index using the 75 percent exceedance to remain consistent with the definition in the Bay-Delta Plan and the intent of improving flows to protect fish and wildlife beneficial uses.

7.1.2 Rationale for Condition 1.B: Minimum Instream Flows Below La Grange Dam and Below a Potential New Point or Points of Diversion or Rediversion

Condition 1.B contains water year type-specific, minimum instream flow requirements on the Tuolumne River immediately downstream of La Grange Dam and downstream of the proposed addition of one or more points of diversion or rediversion associated with one or more infiltration galleries. The year-round minimum instream flows in Condition 1.B are based on FERC staff recommended minimum flows with modifications that do not allow flows to fall below 200 cfs from July through January. The FERC staff recommended minimum instream flows are based on San Joaquin Valley 60-20-20 Index water year type (see section 7.1.1 for the water year type rationale).

The requirement for flows to be at least 200 cfs in the July through January period is based on the need to maintain recreational beneficial uses⁸. The Districts' *Lower Tuolumne River Lowest Boatable Flow Study Report* (Districts, 2013A) shows 200 cfs as the boatable flow value identified by 90 percent of study participants. The Final EIS states that a flow of 200 cfs provides the lowest boatable flow for canoes and hardshell and inflatable kayaks based on the *Lower Tuolumne River Lowest Boatable Flow Study Report* (Districts, 2013A). The Final EIS includes an analysis of frequency of boatable conditions under multiple proposed flow schedules including the FERC staff recommended flows with and without operation of the proposed infiltration galleries.

The Final EIS boatable flows analysis shows that recreational boating is unavailable downstream of the infiltration galleries for the majority of the May through October time period in Dry and Critically Dry years under the FERC staff flow recommendation. Boatable flow conditions of 200 cfs or greater downstream of the infiltration galleries occur 39 percent of the time in Dry water years and 29 percent of the time in Critically Dry water years during the May through October recreational season under the FERC staff recommended flows. In July, August, and September months of Dry years boatable flows occur 16, 6, and 10 percent of the time, respectively, and zero percent of the time for all three months in Critically Dry years under FERC staff recommended flows. The Districts propose to modify operation of the infiltration galleries to provide flows of 200 cfs for 12 boatable recreational days in June through October 15; however, the record does not support the conclusion that 12 boatable days provides reasonable access to the urban and rural communities seeking boating recreation opportunities

⁸ Canoeing and rafting, contact recreation, and non-contact recreation are existing beneficial uses for the Tuolumne River from Don Pedro Reservoir to the confluence with the SJR (SJ/SJR Basin Plan, Central Valley Regional Water Board, 2018).

downstream of the infiltration galleries and is protective of recreational uses generally. Instead, expected increased demand and the need to protect the water quality attributes of the water body that support recreational uses support the condition. The FERC Final EIS states that demand for recreational activities such as boating, wildlife viewing, and fishing are expected to increase with local population growth, which are expected to increase the demand for recreational experiences on the lower Tuolumne River. Additionally, as discussed below, there are water quality concerns associated with the FERC staff recommended flows during this period of time.

Flows of 200 cfs and lower in the lower Tuolumne River are also associated with warm water temperature, water hyacinth growth, poor water quality, stagnant conditions that support warm water predatory fish, poor aesthetic quality, and inequitably affect access to natural resources for urban and rural communities. The relationship between low flows and high temperatures is firmly established and summarized in the 2018 SED (State Water Board, 2018A). The *Lower Tuolumne River Lowest Boatable Flow Study Report* (Districts, 2013A) documents that water hyacinth mats completely spanned the river in 2012 at two locations between Riverdale Park and Shiloh Bridge and contributed to low boat-ability scores. Annual reports to FERC for the Don Pedro Hydroelectric Project also document water hyacinth, warm water temperatures, and presence of introduced predatory fish species (e.g., Districts 2015, 2016, and 2017B). Excessive plant growth, such as water hyacinth, and warm water are both associated with poor water quality such as low dissolved oxygen (State Water Board, 2018A) and can be harmful to salmon and other species as discussed in the rationale for Condition 3. Clear relationships have been demonstrated between reduced flow and depressed dissolved oxygen concentrations in other Central Valley waterbodies (Central Valley Regional Water Board, 2005).

FERC staff recommended minimum instream flows, floodplain pulse flows, and outmigration pulse flows are required at La Grange Dam in combination with Bay-Delta Plan flows, which are required at the flow gage nearest to the confluence with the LSJR⁹ (Condition 1.D), because river flows higher than FERC staff recommendations are needed to provide reasonable protection of fish and wildlife. The 2018 SED, which supports the Bay-Delta Plan LSJR flow objectives, and CDFW minimum instream flow rationale (CDFW, 2018) show that flows higher than the minimum instream flows required in the current FERC license and the FERC staff recommended minimum instream flows are associated with higher juvenile Chinook salmon survival.

CDFW minimum instream flow recommendations were developed to achieve the five functional flow components of the natural hydrograph in the eastern Central Valley:

⁹ The Bay-Delta Plan program of implementation for the LSJR flow objectives states that the Executive Director may approve changes to the compliance locations and gage station numbers if information shows that another location and gage station more accurately represent the flows of the LSJR tributary at its confluence with the LSJR.

(1) fall or winter pulse flows (freshets/first inundation flows of the wet season); (2) winter base flows (storm and peak flows); (3) spring snowmelt flows; (4) snowmelt recession flows; and (5) base flows. CDFW developed minimum instream flow levels based on flows needed to: achieve instream physical habitat as estimated by weighted usable area (WUA); achieve USEPA temperature criteria the majority of the time; activate and sustain floodplain habitats prior to and through the spring recession for successful outmigration; and successfully attract adult spawning-aged fish in the fall (CDFW, 2018). A recent (ISAP, 2019) evaluation of juvenile Chinook salmon survival data on the Stanislaus River shows that measured juvenile survival decreased with increased instream physical rearing habitat (WUA). This occurs because WUA modeling estimates for juvenile Chinook physical rearing habitat are maximized at relatively low flows (e.g., 75 cfs). However, spawner and juvenile data show that higher juvenile survival occurs during times of higher flows rather than under model estimates of increased physical rearing habitat. The same analysis shows that higher instream flows have a stronger, positive relationship with spawning success than WUA.

Minimum instream flows in Condition 1.B, in combination with pulse flows in Condition 1.C and Bay-Delta Plan flows in Condition 1.D, are consistent with the CDFW approach to identifying functional flow components in support of fish and wildlife. Implementing Bay-Delta Plan flows will generally result in greater river flows in the February through June months than Condition 1.B and Condition 1.C flows alone. Bay-Delta Plan flows and pulse flows also include options for shaping and shifting flows to meet the needs of the five functional flow components.

7.1.3 Rationale for Condition 1.C: Pulse Flows

Condition 1.C requires implementation of a spring floodplain pulse flow and spring outmigration pulse flow consistent with the FERC Final EIS's staff recommendation (FERC, 2020), and a fall attraction pulse flow as recommended by CDFW (CDFW, 2018). The FERC staff recommendation includes a spring floodplain pulse flow of 2,750 cfs for 9 – 20 days depending on water year type and timed to support salmon springtime rearing and outmigration pulse flows to facilitate survival of migrating juvenile salmon. It is anticipated that the flows required in Condition 1.D (Bay-Delta LSJR flows) will generally provide greater volumes of water in the spring than the combination of Condition 1.B flows (minimum instream flows) and Condition 1.C flows (pulse flows) in the spring. In the spring, if timed appropriately, floodplain pulse flows will activate floodplain and increase the quality and quantity of rearing habitat for juvenile salmon and the outmigration pulse flows will stimulate native migratory fish migration to the ocean prior to stressful summer flow and temperature conditions. The combination of FERC staff recommended minimum instream and pulse flows at La Grange Dam, and LSJR Bay-Delta Plan flows at Modesto should result in benefits to fisheries consistent with CDFW and Bay-Delta Plan analyses while providing opportunities to maximize water supply reliability.

The CDFW fall pulse flows are based on providing fall freshet attraction flows for spawning adults (CDFW, 2018). For example, during the fall, specifically in October or

November, a pulse flow would help to attract adult native migratory fish to the mouth of the Tuolumne River and stimulate upstream migration to the primary spawning area between La Grange Dam and Turlock State Park.

Pulse flows provide important geomorphic benefits, such as mobilizing spawning gravel and flushing sediment. Absent high flow events, especially in drier water years, river reaches can accumulate fine grained sediments, decreasing the amount of available spawning habitat. Furthermore, pulse flows and a more natural flow regime will better support aquatic life by maintaining or improving aquatic habitat. Pulse flows are needed to consistently inundate floodplains for a stretch of time, particularly during the spring, to provide rearing and foraging habitat for juvenile native resident and migratory fish in overbank areas. Pulse flows also stimulate development of floodplain vegetation that could provide protective cover for juvenile native resident and migratory fish and additional shade to the channel during warmer months when water temperature limits the suitability of native fish habitat in the lower Tuolumne River.

7.1.4 Rationale for Condition 1.D: Bay-Delta Plan Lower San Joaquin River Flows

Condition 1.D requires implementation of the Bay-Delta Plan's LSJR flow objectives (LSJR Bay-Delta flows), which are both narrative and numeric, to reasonably protect native fish and wildlife beneficial uses in the LSJR watershed to Bay-Delta. The narrative objectives require, in part, maintaining inflow conditions from the SJR watershed to the Bay-Delta at Vernalis that are sufficient to support and maintain the natural production of viable native SJR watershed fish populations migrating through the Delta. The numeric objective requires flows that more closely mimic natural hydrograph conditions. The program of implementation for the flow objectives provides flexibility for the flows to be adjusted, shaped, or shifted, if information supports that adaptively implementing the flows better achieves the narrative goal of supporting native SJR watershed fish populations.

The SJR watershed once supported large spring-run and fall-run (and possibly late fall-run) Chinook salmon populations; however, it is widely thought that the watershed now only supports fall-run Chinook salmon populations, and these populations are at risk. Reduced flow is recognized as a primary driver of the decline of riverine ecosystem conditions and fish species abundance and distribution. Nearly every feature of habitat that affects native fish and wildlife is, to some extent, determined by flow (e.g., temperature, water chemistry, and physical habitat complexity). The LSJR flow objectives in the Bay-Delta Plan protect fish and wildlife beneficial uses in the LSJR watershed.

The program of implementation for the flow objectives allows for adaptive implementation of the percent of unimpaired flow requirement. This adaptive implementation enables the magnitude and timing of flows to be adjusted, within the 30–50 percent of unimpaired flow range, when such adjustments result in better protection of fishery resources than rigidly following the unimpaired flow value on a

seven-day running average. In addition, non-flow measures could improve habitat conditions for fish and wildlife, which may support a change in the required percent of unimpaired flow, within the prescribed range, or other adaptive adjustments that may collectively reduce the water supply and economic effects resulting from implementing the 2018 Bay-Delta Plan.

Adaptive implementation of flow is intended to accomplish the following goals:

- Maximize fisheries benefits at potentially lower water cost.
- Respond to changing information and changing conditions, including changes in flow patterns from climate change.
- Minimize adverse water temperature effects.
- Support scientific efforts to assess the benefits of different flow regimes and other habitat improvements.

Tuolumne River flows that meet the February – June LSJR flow objectives are generally greater than the baseflows and pulse flows identified in Conditions 1.B (minimum instream flows) and 1.C (pulse flows). The higher flows required by Condition 1.D (LSJR Bay-Delta flows) support achieving temperature criteria in Table 3 (Condition 3) during the February through June time period and may contribute to meeting temperature criteria from July through November upon State Water Board approval and application of adaptive implementation methods. The 2018 SED provides the scientific basis for requiring LSJR numeric flow objectives for the reasonable protection of native fish and wildlife beneficial uses. The 2018 SED shows that flows greater than baseline and the FERC staff recommendation are needed to provide reasonable protection for LSJR native resident and migratory fish species. Accordingly, Condition 1.D requires the Districts to meet the Tuolumne River portion of the LSJR flow objectives including the percent of unimpaired flow objective near the confluence of the Tuolumne River with the LSJR. Condition 1.D also acknowledges that the Bay-Delta Plan allows for the percent of unimpaired flow objective to be implemented as a total volume of water that can be applied adaptively within and outside the February through June time period to achieve the best biological outcome while reducing water supply impacts.

As described in the rationale for Condition 1.B, Bay-Delta Plan percent of unimpaired flow objectives are consistent with the CDFW approach to identifying functional flow components to protect ecological functions and support fish and wildlife. CDFW minimum instream flow recommendations are the base flows needed to achieve the five functional flow components of the natural hydrograph in the eastern Central Valley. Bay-Delta Plan flows are generally higher than recommended minimum instream flows and pulse flows and can be used as a block of water to achieve functional flow targets from February through June and supplement functional flow components (e.g., summer base flows, fall attraction flows) from July through January if approved as part of adaptive implementation.

As discussed above, voluntary agreements may provide a means of implementing the Bay-Delta Plan's requirements. In addition, the State Water Board may modify the conditions of the certification to implement any new or revised water quality standards and related provisions, including revisions that provide for implementation through a voluntary agreement approved by the State Water Board.

7.1.5 Rationale for Condition 1.E: Compliance Methods

Compliance methods for minimum instream flows (Condition 1.B), pulse flows (Condition 1.C), and LSJR flow objectives (Condition 1.D) are needed to track and account for flows, including flows that are used as a volume or "block" of water to comply with the pulse flows and LSJR flow objectives. Implementing the LSJR percent of unimpaired flow objective requires development of methods to monitor and evaluate compliance. Flow objectives in water quality control plans and permits have traditionally been established as flow schedules by water year type with flows established at a fixed flow rate in cfs for a stated time period (e.g., monthly, 30-days, 14-days, or some other specific time increment). Similarly, compliance methods that track and account for flows that are established as a block or volume of water, such as pulse flows or LSJR flow objectives using adaptive methods, need to be established and approved by the State Water Board. On September 20, 2019, the State Water Board released a draft guidance document, *Initial Unimpaired Flow Compliance Measures*, (State Water Board, 2019B) which identifies basic steps for monitoring and assessing compliance with the LSJR unimpaired flow objectives and identifies issues to be resolved. State Water Board staff have been continuing to develop and refine compliance measures, including identifying options for voluntary agreements. Staff anticipate submitting an updated Unimpaired Flow Compliance Measures document to the State Water Board's Executive Director for consideration.

An evaluation of compliance also includes measuring and monitoring flows at compliance points specified in Condition 1. Condition 1 requires installation and operation of a new gage downstream of infiltration galleries to be added as points of diversion or rediversion, including TID's proposed point of rediversion, before water is diverted at the new point or points of diversion or rediversion. The new gage is necessary to monitor minimum instream flows downstream of the diversion or rediversion and establish compliance with minimum flows and pulse flows.

7.1.6 Rationale for Condition 1.F: Annual Operations Plans

Condition 1.F requires the development of annual operations plans to promote comprehensive water resource management, including efficient and effective management of water resources for water supply and biological beneficial uses. The annual operations plans must address implementation of the flows identified in Conditions 1.B (minimum instream flows), 1.C (pulse flows), and 1.D (LSJR Bay-Delta Plan flows), ramping rates in Condition 2, and carryover storage requirements in Condition 3. Annual operations plans will be based on a forecast, or multiple forecasts, of predicted inflow to the watershed. Examples of available forecasts include the San Joaquin River water year forecast of monthly unimpaired flow produced by the

California Department of Water Resources (DWR),¹⁰ released in December of the new water year and is updated monthly until May, and monthly inflow forecasts produced by the California Nevada River Forecast Center.¹¹ Best available information may not accurately reflect actual precipitation and snowpack conditions that occur as the water year progresses. Accordingly, it is expected that annual operations plans may need to be modified as the year progresses and information about available water supply improves. The process of developing an annual operations plan supports tracking operations decisions and identifying potential deviations from the approved plan as the water year progresses, such that proposed modifications can be submitted for approval, if necessary.

The Bay-Delta Plan requires annual adaptive operations plans to identify adaptive implementation actions for achieving the LSJR flow objectives. The annual operations plan required under Condition 1.F may be used to fulfill the Bay-Delta Plan's requirements for annual adaptive operations plans as long as the Bay-Delta Plan's requirements are met.

7.1.7 Rationale for Condition 1.G: Dry Year Management Operations Plan

Developing and implementing a Dry Year Management Operations Plan is important for successful management of water resources to protect all beneficial uses in California's extremely variable climate, which includes extended drought. Multiple, successive dry years present difficult choices between releasing reservoir water to meet immediate demands (deliveries and instream flow requirements) or storing reservoir water for a future year to address the risk of additional dry year(s). The Dry Year Management Operations Plan should identify available strategies for managing the need to release water from storage to fulfill seasonal water demand with the need to retain water in storage for future demand.

7.2 Rationale for Condition 2 – Ramping Rates

Projects' operations can cause abrupt flow and stage fluctuations in stream reaches. These fluctuations and the rate at which they occur (i.e., ramping rate) may strand or otherwise impact aquatic species. To avoid rapid changes in river flow that may adversely impact aquatic life and minimize risk of juvenile stranding or redd dewatering, Condition 2 requires the Districts to implement specific down-ramping rates of: (1) no more than two-inches per hour; and (2) a change in flow of less than or equal to 500 cfs in any 24-hour period. The down-ramping rates will be measured at the existing gage near La Grange Dam (USGS gage no. 11289650). Condition 2 provides an off-ramp for

¹⁰ Available at <https://cdec.water.ca.gov/snow/bulletin120/> by clicking on "San Joaquin River Water Year Forecast Breakdown: Latest." Last accessed: January 14, 2021.

¹¹ Available at <https://www.cnrfc.noaa.gov/ensembleProduct.php?id=NDPC1&prodID=6>. Last accessed: January 14, 2021.

higher ramping rates required by USACE's flood control guidelines (USACE, 1972), and updates thereto, to ensure safety for people and property during high-flow events.

The FERC Final EIS states that numerous studies in California have shown that ramping rates in the one- to two- inches per hour range minimize adverse effects to aquatic biota. The FERC Final EIS cites a 2004 PacifiCorp (PacifiCorp, 2004) literature-based assessment of ramping profiles in river reaches impacted by the Klamath Hydroelectric Project and recommendations in Hunter (Hunter, 1992) that support limiting reductions in river stage to one- to two- inches per hour as generally protective of juvenile anadromous salmonids. The FERC Final EIS also contains an analysis of water years 1971 – 2012 that shows an hourly stage change downstream of La Grange Dam of one-inch per hour or less was met 97 percent of the time for all proposed and recommended flow regimes (see Table 3.3.2-41, page 3-179). Condition 2 allows for the modification of ramping rates with the support of the Tuolumne River Anadromous Fish Committee and supporting technical documentation.

7.3 Rationale for Condition 3 – Temperature Management and Monitoring Plan

The Tuolumne River, including La Grange Reservoir, is listed on the Clean Water Act 303(d) list as impaired for elevated water temperatures, which adversely affects cold water beneficial uses on the Tuolumne River (State Water Board, 2017B). The Bay-Delta Plan protects the beneficial uses of the Bay-Delta and tributary watersheds, including the SJR watershed and its tributaries. As described in Section 5.2 of the certification, the Bay-Delta Plan and the SR/SJR Basin Plan designate cold-water beneficial uses that apply to the lower Tuolumne River. The Central Valley Regional Water Board evaluated temperature monitoring data to determine whether the migration and spawning cold water beneficial uses were being attained by comparing the current temperatures to the temperature criteria of salmonid species identified in the USEPA *Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards* (USEPA, 2003). Through this public process, the Central Valley Regional Water Board determined that these temperature criteria best represent “natural receiving water temperatures” and the benchmark conditions necessary to protect fish and wildlife beneficial uses (Central Valley Regional Water Board, 2009). Monitoring data show elevated temperature conditions on the lower Tuolumne River that exceed the USEPA Region 10 guidance, which lead to its inclusion on the State Water Board's 303(d) list of impaired waterbodies for temperature in 2011.

Although the temperature criteria were developed for fish populations located in states north of California, USEPA considers the Region 10 guidance and its associated Technical Issue Papers (USEPA, 2001A; USEPA 2001B; USEPA, 2001C; USEPA, 2001D; USEPA, 2001E) the most comprehensive compilation of research related to salmonid temperature criteria available. The studies compiled in the USEPA guidance and associated technical issue papers address the full geographic extent of salmonid populations, including California. The State Water Board considered additional scientific papers and studies that have been completed on the thermal tolerance of

salmonids in California's Central Valley in the 2018 SED and as part of the rationale for Condition 3.

Elevated water temperatures can significantly reduce habitat suitability for native resident and migratory fish. On the Tuolumne River, water temperature is largely controlled by flow releases from the reservoirs, and the Districts' operations of the Projects can affect water temperatures downstream (State Water Board, 2018A).

Water temperature is a primary driver of the productivity and survival of native resident and migratory salmonids. The role of water temperature in determining suitable habitat for aquatic organisms and the drivers that determine water temperature in the Tuolumne River are extensively discussed and supported by scientific studies summarized in the 2018 SED (State Water Board, 2018A). Water temperature is crucial to aquatic organisms because it directly influences their metabolism, respiration, feeding, behavior, growth, and reproduction. Most aquatic species have an optimal temperature range for growth and reproduction, and they are also bound by upper and lower temperature limits in which they can no longer survive or successfully reproduce. Temperature interacts with other environmental conditions, for example, temperature and dissolved oxygen are intrinsically linked in the aquatic environment (i.e., as temperatures increase the biochemical demand for oxygen increases, and as temperatures increase the solubility of oxygen decreases). Elevated water temperature and depressed dissolved oxygen concentrations can significantly reduce habitat suitability for native resident and migratory fish.

Carryover storage requirements are needed to preserve cold water that can be used to provide suitable downstream temperatures for Chinook salmon and steelhead and other cold-water native fish species. Carryover storage refers to the quantity of water stored in a reservoir at the end of a season or water year (i.e., September 30). Establishing a carryover storage requirement is consistent with the Bay-Delta Plan Program of Implementation to support and protect aquatic-life beneficial uses. Where reservoir operations could result in impacts on fish and wildlife, maintaining or storing cold water in a reservoir is often referred to as a cold-water pool.

The State Water Board simulated monthly average Tuolumne River temperatures below La Grange Dam in September – December (1970 – 2003) as a function of reservoir storage (State Water Board, 2018A). This analysis is summarized in Figure 3, which shows simulated temperature in the Tuolumne River below La Grange Dam and associated storage volumes for the months of September through December. Figure 3 shows that a carryover storage target of 800,000 AF in New Don Pedro Reservoir would likely provide La Grange Dam release temperatures of less than 56°F in September through November of most years with December temperatures being lower (State Water Board, 2018A). These temperature values and time periods are consistent with providing suitable temperature conditions as defined by USEPA temperature criteria (55.4°F, 13°C) that protect returning adults during their upstream migration, holding, spawning, and egg incubation.

Examination of the historical record shows that New Don Pedro Reservoir has been observed above 800,000 AF at the end of September/beginning of October for more than 90 percent of years, after the reservoir initially filled (1970 – 1972). End of September/October storage was above 1,000,000 AF in 42 out of 48 years (~80 percent of years) and below 800,000 AF in 5 out of 48 years (~10 percent of years) during severe drought conditions such as 1976–1977, 1992, and 2014–2015 (CDEC).

Carryover storage requirements also provide the benefit of improving water delivery reliability, especially during sequential dry years and drought conditions. No reliable forecast exists that can predict hydrologic conditions for the upcoming water year. This means that reservoir operators must assume that conditions for the coming water year could range from drought to flood. For this reason, conservative reservoir operations include some degree of protection of existing and future water supplies in storage to successfully manage dry conditions.

The Bay-Delta Plan recognizes that implementing the LSJR flow objectives requires the development and implementation of minimum reservoir carryover storage levels based on analyses and scientific information summarized in the 2018 SED (State Water Board, 2018A). Maintaining adequate carryover storage is one of the most effective actions to provide suitable temperature conditions for salmonids and avoid significant adverse temperature impacts, or other impacts, on fish and wildlife. Adequate carryover storage levels allow for the consideration of fish and wildlife beneficial uses year-round while focusing the LSJR flow objectives on the season that is most important to early life stages of several fish species (i.e., salmonid egg incubation, emergence, and juvenile rearing, migration, and smoltification).

Additional actions to control water temperature have been evaluated and implemented in California rivers and streams. For example, a temperature control device was necessary to improve the ability to control downstream water temperatures in the Sacramento River (State Water Board, 1990). The North Coast Regional Water Board has implemented temperature control programs that require riparian management or other restoration measures and coordinated efforts with local entities (North Coast Regional Water Board, 2018). Other possible actions to improve downstream water temperatures include, but are limited to, adaptive implementation of Bay-Delta Plan LSJR flows, modified or additional reservoir releases, cold water bypass, and modified power supply operations.

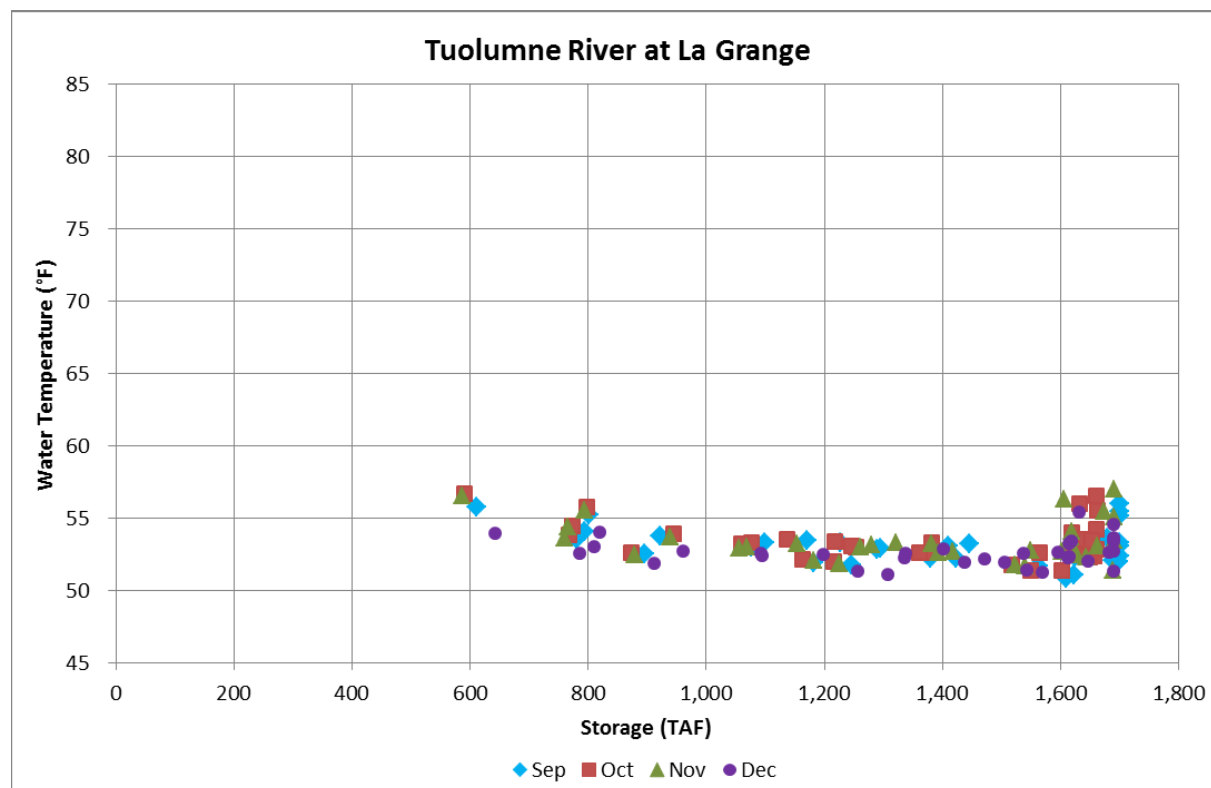


Figure 3. 2018 SED Appendix F.1, page F.1-210. “Figure F.1.6-6a Effects of New Don Pedro Storage on New Don Pedro and La Grange Simulated Water Temperatures September – December for Baseline Conditions 1970 – 2003.”

Condition 3 requires the Districts to develop and implement a Temperature Management and Monitoring Plan that identifies carryover storage requirements and other actions needed to maintain suitable downstream temperature conditions and meet temperature targets within the Districts reasonable control. The Temperature Management and Monitoring Plan will be developed in consultation with the Tuolumne River Anadromous Fish Committee, the Tuolumne River Watershed Group, and appropriate state agencies, to ensure protection of water quality and the beneficial uses of water described in the Bay-Delta Plan and the SR/SJR Basin Plan.

Temperature targets identified in Table 3 are based on USEPA recommended temperature criteria for protection of salmonids¹² and information provided and analyzed in the 2018 SED (State Water Board, 2018A).¹³

¹² USEPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards. April. USEPA 910-B-03-002. 49 pp.

¹³ Chapter 19 Analyses of Benefits to Native Fish Populations from Increased Flow between February 1 and June 30.

Temperature target timing and locations are generally consistent with CDFW and NMFS 10(j) recommendations. In addition, the targets include protections for migrating salmonids to the confluence.

Condition 3 also allows the Deputy Director to set interim carryover storage requirements if the Districts fail to identify and implement carryover storage needed to maintain suitable downstream temperature conditions and meet temperature targets within the schedule identified in the condition.

7.4 Rationale for Condition 4 – Extremely Dry Conditions

California's history of drought illustrates the importance of planning for multiple dry years or drought. It is difficult to anticipate the specific impacts of consecutive dry years or a long-term drought and identify where limited water supplies may be best used during times of shortage. Condition 4 allows the Districts to request Deputy Director approval of a Revised Operations Plan to address water shortage issues during consecutive Dry or Critically Dry water year types or drought years. This condition provides flexibility for adaptive implementation during times of extreme water shortage.

The Bay-Delta Plan includes an emergency provision, which applies if the State Water Board determines the existence of an emergency as defined in CEQA or the Governor declares an emergency under the California Emergency Services Act and the LSJR flow requirements affect or are affected by the conditions of the emergency. The Governor's power to declare an emergency is not limited to statewide emergencies but encompasses emergencies that are regional or local in nature. Under the provision, the State Water Board may approve a temporary change in the implementation of the LSJR flow objectives in a water right proceeding. With respect to drought conditions, however, most are not declared emergencies and are accommodated through the adaptive implementation methods for the LSJR flow objectives. The emergency provision cannot be used to routinely relax implementation of flow requirements but is reserved for true emergencies. The Bay-Delta Plan emergency provision includes a requirement for the State Water Board, before authorizing any temporary change, to find that measures will be taken to reasonably protect fish and wildlife beneficial uses in light of the circumstances of the emergency.

7.5 Rationale for Condition 5 – Southern Delta Salinity

One of the primary water quality concerns in the southern Delta is salinity, particularly for agricultural water users. The Bay-Delta Plan establishes a year-round water quality objective of 1.0 dS/m EC at Vernalis and in the southern Delta for the protection of agricultural beneficial uses.

Before 2018, the Bay-Delta Plan set a water quality objective at the three interior southern Delta compliance stations and Vernalis of 0.7 milliMhos per centimeter (mmhos/cm) (units of mmhos/cm are equal to units of dS/m) during the summer irrigation season and 1.0 mmhos/cm from September to March. Under their water right permits as amended by Revised Water Right Decision 1641 (State Water Board, 2000),

DWR and the United States Bureau of Reclamation (Reclamation) are responsible for meeting this salinity requirement at the three interior southern Delta compliance stations and Reclamation is responsible for meeting the requirement at Vernalis. The 2018 Bay-Delta Plan set a year round objective of 1.0 dS/m, but as part of the amendments, the State Water Board determined that salinity at Vernalis during the summer irrigation season should remain 0.7 dS/m to provide assimilative capacity for salinity in the southern Delta and ensure attainment of the 1.0 dS/m water quality objective.

Salinity control in the southern Delta is complicated due to a variety of factors. The San Joaquin River, which flows into the southern Delta, carries a heavy salt load from upstream, primarily associated with discharges from agricultural lands on the west side of the river, served with Reclamation's Central Valley Project (CVP) water. In addition, due to upstream water infrastructure development, flows in the SJR and its tributaries are lower than they were historically. Complex southern Delta circulation issues, shallow saline groundwater, the export CVP facilities, including export of water and salts from the Sacramento River to the San Joaquin Valley through the CVP facilities, movement of CVP water through DWR's State Water Project (SWP) to the San Joaquin Valley, the CVP and SWP export pumps in the Delta, and hundreds of diversions further complicate the salinity issues. Revised Water Right Decision 1641 (State Water Board, 2000) identifies that upstream diversions of water from the Stanislaus, Tuolumne, Merced, and San Joaquin Rivers collectively significantly reduced flows in the SJR and result in a substantial reduction of the assimilative capacity of the San Joaquin River and southern Delta channels ability to absorb salt loads at concentrations that support agricultural beneficial use. It is reasonable to consider the responsibility of other entities besides Reclamation and DWR for implementing the southern Delta salinity objective as more information becomes available.

The Bay-Delta Plan's LSJR flow objectives and southern Delta salinity objective are complementary. The diversion of water and associated reduction in streamflow contributes to increased salinity. Increased flows under the LSJR flow objectives provide the incidental benefit of a lower salinity irrigation water supply to flush salts early in the irrigation season, and thus provide better salinity conditions during spring germination of crops, which is generally the most salt-sensitive time. The complementary nature of both objectives provides a comprehensive means to put the state's water resources to beneficial use to the fullest extent possible.

7.6 Rationale for Condition 6 – Tuolumne River and Regional Watershed Management Coordination

Optimizing the timing of flows to meet instream flow and other requirements, while also considering other beneficial uses as long as intended benefits to fish and wildlife are not reduced, requires coordination with many parties. Such parties include the Districts, water operators, stakeholders, and agencies with expertise on the Tuolumne River and LSJR watershed in fisheries management, hydrology, operations, monitoring, and assessment. Coordination is intended to maximize the beneficial uses of the state's

waters and to assist with implementation, monitoring, and assessment of the certification conditions.

Participation in a LSJR watershed coordination group is necessary to assist with implementation of certification conditions, coordinate flows in the LSJR watershed to support native resident and migratory fish species, integrate monitoring efforts, and assess the effectiveness of certification conditions and water quality standards, including the February through June LSJR flow objectives. The Bay-Delta Plan identifies the formation of the Stanislaus, Tuolumne, and Merced Working Group (STM Working Group) as a watershed group to provide recommendations regarding multiple requirements of the Bay-Delta Plan such as: biological goals; procedures for implementing the adaptive methods described above; annual adaptive operations plans; and the San Joaquin River Monitoring and Evaluation Program, including special studies and reporting requirements. Recognizing that naming conventions may change over time, a watershed group identified by a name different than “STM Working Group” that performs the same functions and complies with the same requirements as the STM Working Group is considered functionally equivalent to the STM Working Group for the purposes of consistency with the Bay-Delta Plan’s requirements and this condition.

7.7 Rationale for Condition 7 – Annual Review Meeting

Monitoring plans and studies required by this certification will help resource agencies and State Water Board staff evaluate the benefits and impacts associated with implementation of new license conditions on hydrological, biological, and geomorphological resources affected by the Projects throughout the term of the license(s) and any extensions. Annual consultation meetings bring the Districts, resource agencies, and interested stakeholders together to discuss monitoring results and resource trends, and develop adaptive management actions, if necessary, to protect water quality and beneficial uses. Condition 7 requires the Districts to conduct annual consultation meetings with resource agencies and other interested stakeholders to review monitoring reports and discuss ongoing and forecasted operations, including revisions or modifications to monitoring and/or operations that may be needed to protect water quality and beneficial uses.

7.8 Rationale for Condition 8 – Water Quality Monitoring and Management

The Tuolumne River, including La Grange Reservoir, is listed on the Clean Water Act 303(d) list as impaired for elevated water temperatures, mercury, chlorpyrifos, diazinon, Group A pesticides, and toxicity. New Don Pedro Reservoir is listed on the 303(d) list as being impaired for mercury. In addition, the FERC Final EIS identified periods and locations where dissolved oxygen concentrations may exceed the dissolved oxygen water quality objectives, and the FERC Final EIS identified that the use of pesticides for Projects’ operations and maintenance has the potential to cause significant adverse effects on amphibians.

Dissolved oxygen, like water temperature, is a primary driver of the productivity and survival of native resident and migratory salmonids. As discussed in the rationale for

Condition 3, elevated water temperature and depressed dissolved oxygen concentrations can significantly reduce habitat suitability for native resident and migratory fish. On the Tuolumne River, water temperature is largely controlled by flow releases from the reservoirs, which can also affect dissolved oxygen concentrations downstream. Clear relationships have been demonstrated between reduced flow and depressed dissolved oxygen concentrations in other Central Valley waterbodies (Central Valley Regional Water Board, 2005).

As noted earlier in the certification, New Don Pedro Reservoir and the lower Tuolumne River, including La Grange Reservoir, have been identified as being impaired by mercury. Mercury is a potent neurotoxicant that is toxic to humans, wildlife, and fish, and mercury pollution negatively impacts the beneficial uses of many waters of the state. Fish collected from the Tuolumne River and New Don Pedro Reservoir have fish tissue mercury concentrations that exceed safety thresholds to protect fish health, as well as exceed water quality objectives for the protection of human and wildlife consumers of fish. Although mercury occurs naturally in the environment, the Projects' operations exacerbate fish mercury concentrations. The proposed Statewide Mercury Control Program for Reservoirs has identified multiple mechanisms for how reservoir operations can adversely influence mercury bioaccumulation. For example, Projects' operations decrease flow and increase water temperatures which increase methylmercury production and support non-native warm water fish, reduce primary and secondary productivity, reduce inputs from ocean-derived nutrients, and change water chemistry (State Water Board, 2017C). On May 2, 2017, the State Water Board adopted Resolution No. 2017-0027, which approved *Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions* (Provisions). The Provisions provide a consistent regulatory approach throughout the state by setting mercury water quality objectives to protect the beneficial uses associated with the consumption of fish by both people and wildlife.

Condition 8 requires the Districts to develop and implement a Dissolved Oxygen Monitoring and Management Plan, Mercury Monitoring and Management Plan, and Other Constituents Monitoring and Management Plan in consultation with the Tuolumne River Anadromous Fish Committee, the Tuolumne River Watershed Group, and appropriate state agencies, to protect water quality and the beneficial uses of water described in the Bay-Delta Plan and the SR/SJR Basin Plan. Information gathered from implementation of the plans required by Condition 8 will be used to evaluate the effects of actions related to the Projects on water quality, and to identify, assess, and adaptively manage potential adverse water quality impacts.

7.9 Rationale for Condition 9 – Large Woody Material Management

Large woody material contributes to productive aquatic ecosystems and is an important component of stream channel maintenance and the formation of complex aquatic habitat both along stream margins and in active river channels. Large woody material provides cover and holding habitat for native resident and migratory fish and organic

matter that supports the aquatic food web. Large woody material in tributaries of the upper watersheds is carried progressively downstream during high flow events. Prior to the construction of the Projects' dams, high flow events would distribute large woody material from the upper watersheds throughout downstream Projects' reaches. Presently, the Projects prevent most incoming large woody material from entering the Tuolumne River downstream of New Don Pedro Dam. The large woody material is instead impounded by the Projects' reservoirs. For this reason, large woody material of the size capable of influencing channel morphology is largely absent downstream of New Don Pedro Dam and the lower Tuolumne River.

Condition 9 requires the Districts to develop and implement a Large Woody Material Management Plan (LWMMP) in consultation with BLM, USFWS, NMFS, CDFW, and State Water Board staff. Condition 9 is based on recommendations made by CDFW (CDFW, 2018), NMFS (NMFS, 2018), and the FERC Final EIS regarding the need to develop a large woody material management plan. The condition does not specify the specific amounts of large woody material to be placed in the watershed but allows for development of that amount as part of the LWMMP development consultation process. The fisheries agencies and FERC identify varying amounts of large woody material and locations for installing large woody material suggesting the need for additional consultation or analysis to determine the appropriate amount of large woody material and identify specific locations for installation. Accordingly, Condition 9 requires development of a LWMMP that allows for consultation with resource agencies consistent with the FERC staff recommendation. The LWMMP will specify large woody material augmentation procedures and associated monitoring to assess the effectiveness of its implementation in transporting and distributing large woody material throughout the lower Tuolumne River below New Don Pedro Dam.

7.10 Rationale for Condition 10 – Erosion and Sediment Management

Surface erosion and increased overland flow associated with Projects-related construction and maintenance activities could release fine sediment into the Tuolumne River and tributaries. Additionally, the Projects reduce the frequency of seasonal high flow events in river reaches below the Projects' dams that facilitate the transport of fine sediment. Accumulation of fine sediment can degrade water quality and adversely affect fish spawning and incubation success.

To manage existing erosion and minimize future erosion and sediment delivery to Projects stream reaches and reservoirs, Condition 10 requires the Districts to develop and implement an Erosion and Sediment Management Plan (Erosion and Sediment Plan) in consultation with BLM, CDFW, USFWS, NMFS, and State Water Board staff. The Erosion and Sediment Plan will describe methods to inventory, assess, remediate, and monitor erosion sites, and outline site-specific temporary erosion control measures to be implemented during construction and maintenance activities.

7.11 Rationale for Condition 11 – Gravel Augmentation

Relicensing studies identified the need for gravel augmentation in the Tuolumne River below La Grange Dam. The Projects' reservoirs trap gravel originating from upstream sources. This limits available gravel that supports and enhances aquatic habitat in the Tuolumne River. McBain and Trush (2004) estimates that annually 18,800 cubic yards of coarse sediment is trapped behind the Projects' reservoirs and unavailable to supply downstream habitats. This estimate is comparable to the Districts' estimates of annual total and coarse sediment yields to the New Don Pedro Reservoir of 288,000 cubic yards and 28,800 cubic yards, respectively, based on reservoir storage reductions from 1923 to 2011 (Districts, 2013B). The Tuolumne River, downstream of La Grange Dam, exhibits degraded habitat due to Projects' operations. This degraded habitat is characterized by a coarsening of the bed surface and reduction in the frequency and quantity of gravel deposits. This coarsening of the bed surface reduces the habitat suitability of spawning reaches, resulting in a reduction in the survival of fish eggs. Good quality coarse gravel provides substrate for growth of algae and invertebrates, which are important for the aquatic food web.

Condition 11 requires the Districts to develop and implement a Gravel Augmentation Plan in consultation with BLM, CDFW, USFWS, NMFS, and State Water Board staff. The Gravel Augmentation Plan will require the addition of gravel to the Tuolumne River below La Grange Dam, as well as gravel mobilization monitoring. Condition 11 also requires the Districts to annually augment gravel to restore and maintain adequate spawning gravels. The total volume of gravel material required to augment is equivalent to the estimated amount of coarse sediment trapped by the reservoirs over the anticipated life of the license(s) (i.e., 40 years). The development and implementation of the Gravel Augmentation Plan will help address the previous and ongoing trapping of sediment by strategically replacing coarse sediment in identified areas of Project-affected stream reaches. Such gravel augmentation will restore the downstream sediment transport process that has been inhibited since construction of Don Pedro Dam in 1923 and reduce habitat for non-native predators (i.e., filling special run pools). CDFW recommended sourcing aggregate material from areas along the banks of the Tuolumne River where future restoration projects (Condition 12) could be located. As aggregate material is harvested along the streambanks for gravel augmentation activities, new floodplain areas may be created.

7.12 Rationale for Condition 12 – Riparian, Spawning, and Floodplain Management

The Projects have altered the hydrology and natural geomorphic processes along the Tuolumne River corridor. The Projects' dams block sediment recruitment from the upstream basin and have changed the high flow frequencies, caused channel incision, altered peak flows, decreased winter flows, increased summer flows, and changed ramp down rates. The depletion of sediment loads reduces the formation of sediment benches, which affects riparian colonization and succession. Natural floodplain inundation has been greatly reduced in the Tuolumne River corridor.

Floodplain habitats in the Central Valley have been found to have a positive effect on the growth of juvenile native resident and migratory fish, and larger and faster growth has been associated with increased survivorship in the river and to adulthood. The higher growth rates are largely attributed to greater productivity and availability of prey in the floodplains. Riparian habitats also provide allochthonous food sources and shading, which provides temperature benefits and cover to help protect juvenile native resident and migratory fish from predators. Floodplain habitats provide food and refuge from predatory species.

Condition 12 requires the development and implementation of a Riparian, Spawning, and Floodplain Restoration Plan, lowering of existing floodplain elevation to activate the floodplain at lower flow levels, and construction of a minimum of 150 acres of 100 percent suitable floodplain from Years 2 – 11 after license issuance and an additional 15 acres of 100 percent suitable floodplain in the years thereafter unless the Districts can demonstrate to the Deputy Director that habitat and flows are meeting the numeric and narrative goals and objectives for the LSJR.

Increased flows and habitat restoration are needed on the Tuolumne River and in the larger Bay-Delta watershed to achieve the Bay-Delta Plan LSJR narrative and salmon protection objectives. However, the exact combination of floodplain restoration and increased flow needed to achieve these goals is unknown. Accordingly, Condition 12 requires a lower minimum floodplain restoration amount than CDFW's recommendation of 810 acres of 100 percent suitable floodplain creation in the first 10 years of license issuance (CDFW, 2018). The CDFW recommendation for 810 acres of constructed floodplain is based on an Emigrating Salmonid Habitat Estimation (ESHE) analysis (Cain, 2019) and an evaluation of pre-Projects floodplain area, duration, and frequency on the Tuolumne River (USFWS, 2017 as summarized in CDFW, 2018). The analysis identifies that on average 77,640 acre-days of floodplain habitat would need to be produced to mitigate for the Projects' negative impacts to floodplain inundation. Scientific analyses relied on in the CDFW recommendation provide credible estimates of the amount of floodplain needed to rebuild the Tuolumne River salmonid population.

The lower minimum floodplain construction requirement in Condition 12 allows for adaptive management and increased knowledge from monitoring and assessment of the salmon population response to increased flows and habitat restoration to inform the need for additional floodplain restoration. Construction of 150 acres of 100 percent suitable floodplain habitat is a reasonable starting point that allows for evaluation of floodplain restoration projects (in progress and upon completion) combined with increased flows required by Condition 1 to determine if additional floodplain restoration is needed on the Tuolumne River to achieve the Bay-Delta Plan LSJR narrative objective, salmon protection objective, and approved biological goals for the Tuolumne River.

The need for the development and enhancement of riparian and floodplain habitats is consistent with the Bay-Delta Plan Program of Implementation to support and protect

aquatic-life beneficial uses. The inclusion of the development and enhancement of riparian and floodplain habitats will maximize the benefits to native species from the instream flow requirements (Condition 1). Additionally, riparian and floodplain improvement efforts should be coordinated with related efforts, such as gravel augmentation (Condition 11) and large woody material placement (Condition 9).

7.13 Rationale for Condition 13 – Predator Suppression Plan

Predation has been identified as one of the multiple stressors that adversely impacts the survival of juvenile native resident and migratory salmonids. Projects' operations contribute to increased predation pressure on juvenile native resident and migratory fish. For example, increased water temperatures increase the presence of warm-water predatory species, and reduced water velocities increase the presence of submerged aquatic vegetation, which supports predatory species. In addition, other physical conditions in the river likely increase predation exposure to native resident and migratory fish (e.g., gravel pits, diversion dams, and lack of cover). There is large uncertainty in the magnitude of the impact of predation on native salmonid populations, especially the role of predation as a proximate or ultimate cause of mortality to native salmonids. The implementation of non-flow actions such as predator suppression to increase native salmonid survival is necessary to bolster native salmonid populations and is consistent with the Bay-Delta Plan.

7.14 Rationale for Condition 14 – Aquatic Invasive Species Management

Recreational boating opportunities at New Don Pedro Reservoir and along the Tuolumne River have the potential to cause the proliferation of aquatic invasive species. Visitors from different areas provide the potential for a large number of aquatic invasive species to colonize Projects-affected waters and potentially impact beneficial uses. If not properly managed, the use of contact recreational equipment can introduce aquatic invasive species that can deleteriously affect water quality, outcompete native fauna and flora, and degrade Projects' infrastructure.

Aquatic invasive species have the potential to cause adverse impacts to native species in the river. Floating and submerged aquatic vegetation can degrade water quality (e.g., depressed dissolved oxygen) and support non-native predators. In addition to the increase of predation pressure by non-native species, invasive species can compete against native species for limited resources.

Condition 14 requires the Districts to develop and implement a Projects-specific aquatic invasive species plan that includes a public education program for the Projects' recreation facilities. The plan also must include monitoring for early detection of aquatic invasive species vectors to minimize the risk of aquatic invasive species becoming established in Projects waters.

7.15 Rationale for Condition 15 – Recreation Facilities Management

Operations and maintenance activities associated with the Projects' recreation facilities have the potential to impact water quality. Construction of new recreation facilities,

modification of existing recreation facilities, or other ground-disturbing activities could increase soil erosion and fine sediment delivery to Projects' waterways. Fine sediment can adversely affect water quality and associated aquatic habitat by increasing turbidity and total suspended solids. Accumulation of fine sediment in aquatic substrate can adversely affect fish spawning success and limit habitat suitability for many aquatic invertebrates.

Condition 15 requires the Districts to develop and implement a Recreation Facilities Management Plan in consultation with BLM and State Water Board staff. The Recreation Facilities Management Plan will include: (1) measures that would be implemented to protect water quality; (2) recreation activity surveys; and (3) schedules to implement the proposed improvements and new recreation facilities.

7.16 Rationale for Condition 16 – Road Management

Operations and maintenance of Projects' roads have the potential to impact water quality. The potential for water quality impacts depends on factors such as local topography, roadbed material, and drainage characteristics. To avoid and minimize these potential water quality impacts, Condition 16 requires the Districts to develop and implement a Road Management Plan. Condition 16 requirements will help ensure operation and maintenance of the Projects' roads do not cause discharges to surface waters that violate water quality standards.

7.17 Rationale for Condition 17 – Biological Resources Management

Continued operation of the Projects has the potential to impact fish populations, special-status amphibians, and benthic macroinvertebrate (BMI) assemblages in Projects-affected stream reaches. Biological measurements are the most direct indicator of the health and the well-being of fish and wildlife populations. Biological monitoring can detect changes, identify additional information needs, and guide adaptive management of Projects operations. Biological metrics can be used to assess the long-term impact from physical and chemical degradations (e.g., bioassessments). Corresponding biological data and environmental information (e.g., temperature, acres of floodplain inundation, flow pulse timing) can be used to evaluate the impact of management actions on fish and wildlife health. The Bay-Delta Plan Program of Implementation indicates that biological goals (e.g., abundance, spatial extent, survival, and temporal presence) will be used as part of adaptive management and as a way to measure the effectiveness of the program.

Condition 17 requires the Districts to develop and implement a Biological Monitoring and Management Plan in consultation with the Tuolumne River Anadromous Fish Committee, Tuolumne River Watershed Group, and the Lower San Joaquin River Watershed Group. The Biological Monitoring and Management Plan will outline monitoring and adaptive management for anadromous fish, BMI, and amphibians in the Tuolumne River.

7.18 Rationale for Condition 18 – Comprehensive Monitoring, Assessment, Reporting, and Special Studies

A comprehensive monitoring, assessment, reporting, and special studies program is necessary to determine compliance with water quality standards, including the flow and water quality requirements contained in this certification. Monitoring and special studies are also needed: to assess the effectiveness of flow and water quality requirements in this certification; to inform adaptive implementation and adaptive management decisions such as annual operations plans and the timing of pulse flows; to investigate the technical factors involved in water quality control; and to inform future amendments to water quality control plans.

The Bay-Delta Plan Program of Implementation for the LSJR flow objectives requires formation of the San Joaquin River Monitoring and Evaluation Program (SJRMEP), which includes comprehensive monitoring, evaluation, special studies, and reporting associated with implementation of the Bay-Delta Plan flow and water quality objectives. Development and implementation of the Tuolumne River Monitoring Plan may be used as the Tuolumne River portion of the SJRMEP. Fisheries and water quality monitoring along the migratory pathway of Tuolumne River salmonids is reasonable because Projects reduce the volume and pattern of freshwater flows which adversely affects salmon survival along the entire saltwater-to-freshwater migratory pathway of Tuolumne River salmon (State Water Board, 2018A; State Water Board 2017E). The monitoring and assessment required in Condition 18 is consistent with multiple other statewide efforts to improve the quality of and access to monitoring data for the regular assessment of the status of natural resources. For example, the State Water Board maintains a public information webpage that includes information on water quality monitoring, assessment, research, standards, regulation, enforcement, and other pertinent matters. The California Water Quality Monitoring Council (Monitoring Council) develops specific recommendations to improve the coordination and cost-effectiveness of water quality and ecosystem monitoring and assessment, enhance the integration of monitoring data across departments and agencies, and increase public accessibility to monitoring data and assessment information. The 2016 Open and Transparent Water Data Act calls for DWR, in consultation with the Monitoring Council, State Water Board, and CDFW, to create, operate, and maintain a statewide integrated water data platform, develop protocols for data sharing, documentation, quality control, public access, and promotion of open-source platforms and decision support tools related to water data (e.g., groundwater, water quality, fisheries, water project operations).

Comprehensive monitoring is needed to address individual and cumulative impacts of the Projects to fish and wildlife and other beneficial uses. Development and implementation of the comprehensive monitoring, assessment, reporting, and special studies program should be a collaborative effort with the State Water Board and watershed partners, including the Districts. The Tuolumne River is one tributary in the Bay-Delta Watershed that supports native resident and migratory fish that migrate through the Bay-Delta. Accordingly, the Tuolumne River Monitoring Plan should be integrated and coordinated with new and ongoing monitoring programs in the LSJR

watershed and Bay-Delta such as CDFW fish monitoring efforts, Interagency Ecological Program, FERC licensing proceedings, San Joaquin River Restoration Program, and regional water quality monitoring programs. This level of integration is necessary to coordinate flow actions among the salmon-bearing LSJR tributaries, evaluate progress toward achieving biological goals and protection of fish and wildlife beneficial uses, evaluate and prioritize aquatic habitat stressors, and assess the effectiveness of LSJR flow objectives on a regional scale.

The Bay-Delta Plan requires annual and comprehensive (multi-year) reporting of monitoring data. Annual reporting is required to inform the next year's operations and other activities to protect fish and wildlife. In addition to annual reporting, every three to five years, a comprehensive report is required to review the progress toward meeting the biological goals and identify any recommended changes to the implementation of the LSJR flow objectives. The State Water Board will hold public meetings to consider the comprehensive report, technical information, and conclusions or recommendations developed through a peer review process. This information will be used to inform potential adaptive changes to the implementation of the LSJR flow objectives and, as appropriate, future potential changes to the Bay-Delta Plan.

7.19 Rationale for Condition 19 – Construction and Maintenance

Protection of the beneficial uses identified in the SR/SJR Basin Plan requires effluent limitations and other limitations on pollutant discharges from point and nonpoint sources to the Tuolumne River and its tributaries. The Projects may replace or rehabilitate existing recreation facilities and conduct other activities that may require construction or maintenance through the term of the FERC license. Erosion from Projects-related construction and maintenance activities has the potential to result in discharges that violate water quality standards. Condition 19 requires the Districts to comply with the terms of the Construction General Permit, when applicable, and to develop and implement appropriate water quality monitoring and protection plans.

7.20 Rationale for Condition 20 – Reintroduction of Anadromous Fish

The Projects' facilities and other structures limit the upstream extent of habitat that anadromous fish can access. Water quality conditions (e.g., temperature and contaminant concentrations) are typically better in the river at upstream locations compared to downstream locations. La Grange Dam (RM 52.0) represents the upstream barrier to native resident and migratory fish in the lower Tuolumne River. As outlined in the FERC Final EIS, NMFS reserves its authority to prescribe the construction, operation, and maintenance of fishways at the Projects, including measures to determine, ensure, or improve the effectiveness of such prescribed fishways, pursuant to section 18 of the Federal Power Act. The FERC Final EIS estimated that fish passage above the La Grange and New Don Pedro dams may allow access to as much as 18.17 miles of accessible and 31.26 miles of potentially accessible anadromous fish habitat in the upper Tuolumne River Basin. Condition 20 reserves the State Water Board's authority to modify or add conditions to this certification if it is reasonably foreseeable that state- or federally-listed anadromous fish

species will be reintroduced above the Projects' facilities, to ensure adequate protection of beneficial uses identified in the SR/SJR Basin Plan and Bay-Delta Plan and compliance with water quality standards and appropriate requirements of state law.

7.21 Rationale for Conditions 21 through 45

In order to ensure that the Projects operate to meet water quality standards as anticipated, ensure compliance with other relevant state and federal laws, and ensure that the Projects will continue to meet state water quality standards and other appropriate requirements of state law over their lifetime, this certification imposes conditions regarding monitoring, enforcement, and potential future revisions. Additionally, California Code of Regulations, title 23, section 3860 requires imposition of certain mandatory conditions for all certifications, which are included in this certification.

8.0 Conclusion

The State Water Board finds that, with the conditions and limitations imposed under this certification, the Projects will comply with applicable state water quality standards and other appropriate requirements of state law.

9.0 Water Quality Certification Conditions

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER RESOURCES CONTROL BOARD CERTIFIES THAT OPERATION OF THE DON PEDRO HYDROELECTRIC PROJECT AND LA GRANGE HYDROELECTRIC PROJECT (collectively Projects) will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of State law under the following terms and conditions.

CONDITION 1. Instream Flows

Consistent with Condition 23, the State Water Resources Control Board (State Water Board) may re-evaluate and modify the requirements in Condition 1.A through 1.G to allow a voluntary agreement approved by the State Water Board to be used as an alternative means of meeting state water quality standards or other appropriate requirements of state law. An approved voluntary agreement may be used to meet flows in the *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary* (Bay-Delta Plan) and other requirements, and any amendments thereto. If the Bay-Delta Plan is amended in the future to allow flows other than the current Lower San Joaquin River (LSJR) flow objectives, or to allow implementation of a voluntary agreement approved by the State Water Board, the flows required pursuant to Condition 1.B through 1.D may be re-evaluated and updated, if appropriate, through an amendment to this certification. Requirements for coordination with watershed and technical groups such as the Tuolumne River Anadromous Fish Committee, Tuolumne River Watershed Group, and/or Lower San Joaquin River Watershed Group (Condition 6) may be modified consistent with the governance structure established by an approved voluntary agreement. Similarly, annual and dry year reporting requirements in Conditions 1.F and 1.G may be modified or met through submittal of plans or reports to the State Water Board pursuant to the terms of an approved voluntary agreement.

Condition 1 is a suite of instream flow-related requirements that includes Federal Energy Regulatory Commission (FERC) staff recommendations, flows to protect recreational use, and flow requirements to meet state water quality standards and other appropriate requirements of state law. As described in Conditions 1.B through 1.E, base flow, pulse flow, and Bay-Delta Plan flow requirements apply at different locations including River Mile (RM) 51.7 just below La Grange Dam, Gear Road near RM 25, Modesto at RM 16, and on the Lower San Joaquin River at Vernalis.

1.A Water Year Types

The minimum flow requirements that depend on water year type must use the water year classification system for the San Joaquin Basin, referred to as the San Joaquin Valley 60-20-20 Water Supply Index (Index) established in State Water Board Revised Water Right Decision 1641 (State Water Board, 2000) and the California Department of Water Resources (DWR) April 1 San Joaquin Valley unimpaired runoff forecast. Turlock Irrigation District (TID) and Modesto Irrigation District (MID) (collectively, Districts or Licensees) shall identify flow gages and equations used to estimate

unimpaired inflow values for the determination of the Tuolumne River portion of the San Joaquin Valley 60-20-20 Index and specify methods for calculating inflow (i.e., daily and monthly unimpaired flow) to the State Water Board's Deputy Director for the Division of Water Rights (Deputy Director) as required in Condition 1.E and 1.F. The San Joaquin Valley 60-20-20 Index is calculated, in units of thousand acre-feet (TAF), using the monthly sum of unregulated runoff (i.e., unimpaired flow) into New Melones Reservoir (Stanislaus River), New Don Pedro Reservoir (Tuolumne River), Exchequer Reservoir (Merced River), and Millerton Lake (San Joaquin River) and the prior year's water year index volume as shown in the following equation.

$$\text{SJV 60-20-20 Index (TAF)} = 60\%(\text{sum current year April through July unimpaired runoff}) + 20\%(\text{sum current year March through October unimpaired runoff}) + 20\%(\text{the minimum between prior year index volume or 4,500 TAF}).$$

The San Joaquin Valley 60-20-20 Index includes five-water year classifications: Wet (W), Above Normal (AN), Below Normal (BN), Dry (D), and Critically Dry (C), which are defined by the following numeric breakpoints.

- Wet: Index \geq 3,800 TAF
- Above Normal: Index $>$ 3,100 TAF and $<$ 3,800 TAF
- Below Normal: Index $>$ 2,500 TAF and \leq 3,100 TAF
- Dry: Index $>$ 2,100 TAF and \leq 2,500 TAF
- Critically Dry: Index \leq 2,100 TAF

Preliminary water year classifications will be determined by DWR's Bulletin 120¹⁴, publications in February, March, and April and will apply from the 15th day of the month through the 14th day of the next month (i.e., February 15 – March 14, March 15 to April 14, and April 15 to May 14, respectively). For the preliminary Index calculations, the 75 percent exceedance forecast, from the corresponding monthly issue of DWR's Bulletin 120 shall be used for the current water year's April through July unregulated runoff and observed or expected values shall be used for the current water year's October through March unregulated runoff. The final water year classification shall be determined by DWR in May and shall apply from May 15 through February 14 of the following water year, unless the water year classification is updated in October with the DWR Bulletin 120 final water year classification. For the May Index calculation, a 75 percent exceedance forecast, from the May issue of DWR's Bulletin 120, shall be used for the current water year's April through July unregulated runoff and observed values shall be used for the current water year's October through March unregulated

¹⁴ Bulletin 120 is a publication issued four times a year, in the second week of February, March, April, and May by DWR. It contains forecasts of the volume of seasonal runoff from California's major watersheds, and summaries of precipitation, snowpack, reservoir storage, and runoff in various regions of California.

runoff. Within five days of each water year type determination, the Licensees shall provide written notice of the determination to State Water Board staff.

1.B Minimum Instream Flows Below La Grange Dam and Below One or More Potential Points of Diversion or Rediversion

Below La Grange Dam

No later than three months following license issuance, the Licensees shall maintain minimum instream flows specified in Table 1 immediately below La Grange Dam (RM 51.7), as measured at United States Geological Survey (USGS) gage no. 11289650 for Tuolumne River below La Grange Dam near La Grange, California. Minimum flow requirements in Table 1 are defined based on water year types described in Condition 1.A.

Table 1. Minimum Instream Flow Requirements downstream of La Grange Dam, River Mile 51.7 (cubic feet per second)

Time Period	Wet	Above Normal	Below Normal	Dry	Critical
January 1 – 31	225	225	225	200	200
February 1 – 28/29	225	225	225	200	175
March 1 – April 15	250	250	250	225	200
April 16 – May 15	275	275	275	250	200
May 16 – 31	300	300	300	275	225
June 1 – 30	200	200	200	200	200
July 1 – October 15	350	350	350	300	300
October 16 – December 31	275	275	275	225	200

Below Potential New Point (or Points) of Diversion or Rediversion

If the Licensees install and operate one or more infiltration galleries as a new point or points of diversion or rediversion at or near RM 25.9 on the lower Tuolumne River, including through TID’s change petition to add an infiltration gallery as a new point of rediversion near RM 25.9, the Licensees are required to operate the Projects to meet the minimum instream flows as described in Table 2 at a new stream gage to be located downstream of any new point or points of diversion or rediversion. Any necessary approvals, including any approvals by the State Water Board, must be obtained before the point or points of diversion or rediversion can be operated. The Licensees shall also operate the Projects to be consistent with the minimum instream flows in Table 1. The compliance point should directly measure streamflow in the Tuolumne River downstream of the new point or points of diversion or rediversion. Condition 1.E describes gage requirements.

Minimum flow requirements in Tables 1 and 2 are defined based on water year types described in Condition 1.A.

Table 2. Minimum Instream Flow Requirements Downstream of Potential New Point or Points of Diversion or Rediversion near River Mile 25.9 (cubic feet per second)

Time Period	Wet	Above Normal	Below Normal	Dry	Critical
January 1 – 31	225	225	225	200	200
February 1 – 28/29	225	225	225	200	175
March 1 – April 15	250	250	250	225	200
April 16 – May 15	275	275	275	250	200
May 16 – 31	300	300	300	275	225
June 1 – 30	100	100	100	75	75
July 1 – October 15	200	200	200	200	200
October 16 – December 31	275	275	275	225	200

1.C Pulse Flows

No later than three months following license issuance, the Licensees shall release pulse flows as specified in this condition. Pulse flows will be measured at the two compliance points identified here and in Condition 1.E and subject to the requirements of this certification: 1) La Grange, near RM 51.7 (at USGS gage no. 11289650 for Tuolumne River below La Grange Dam near La Grange, California); and 2) a new gage downstream of the proposed point or points of diversion or rediversion at TID’s infiltration gallery near RM 25.9, if the change is approved by the State Water Board’s Division of Water Rights or otherwise installed and operated. Both fall and spring pulse flow volumes are expected to be measured at the same compliance point.

- Fall Pulse Flow: The Licensees shall provide a fall pulse flow during the October 1 through November 30 time period until a total volume of 20,000 acre-feet (AF) is released in Wet and Above Normal years, 15,000 AF in Below Normal and Dry years, and 10,000 AF in Critically Dry years. The fall pulse volume is in addition to the volume of flows set forth in Table 1 and Table 2 for the same period. The timing, magnitude, and duration of the fall pulse flow shall be determined in consultation with the Tuolumne River Anadromous Fish Committee and the Lower San Joaquin River Watershed Group (Condition 6).
- Spring Pulse Flows: If implementing the spring pulse flows at the applicable compliance location (Condition 1.E) would result in a volume of water greater than the volume of water needed to meet the Bay-Delta Plan flow requirements at the applicable compliance location (Condition 1.E), the Licensees may modify the applicable spring pulse flow volume of water to ensure the volume is no greater than that required under the 2018 Bay-Delta Plan, with approval of the Executive Director of the State Water Board following consultation with Tuolumne River Anadromous Fish Committee and the Lower San Joaquin River Watershed

Group (Condition 6). In all instances the minimum instream flows identified in Tables 1 and 2 (Condition 1.B) shall be met.

Spring Floodplain Pulse Flow: During the time period of February 16 through May 31, the Licensees shall provide a floodplain pulse flow of 109,091 AF during Wet and Above Normal water years; 98,182 AF during Below Normal water years; 76,364 AF during Dry water years; and 49,091 AF during Critically Dry water years. Dry year off-ramps shall apply in Below Normal, Dry, or Critically Dry years that occur in a sequence that starts with a Dry or Critically Dry water year and contains no Wet or Above Normal water years. No floodplain pulse shall be required for Dry and Critical water years and the pulse flow shall be reduced to 76,364 AF for Below Normal water years. The floodplain pulse flow volumes shall be based on the preliminary water year type (Condition 1.A) in effect at the time the pulse flow is initiated. If the water year type as determined in the May issue of Bulletin 120 changes from the preliminary water year type initially used to define the pulse flow volume, the Licensees shall consult with the Tuolumne River Anadromous Fish Committee and the Lower San Joaquin River Watershed Group to determine how to adjust the pulse flow requirement. The floodplain pulse flow volume is inclusive of the volume of flows set forth in Table 1 and Table 2 for the same period. The timing, magnitude, and duration of the outmigration pulse flow releases shall be determined in consultation with the Tuolumne River Anadromous Fish Committee and the Lower San Joaquin River Watershed Group (Condition 6).

Spring Outmigration Pulse Flow: The Licensees shall provide an outmigration pulse flow of 150,000 AF during Wet and Above Normal water years; 100,000 AF during Below Normal water years; 75,000 AF during the first Dry water year in a sequence of Dry and Critically Dry water years; and 35,000 AF during the first Critically Dry water year in a sequence of Dry and Critically Dry water years, during the time period of February 16 through May 31. For the second or subsequent Dry and/or Critically Dry water years in a sequence of Dry and Critically Dry water years, dry year off-ramps will take effect requiring 45,000 AF during Dry water years and 11,000 AF during Critically Dry water years. The outmigration pulse flow volumes shall be based on the preliminary water year type (Condition 1.A) in effect at the time the pulse flow is initiated. If the water year type as determined in the May issue of Bulletin 120 changes from the preliminary water year type initially used to define the pulse flow volume, the Licensees shall consult with the Tuolumne River Anadromous Fish Committee to determine how to adjust the pulse flow requirement. The outmigration pulse flow volume is in addition to the volume of flows set forth in Table 1 and Table 2 for the same period. The timing, magnitude, and duration of the outmigration pulse flow releases shall be determined in consultation with the Tuolumne River Anadromous Fish Committee and the Lower San Joaquin River Watershed Group (Condition 6).

1.D Bay-Delta Plan Flow Objectives

No later than six months following license issuance, the Licensees shall operate the Project in a manner consistent with the Bay-Delta Plan and any amendments thereto. This includes achieving the LSJR narrative and numeric water quality objectives established in the Bay-Delta Plan, Table 3, Water Quality Objectives for Fish and Wildlife Beneficial Uses, consistent with measures in the Bay-Delta Plan's program of implementation, including provisions for adaptive implementation. Implementation of the Bay-Delta Plan LSJR flow objectives, including through adaptive implementation, may result in flows that achieve minimum instream flows and pulse flows set forth in Conditions 1.B and 1.C subject to the criteria and approval process set forth in this certification and the Bay-Delta Plan's program of implementation. Adaptive implementation is encouraged as a feature of the program of implementation because it allows for adjustment of the required percentage of unimpaired flow in specified ways to improve the functions of those flows and better achieve the water quality objectives in response to changing information and conditions. In addition, subject to acceptance by the State Water Board, the Bay-Delta Plan expressly allows the use of a voluntary agreement as a means of implementing the LSJR flow objectives. If parties submit voluntary agreements that do not meet the Bay-Delta Plan's requirements, the State Water Board may consider approval of the agreements after conducting any necessary technical and environmental analyses and complying with applicable laws, including complying with appropriate procedures to amend the Bay-Delta Plan as necessary.

The Licensees shall ensure that flows from the Tuolumne River, including flows bypassed, released, or otherwise provided by the Licensees and any other available flows, meet the LSJR flow objectives for the Tuolumne River and contribute to the flow objective at Vernalis.

This condition is not intended to relieve any other water diverter of applicable requirements, or to preclude the State Water Board from setting additional requirements for other diverters to contribute to the achievement of the LSJR flow objectives. If the Licensees are aware of any water diverter with a junior priority diverting or threatening to divert significant quantities of water at a time when the Licensees are required to bypass or release water to meet the LSJR flow objectives, the Licensees shall report that diversion or threatened diversion to the State Water Board, which will consider appropriate action.

Flow requirements from Condition 1.B, 1.C, and 1.D are consolidated into Attachment B – Consolidated Instream Flow Requirements, for convenience and illustrative purposes.

1.E Compliance Methods

No later than one year after license issuance, the Licensees shall submit a compliance methods and monitoring plan for the flow requirements in Conditions 1.B, 1.C, and 1.D to the Deputy Director for consideration of approval. The Deputy Director may require modifications as part of any approval. Compliance methods for Conditions 1.B, 1.C,

and 1.D shall be developed in consultation with the Tuolumne River Watershed Group and the Lower San Joaquin River Watershed Group (Condition 6).

Flows shall be measured in two ways: (1) as an instantaneous flow; and (2) as the 24-hour average of the flow (mean daily flow). The instantaneous flow is the value used to construct the mean daily flow value and shall be measured in 15-minute or more frequent increments. Each instantaneous flow measurement shall be equal to or greater than 90 percent of the flow value designated in Condition 1. The mean daily flow is the average of the incremental readings of instantaneous flow from midnight (12:00 AM) of one day to midnight (12:00 AM) of the next day. The mean daily flow shall be equal to or greater than the flow value designated in Condition 1. The Licensees shall record instantaneous (usually every 15-minutes) flow observations at all gages identified in this certification, consistent with USGS standards, and ensure the gages are calibrated for the full range of flows that are required, including pulse and unimpaired flows. The Licensees shall report any deviation from the required flows to the Deputy Director within 24 hours of the deviation.

Instream flows shall be measured at the compliance points referenced in Condition 1.B, 1.C, and 1.D. unless otherwise approved by the Deputy Director. The existing and potential compliance points are as follows:

- Immediately below La Grange Dam (RM 51.7), as measured at USGS gage no. 11289650 for Tuolumne River below La Grange Dam near La Grange, California (Condition 1.B, 1.C);
- A compliance point will be required if the Licensees install and operate infiltration galleries as a point or points of diversion or rediversion near RM 25.9, including through TID's petition to add an infiltration gallery as new point of rediversion. The second compliance point must be located in the Tuolumne River within 1,500 feet downstream of any new point or points of diversion or rediversion and must directly measure streamflow in the Tuolumne River downstream of the new point or points of diversion or rediversion. Water shall not be diverted at the new point or points of diversion or rediversion until the compliance point is installed and operational (Condition 1.B, 1.C);
- USGS gage no. 1129000 at Modesto (Condition 1.D); and
- San Joaquin River near Vernalis, DWR gage VNS (Condition 1.D).

The Licensees shall comply with applicable California laws and regulations regarding measuring and monitoring water diversions, including California Code of Regulations, title 23, section 933, and amendments thereto, and State Water Board requirements to provide telemetered diversion data on a public website.¹⁵ The Licensees shall post all

¹⁵ Information regarding telemetered requirements are available at the State Water Board's [Telemetry Requirements webpage](https://www.waterboards.ca.gov/waterrights/water_issues/programs/measurement_regulation/telemetry_requirements.html), which is available online at: https://www.waterboards.ca.gov/waterrights/water_issues/programs/measurement_regulation/telemetry_requirements.html. (Last Accessed November 23, 2020)

flow and other data to the California Data Exchange Center or successor website, within 24-hours of flow measurement, unless otherwise approved by the Deputy Director. The Licensees shall publicly notice at an easily accessible location on the internet all known events that will affect flow releases (e.g., powerhouse outages, construction, etc.) on the lower Tuolumne River below New Don Pedro Dam a minimum of 30 days in advance, or as soon as known if events are identified less than 30 days in advance.

At minimum, the compliance methods and monitoring plan shall include the following:

1. Locations where the Licensees will monitor compliance with the requirements in the license related to streamflows and reservoir levels.
2. Equipment used by the Licensees to monitor compliance with the requirements in the license related to streamflows and reservoir levels.
3. How the equipment used by the Licensees to monitor compliance with the requirements in the license related to streamflows and reservoir levels is deployed, set (e.g., frequency of data collection), operated and maintained, and calibrated.
4. How data are retrieved from the equipment used by the Licensees to monitor compliance with the requirements in the license related to streamflows and reservoir levels, including frequency of data downloads, quality assurance/quality control procedures, and data storage.
5. How the Licensees make streamflow and reservoir level data available to FERC, resource agencies, and the public.
6. High resolution description of the calculation of monthly and daily unimpaired flow including equations, equation terms, locations of gages, and methods for estimating specific terms that include field measurements and quantitative methods for transforming field measurements into estimates for specific equation terms (e.g., reservoir storage and diversions).
7. How the Licensees will update the plan during the term of the FERC license, including provisions for consultation.
8. An evaluation of public safety risk to recreational or other river users caused by rapid flow or river stage fluctuations and measures to reduce any public safety risk potentially caused by such fluctuations. At a minimum, if the evaluation demonstrates potential risk, the Licensees shall publicly notice such fluctuations at an easily accessible location on the internet in addition to implementing measures identified in the evaluation.

1.E.1 Minimum Instream Flows

The flow schedules in Table 1 and Table 2 specify minimum instream flows, by time period and water year type, to be met at the compliance points required by Condition 1. Minimum instream flows are expressed in cubic feet per second (cfs) as a mean daily average.

1.E.2 Pulse Flows

Fall Pulse Flow: Flows shall be measured and monitored at the compliance points required by Condition 1. The exact timing of the beginning of the pulse flow release shall be determined by the Tuolumne River Anadromous Fish Committee and coordinated with the Lower San Joaquin River Watershed Group (Condition 6). The Licensees shall implement the fall block pulse flow volumes identified in Section 1.C. The volume of water attributed to minimum instream flows shall not be included in the pulse flow volume. The total volume attributed to the pulse flow includes flows from the onset of the ramp up to the pulse flow to the return to the designated minimum instream flow.

Spring Pulse Flows: Flows shall be measured and monitored at the compliance points required by Condition 1. The configuration of all releases, including flows to be released on each day, and the exact timing of the beginning of the releases shall be determined by the Tuolumne River Anadromous Fish Committee and coordinated with the Lower San Joaquin River Watershed Group (Condition 6). The Licensees shall implement the spring pulse flow volumes identified in Section 1.C. The total volume attributed to the pulse flow includes flows from the onset of the ramp up to the pulse flow to the return to the designated minimum instream flow. The volume of water attributed to minimum instream flows shall not be included in the pulse flow volume.

1.E.3 LSJR Flow Objectives

The Licensees shall develop compliance methods for the LSJR flow objectives specific to the Tuolumne River that are consistent with the Bay-Delta Plan and submit the methods to the State Water Board's Executive Director (Executive Director) for consideration of approval. The Executive Director may require modifications as part of any approval. For the Tuolumne River, the Bay-Delta Plan-required compliance points for the LSJR flow objectives are on the Tuolumne River at Modesto USGS gage no. 1129000 and on the San Joaquin River near Vernalis at DWR gage code VNS. The Licensees must provide a high-resolution description of the calculation of monthly and daily unimpaired flow, including equations, equation terms, locations of gages, and methods for estimating specific equation terms (e.g., reservoir storage). Field measurement data and equations used to calculate daily and monthly unimpaired flow should be easily accessible by the public and State Water Board.

Compliance methods approved by the State Water Board or Executive Director in accordance with the Bay-Delta Plan shall be used to inform the Licensees' development of compliance methods specific to the Tuolumne River as required by this condition.

1.E.4 Unplanned Temporary Flow Modifications

The flows specified in Condition 1 may be temporarily modified in the event of equipment malfunction reasonably beyond the control of the Licensees, as directed by law enforcement authorities, or in an emergency. An emergency is defined as an unforeseen event that is reasonably out of the control of the Licensees and requires the Licensees to take immediate action, either unilaterally or under instruction by law

enforcement or other regulatory agency staff, to prevent imminent loss of human life or substantial property damage. An emergency may include, but is not limited to, natural events such as: landslides, storms, or wildfires; malfunction or failure of Projects works; and recreation accidents. Drought is not considered an emergency for purposes of this condition.

When possible, the Licensees shall notify the Deputy Director prior to any unplanned temporary instream flow modification. In all instances, the Licensees shall notify the Deputy Director within 24 hours of the beginning of any unplanned temporary streamflow modification. Within 96 hours of the beginning of any unplanned temporary stream flow modification, the Licensees shall provide the Deputy Director with an update of the conditions associated with the modification, an estimated timeline for returning to the required flows, and any measures taken to reasonably protect fish and wildlife beneficial uses in light of the circumstances.

Within 30 days of any unplanned temporary instream flow modification, the Licensees shall provide the Deputy Director with: (1) a written description of the modification and reason(s) for its necessity; (2) photo documentation of the emergency or reason for the flow modification; (3) a timeline for returning to the required flow or timeline when the required flow resumed; (4) a description of corrective actions taken in response to any unplanned under-release of flow; and (5) a plan to prevent the need for modification of flows resulting from a similar emergency or event.

1.F Annual Operations Plan

The Licensees shall prepare an Annual Operations Plan that describes actions, operations, and methods for meeting instream flows identified in Condition 1, temperature and carryover storage requirements in Condition 3, and dissolved oxygen targets identified in Condition 8. The Annual Operations Plan shall cover the current water year. The Annual Operations Plan shall identify how instream flow requirements, carryover storage requirements, dissolved oxygen objectives, and temperature targets will be achieved under a reasonable range of hydrological conditions, including hydrological conditions that are reasonably expected in the year for which the plan is prepared. The Annual Operations Plan shall identify appropriate strategies for meeting flow, dissolved oxygen, temperature, and carryover storage requirements and identify relevant parameters such as precipitation volume, monthly reservoir storage, as well as precipitation, inflow, storage patterns, and resulting streamflow. The Annual Operations Plan shall identify how Bay-Delta Plan flows and other flow requirements are calculated or measured, identify compliance methods for minimum, pulse, and Bay-Delta Plan flows, and how adjustments will be made as updated information regarding the present year's hydrology becomes available, such as DWR's San Joaquin River water year forecast and inflow volume forecasts from California Nevada River Forecast Center. Equations and gage locations shall be provided as part of the description of flow calculations that will be used to meet requirements.

By November 1 of each year, the Licensees shall submit a preliminary Annual Operations Plan to the Deputy Director, the Tuolumne River Watershed Group, and the Lower San Joaquin River Watershed Group (Condition 6), for review and recommendations. This preliminary plan must provide information about preliminary operational strategies for meeting instream flow requirements, water delivery demand, and reservoir storage targets given available information about existing conditions (e.g., end of September reservoir storage) and precipitation projections (e.g., inflow forecasts from California Nevada River Forecast Center and San Joaquin River water year forecast). The preliminary annual operations plan shall cover the current water year (October 1 – September 30 of the following year). After considering recommendations and projections for the water year, the Licensees shall submit a proposed Annual Operations Plan to the Executive Director by January 10 of the current water year for consideration of approval. When acting on requests for approval of an Annual Operations Plan, the State Water Board or Executive Director will consider the recommendations of the Tuolumne River Watershed Group and Lower San Joaquin River Watershed Group (if functionally equivalent to the Stanislaus, Tuolumne, Merced [STM] Working Group), along with the requirements and procedures for adaptive implementation and other relevant information. The Executive Director or State Water Board may require modifications to the proposed Annual Operations Plan, based on advice from the watershed groups or other relevant information, as part of approval.

As hydrologic conditions change in the current water year such that revisions need to be made to an approved Annual Operations Plan, the Licensees shall submit a Revised Operations Plan to the Executive Director for consideration of approval after consultation with the Tuolumne River Watershed Group and the Lower San Joaquin River Watershed Group (if functionally equivalent to the STM Working Group). The State Water Board recognizes that an annual operations plan is based on a forecast from the best available information and may not reflect actual conditions that occur during the February through June period. Accordingly, the State Water Board will consider this factor and whether the hydrologic condition could have been planned for in evaluating deviations from approved annual operations plans. The Executive Director may require modifications to the Revised Operations Plan as part of any approval.

The annual operations plans and revisions thereto shall be implemented upon approval of the Executive Director or State Water Board and any other required approvals. The Licensees shall file with FERC the approved Annual Operations Plan, and any approved revisions thereto.

The Bay-Delta Plan requires annual adaptive operations plans for adaptive implementation actions that achieve the LSJR flow objectives. The annual operations plan required under this condition may be used to fulfill the Bay-Delta Plan requirements for annual adaptive operations plans provided that the requirements for annual adaptive operations plans and related requirements in the Bay-Delta Plan are met.

1.G Dry Year Management Operations Plan

No later than one year following license issuance, the Licensees shall submit a Dry Year Management Operations Plan to the Deputy Director for consideration of approval. The Deputy Director may require modifications as part of any approval. The Dry Year Management Operations Plan should outline operations strategies for optimizing water supply reliability for instream flows and water deliveries during Dry years in anticipation of multiple, sequential dry years. Dry-year water management strategies should be designed to minimize the frequency of requesting modification of the flow requirements of this certification as described in Condition 4 (Extremely Dry Conditions).

The Dry Year Management Operations Plan shall be developed in consultation with the Tuolumne River Watershed Group (Condition 6), and include, at minimum, a description of the process for allocating water to users during years with and without water shortages, a description of options for reservoir storage targets that address water deliveries and the need for instream flows and downstream temperature management in anticipation of multiple, sequential dry year conditions, and management strategies to guide operations in multiple, sequential, dry years. Management strategies should include water allocation approaches that assess risks and costs of meeting immediate and future water supply needs and instream flow requirements, considering the uncertainty of future inflows and the risk of drought. This effort should be coordinated with development of carryover storage requirements required in Condition 3. Implementing dry-year operations strategies should be exhausted prior to using the process outlined in Condition 4 (Extremely Dry Conditions).

To avoid duplication of dry year planning measures, the Licensees may incorporate the elements of FERC's Dry Year Management Operations Plan into any other drought management plan required by the license(s); doing so, however, does not relieve the Licensees of any obligation to comply with this condition.

The Dry Year Management Operations Plan shall be implemented upon approval of the Deputy Director and any other required approvals. The Licensees shall file with FERC the Deputy Director-approved Dry Year Management Operations Plan, and any approved amendments thereto.

CONDITION 2. Ramping Rates

The Licensees shall, upon issuance of the license, implement the down-ramping rates identified below for all controllable flow rate changes greater than 200 cfs.

- The decreasing rate of change shall be no more than two-inches per hour as measured at the existing gage near La Grange Dam (USGS gage no. 11289650) and change shall be less than or equal to 500 cfs in any one 24-hour period, unless a higher rate of change is required by USACE's *Don Pedro Lake Reservoir Regulation for Flood Control (USACE, 1972)*, and amendments thereto, to avoid interference with flood control operations necessary to ensure safety of people and property.

The Licensees may request Deputy Director approval to modify the ramping rates required by this condition for purposes of avoiding adverse impacts to aquatic species. The Deputy Director may require modifications as part of any approval. Any such request shall be supported by the Tuolumne River Anadromous Fish Committee based on supporting technical information. The Licensees shall provide documentation of Tuolumne River Anadromous Fish Committee support for the modification and supporting information as part of any request.

No later than one month following license issuance, the Licensees shall notify the Deputy Director whether facility modifications are needed to meet the specified ramping rates, and specifically identify what modifications are needed to meet the ramping rates associated with specific ranges of flows required per the certification. If facility modifications are necessary to achieve the specified ramping rates, the modifications shall be completed no later than three years after license issuance. The Licensees are required to make a good faith effort to provide the specified ramping rates until such facility modifications are completed.

CONDITION 3. Temperature Management and Monitoring Plan

No later than six months following license issuance, the Licensees shall initiate a collaborative effort through the Tuolumne River Watershed Group (Condition 6) to identify comprehensive reservoir operation requirements, including carryover storage, needed to maintain suitable downstream temperature targets identified in Table 3. Table 3 temperature targets may be updated with new requirements, including biological and environmental targets for temperature, if incorporated into a voluntary agreement approved by the State Water Board, or alternate temperature targets approved by the Executive Director that are developed by the Licensees based on scientific information demonstrating reasonable protection of native fish.

Table 3. Tuolumne River Temperature Targets

Time Period¹	Water-Year Type (Condition 1)	Temperature (7DADM)	Location¹
January 1 – May 31	Wet Above Normal Below Normal	14°C (57.2°F)	Hickman Bridge (RM 31.8)
	Dry Critically Dry		Robert’s Ferry Bridge (RM 39.5)
February 15 – May 31 February 15 – May 31 February 15 – May 31 February 15 – May 31 February 15 – April 30	Wet Above Normal Below Normal Dry Critically Dry	18°C (64.4°F)	Shiloh Bridge (RM 3.4)
June 1 – September 30	Wet Above Normal Below Normal	18°C (64.4°F)	Robert’s Ferry Bridge (RM 39.5)
	Dry Critically Dry		Turlock State Park (RM 42.8)
October 1 – October 31	Wet Above Normal Below Normal	18°C (64.4°F)	Shiloh Bridge (RM 3.4)
October 1 – October 15	Dry Critically Dry	20°C (68.0°F)	
October 15 – October 31		18°C (64.4°F)	
October 16 – December 31	Wet Above Normal Below Normal	13°C (55.4°F)	Robert’s Ferry Bridge (RM 39.5)
	Dry Critically Dry		Basso Bridge (RM 47.4)

Abbreviations: 7DADM – 7-day average of the daily maximum; RM – River Mile

¹ Alternative locations and temperatures may be approved by the Deputy Director as part of approval of the Water Temperature Management Plan or amendments thereto. If temperature targets cannot be met for the entire time periods identified, then the plan should identify the frequency or percentage of time that it is anticipated that the temperature targets will be attainable for the range of water years, time frames, and locations. Requests for modifications to Table 3 temperature targets shall be developed in consultation with the Tuolumne River Anadromous Fish Committee (Condition 6) and supported with scientific information.

The Licensees shall take actions within their reasonable control to achieve the water temperatures outlined in Table 3 and any amendments to the temperature targets as

approved in the Licensees' Annual Operations Plan (Condition 1) or amendments to the Water Temperature Management and Monitoring Plan. No later than one year following license issuance, the Licensees shall submit a Water Temperature Monitoring and Management Plan to the Deputy Director for review and consideration of approval. The Deputy Director may require modifications as part of any approval. The Licensees shall develop the Water Temperature Monitoring and Management Plan in consultation with the Tuolumne River Anadromous Fish Committee (Condition 6). The Licensees shall install and operate four to eight water temperature monitoring devices no later than two years following license issuance. At a minimum, the Water Temperature Management and Monitoring Plan shall include:

- A statement of the goals and objectives of the plan;
- A description of proposed monitoring and associated protocols, including monitoring locations, schedule/frequency, equipment to be used, and the quality assurance project plan;
- A comprehensive description of factors that may affect water temperature. This description shall also identify whether the factors are associated with the Projects' operations;
- A comprehensive description of reasonable actions to achieve the temperature targets, which may include temperature control structures, riparian shade and other restoration measures, adaptive implementation of Bay-Delta Plan LSJR flows, modified or additional reservoir releases, cold water bypass, reduced delivery for consumptive use, and modified power supply operations. The plan shall also identify the actions the Licensees proposes to implement and the schedule for implementation;
- Proposed carryover (end of September) storage requirements that can meet and maintain temperature targets in Table 3 in most years (see more in Carryover Storage section below);
- Other reservoir requirements may include refill requirements after dry year sequences, minimum allocations, and options for relaxing the carryover storage requirements to meet the minimum allocation during times of extreme drought;
- A detailed reporting schedule, that includes:
 - Reporting on inability to meet water temperature targets; and
 - Posting monitoring data to a publicly available website in real-time (see Condition 1.E);
- A plan for corrective measures and a timetable for implementation, if data indicate that the Projects may be increasing water temperature and/or adversely affecting water quality, including adjustments to Projects' operations or physical solutions;
- A description of the modeling and assumptions that will be used to develop annual operations plans (Condition 1) so that the Projects can achieve the temperature targets in Table 3 within the reasonable control of the Licensees;
- Any requests for modifications to the monitoring locations identified in Table 3, including supporting information for any proposed modifications. Proposed

locations shall be selected with consideration for site accessibility, equivalency to existing location, and species presence and management; and

- A summary of any comments received in development of the plan and how the comments were addressed.

Inability to Meet Temperature Targets Due to Uncontrollable Factors. If the Licensees are unable to meet the temperature targets of this certification due to an event or circumstance beyond their reasonable control, the Licensees shall file a notice with the Deputy Director within 10 days of such event or circumstance. The notice shall describe the event or circumstance causing the inability to meet the target. Such notice shall include a statement of specific actions that the Licensees have or will take to address the event or circumstance and how they will manage the cold-water pool or river flow to minimize exceedances of Table 3. If the Deputy Director finds that there is a pattern of exceedances within the Licensees' reasonable control that could result in adverse impacts to fishery resources, the Deputy Director may take remedial action to address the exceedances (e.g., requiring the Licensees to file a plan identifying any feasible measures that the Licensees may undertake, requiring the Licensees to file modifications to license(s) requirements, directing implementation of corrective actions in the Water Temperature Monitoring and Management Plan, etc.) in addition to other actions within the State Water Board's authority.

Carryover Storage. In developing the carryover storage requirements, the Licensees shall consider and incorporate site-specific information, local conditions, and knowledge from local experts. The feasibility of carryover storage options shall be evaluated and considered as part of developing the carryover storage requirements. The carryover storage requirements shall be designed to provide suitable stream temperatures, avoid significant adverse temperature or other impacts on fish and wildlife and, if feasible, on other beneficial uses. The Licensees shall target suitable temperature conditions for freshwater life stages of Chinook salmon and Central Valley steelhead, which are identified in Table 3. The carryover storage requirements shall include any monitoring and reporting that will be implemented (may include reference to monitoring conducted under other certification conditions), as well as updates to the requirements, if needed, during the term of the FERC license(s).

The Licensees shall implement the Temperature Management and Monitoring Plan upon receipt of Deputy Director and any other required approvals in accordance with the schedule specified therein. The Licensees shall file with FERC the Deputy Director-approved Temperature Management and Monitoring Plan, and any approved amendments thereto.

Prior to Deputy Director approval of the Temperature Management and Monitoring Plan, the Licensees shall monitor and report temperature conditions and manage diversions, releases, and operations to achieve temperature targets (Table 3) in combination with approved biological goals (currently under consideration by the State Water Board pursuant to the Bay-Delta Plan).

If the Licensees do not have approved carryover storage requirements one year after license issuance, the Deputy Director reserves the authority to require interim carryover storage to achieve temperature requirements following notice and an opportunity for comment. The Licensees shall file with FERC the Deputy Director's interim carryover storage requirements, and any approved amendments thereto. The Licensees shall implement the Deputy Director's interim carryover storage requirements upon receipt, in accordance with the schedule and requirements specified therein.

CONDITION 4. Extremely Dry Conditions

In the event of extremely dry conditions, which may include a year in which the Governor of the State of California declares a drought emergency for Tuolumne County or Stanislaus County, or both, or multiple consecutive Dry or Critically Dry water years, the Licensees may request modification of the flow and flow-related requirements, including carryover storage requirements, of this certification. If the Licensees anticipate that they may request modification pursuant to this condition, the Licensees shall notify the agencies in the Tuolumne River Watershed Group (Condition 6), the Bureau of Land Management (BLM), and Deputy Director of the Licensees' concerns related to flows and related requirements as early as possible, and no later than March 15 of the year in which a request may be submitted. If the Licensees request modification pursuant to this condition, the Licensees shall develop a Revised Operations Plan in consultation with the agencies in the Tuolumne River Watershed Group (Condition 6) and BLM for flows during the extremely dry conditions.

The Licensees shall provide interested parties with notice of the proposed Revised Operations Plan at least seven days prior to submittal to the Deputy Director. Whenever possible, the Licensees shall provide an opportunity for interested parties to comment on the proposed Revised Operations Plan prior to submittal to the Deputy Director and provide such comments to the Deputy Director as part of submittal of the Revised Operations Plan. The Licensees' request shall include: an estimate of water to be saved and the alternative beneficial uses for which the water is being conserved; a timeline for the return to regular operations; proposed monitoring for the revised operations, including an estimation of any impacts the revised operations may have on any beneficial uses of water; identification of measures to reasonably protect beneficial uses under the circumstances; and proposed water conservation measures that will be implemented. If conservation measures are not applicable, the Licensees shall describe the circumstances and justification for not implementing water conservation measures. Any information that is required by FERC's Drought Management Plan (or equivalent document in the final Projects' license(s)) may be integrated into the Revised Operations Plan so as not to duplicate efforts.

The Licensees shall submit the proposed Revised Operations Plan to the Deputy Director for review and consideration for approval. The Licensees shall also provide a summary of any comments received and how the comments were addressed. The Deputy Director may require modifications to the Revised Operations Plan as part of any approval. The Licensees may implement the Revised Operations Plan upon receipt

of Deputy Director and other required approvals, in accordance with the schedule and requirements specified therein. The Licensees shall file with FERC the Deputy Director-approved Revised Operations Plan, and any approved amendments thereto.

CONDITION 5. Southern Delta Salinity Objective

The Licensees shall not divert water when, in order to meet the southern Delta salinity objective established in the Bay-Delta Plan, the United States Bureau of Reclamation (Reclamation) is releasing stored water from New Melones Reservoir to avoid exceedance of 0.7 deciSiemens/meter (dS/m) electrical conductivity (EC) at Vernalis (April – August) and 1.0 dS/m EC at Vernalis (September – March). In water years when Reclamation may release stored water from New Melones to achieve the Vernalis salinity objective, the Licensees shall consult with Reclamation and State Water Board staff on at least a monthly basis, and more often as needed, to determine whether this condition applies. The Deputy Director may modify or provide additional direction regarding the required consultation process.

This restriction shall not apply when, in the judgment of the Deputy Director, curtailment of diversion will not be effective in lowering the salinity concentration at Vernalis, or when in the absence of the Licensees' diversion, hydraulic continuity would not exist between the Licensees' point of diversion and Vernalis. This restriction shall also not apply when, in the judgment of the Deputy Director, releases of stored water from New Melones to achieve salinity requirements would be unnecessary if Reclamation curtailed diversion of natural flow being diverted at other Reclamation facilities in the San Joaquin River watershed under water rights that are junior in priority to the Licensees.

This condition is not intended to relieve any other diverter of responsibility to contribute to achievement of the southern Delta salinity objective. If the Licensees are aware of any person or entity with a junior priority diverting or threatening to divert significant quantities of water at a time when the Licensees are required to bypass or release water under this condition, the Licensees should report that diversion or threatened diversion to the Deputy Director, who may initiate appropriate actions to address that diverter's responsibility to contribute to achievement of the southern Delta salinity objective, as appropriate.

This condition shall apply unless and until modified through a proceeding by the State Water Board to allocate responsibility for meeting the southern Delta salinity objective in the Bay-Delta Plan.

CONDITION 6. Tuolumne River and Regional Watershed Management Coordination

The Licensees shall form and participate in a Tuolumne River Watershed Group. The Licensee shall participate in the Lower San Joaquin River Watershed Group, as described below, or participate in an alternative governance entity established pursuant to a voluntary agreement approved by the State Water Board that performs similar functions.

Tuolumne River Watershed Group

No later than three months following license issuance, the Licensees shall establish and convene a Tuolumne River Watershed Group, or functionally equivalent group, for the purpose of consultation on ecological topics related to the development and review of plans required by this certification and to provide recommendations to the Licensees as expressly provided in this certification. Examples of topics the Tuolumne River Watershed Group shall consult on include, but are not limited to, the implementation, monitoring, and effectiveness assessment of the flow requirements identified in this certification. The Tuolumne River Watershed Group may also develop materials and information to inform coordination of Tuolumne River flows with flows from the other salmon-bearing tributaries to the LSJR, specifically the Stanislaus and Merced Rivers. In order to ensure adequate coordination, and unless persons or entities decline to participate, the Tuolumne River Watershed Group shall include, at a minimum, and in addition to the Licensees' representative or representatives, representatives from the following entities who have expertise in San Joaquin River fisheries management, hydrology, operations, land management, and monitoring and assessment needs: State Water Board, California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), United States Fish and Wildlife Service (USFWS), BLM, and other members identified by the Deputy Director. The State Water Board staff overseeing implementation of this water quality certification shall also be included in all meetings related to development of information related to, or implementation of, provisions of this certification. Depending on the topic, it is also highly recommended, and the Deputy Director may direct, that the Tuolumne River Watershed Group include water diverters and users on the Tuolumne River and nongovernmental organizations with appropriate expertise.

The Tuolumne River Watershed Group may convene individual committees, as needed, to address specific topics or issues or to invite additional expertise. The committees may include representatives from all or a subset of the entities of the watershed group as well as representatives from other sectors with appropriate expertise.

The Licensees are required to convene a Tuolumne River Anadromous Fish Committee, a subgroup of the Tuolumne River Watershed Group. The Licensees shall host the first meeting of the Tuolumne River Anadromous Fish Committee no later than three months following license issuance. The Licensees shall organize and host all future meetings of the Tuolumne River Anadromous Fish Committee. Meetings shall be held at least monthly unless otherwise agreed to by the committee. The Tuolumne River Anadromous Fish Committee shall be comprised of one representative each from TID, Modesto Irrigation District, CDFW, NMFS, USFWS, the State Water Board, and at least one nongovernmental organization with anadromous fisheries expertise. Tuolumne River Anadromous Fish Committee members shall be selected by each respective organization.

Lower San Joaquin River Watershed Group

The Licensees shall participate in a Lower San Joaquin River Watershed Group convened by the State Water Board or other appropriate regional watershed group established to assist with the implementation, monitoring, and assessment of the Bay-Delta Plan. This regional group will serve the purposes and functions of the Stanislaus, Tuolumne, and Merced (STM) Working Group as described in the Bay-Delta Plan. The State Water Board will seek recommendations from the regional watershed group (i.e., STM Working Group) regarding: biological goals; procedures for implementing the adaptive methods; annual adaptive operations plan; and the San Joaquin River Monitoring and Evaluation Program, including special studies and reporting requirements.

The Lower San Joaquin River Watershed Group shall include, at a minimum, representatives from the following entities who have expertise in LSJR, Stanislaus, Tuolumne, and Merced rivers fisheries management, hydrology, operations, and monitoring and assessment needs: CDFW; NMFS; USFWS; and water diverters and users on the Stanislaus, Tuolumne, and Merced rivers. The Lower San Joaquin River Watershed Group shall also include State Water Board staff and may include any other persons or entities the Executive Director determines to have appropriate expertise, including nongovernmental organizations. To the extent practicable, the membership of the Lower San Joaquin Watershed Group should achieve a balance of interests such that no one interest constitutes a majority of the group.

CONDITION 7. Annual Review Meeting

No later than one year following license issuance, the Licensees shall establish an annual meeting that is open to the public to review and discuss implementation of the Projects' license(s). At a minimum and at least 30 days prior to the meeting, the Licensees shall invite the Tuolumne River Watershed Group (Condition 6), BLM, and other interested stakeholders to participate in the annual review meeting. The Licensees shall notice the annual review meeting at least 30 days in advance on the Tuolumne River Technical Advisory Committee [webpage](#)¹⁶ or successor website or forum. The Tuolumne River Watershed Group shall establish communication protocols to facilitate interactions between group members that allow for open participation and communication between all parties.

The first annual review meeting shall be held no later than the first full calendar year after license issuance. At the annual review meetings, the Licensees shall:

- Review the status of implementing the FERC license(s) and certification conditions;
- Review monitoring data from all monitoring conducted the previous year;

¹⁶ Available at: <http://tuolumnerivertac.com/>

- Review elements of current year maintenance plans and any non-routine maintenance;
- Discuss foreseeable changes to the Projects' facilities or features;
- Discuss the status of salmonid reintroduction plans;
- Discuss necessary revisions or modifications to plans approved as part of this certification; and
- Discuss species listing implications, including:
 - Needed protection measures for species newly listed as threatened, endangered, candidate, or sensitive;
 - Changes to existing plans for actions that may no longer be necessary due to delisting of a species; and
 - Changes to existing plans to incorporate new information about species requiring protection.

Materials shall be provided to the Tuolumne River Watershed Group (Condition 6), BLM, and other interested stakeholders at least 30 days prior to the annual meeting. The Licensees shall submit a report to the State Water Board that summarizes the annual review meeting no later than 60 days following each meeting.

CONDITION 8. Water Quality Monitoring and Management

8.A Dissolved Oxygen Monitoring and Management Plan

The Licensees shall take all actions within their reasonable control to meet the dissolved oxygen water quality objectives outlined in Table 4 below and any amendments thereto as approved in the Licensees' Annual Operations Plan (Condition 1). No later than six months following license issuance, the Licensees shall submit a Dissolved Oxygen Management Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Licensees shall develop the Dissolved Oxygen Monitoring and Management Plan in consultation with the Tuolumne River Anadromous Fish Committee (Condition 6) and Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board) staff. No later than 18 months following license issuance, the Licensees shall operate a minimum of two continuous real-time dissolved oxygen monitoring stations to measure compliance with the applicable dissolved oxygen water quality objectives for the lower Tuolumne River (Table 4). At a minimum, the Dissolved Oxygen Management Plan shall include:

- A statement of the goals and objectives for the plan;
- A description of proposed monitoring and associated protocols, including monitoring locations, frequency (i.e., continuous), equipment to be used, and the quality assurance project plan. The description shall include a minimum of two continuous real-time dissolved oxygen monitoring stations that will be operated to measure compliance with the dissolved oxygen water quality objectives in the Tuolumne River, rationale for the compliance locations, and evaluation of the

- need for additional dissolved oxygen monitoring stations to inform habitat suitability;
- A comprehensive description of the Projects’ impact on dissolved oxygen concentrations in the lower Tuolumne River. This description shall also identify the magnitude of the Projects’ impact in relationship to other environmental factors influencing dissolved oxygen in the Tuolumne River;
 - A detailed reporting schedule that includes:
 - Summarizing, evaluating, and reporting on the data; and
 - Posting monitoring station data to a publicly available website in real-time (see Condition 1.E);
 - A plan for corrective measures and a timetable for implementation if data indicate that the Projects may be decreasing dissolved oxygen concentrations and/or adversely affecting water quality;
 - A description of the modeling and assumptions or data that will be used to develop annual operation plans (Condition 1) to meet the dissolved oxygen requirements in Table 4 at the compliance points identified in the plan; and
 - A summary of any comments received in development of the plan and how the comments were addressed.

Table 4. Tuolumne River Dissolved Oxygen Water Quality Objectives¹

River Section	Water Quality Objective (mg/l)¹	Time Period
Tuolumne River from Waterford to La Grange	8.0	October 15 – June 15
	7.0	June 16 – October 14
Tuolumne River from Waterford to the confluence with San Joaquin River	7.0	All Year
Sources to New Don Pedro Reservoir and New Don Pedro and La Grange Reservoirs		

¹ SR/SJR Basin Plan. Dissolved oxygen concentrations below the levels presented in this table are prohibited at all times. Subject to the Deputy Director’s approval, the requirements in this table may be superseded by appropriate dissolved oxygen requirements adopted in an amended SR/SJR Basin Plan.

Inability to Meet Dissolved Oxygen Requirements Due to Uncontrollable Factors. If the Licensees are unable to meet the dissolved oxygen requirements of this certification due to an event or circumstance beyond its reasonable control, the Licensees shall file a notice with the Deputy Director within 10 days of such event or circumstance. The

notice shall describe the event or circumstance causing the inability to meet the requirement. Such notice shall include a statement of specific actions that the Licensees have or will take to address the event or circumstance and how they will manage the cold-water pool or river flow to minimize exceedances of Table 4. If the Deputy Director finds that there is a pattern of exceedances within the Licensees' reasonable control that could result in adverse impacts to fishery resources or other beneficial uses, the Deputy Director may take remedial action to address the exceedances (e.g., requiring the Licensees to file a plan identifying any feasible measures that the Licensees may undertake, require the Licensees to file modifications to license(s) requirements, etc.).

The Licensees shall implement the Dissolved Oxygen Management Plan upon receipt of Deputy Director and other required approvals, in accordance with the schedule and requirements specified therein. The Licensees shall file with FERC the Deputy Director-approved Dissolved Oxygen Management Plan, and any approved amendments thereto.

8.B Mercury Monitoring and Management Plan

No later than one year following license issuance, the Licensees shall submit a Mercury Monitoring and Management Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Licensees shall develop the Mercury Monitoring and Management Plan consistent with the State Water Board's May 2, 2012 *Part 2 Of The Water Quality Control Plan For Inland Surface Waters, Enclosed Bays, And Estuaries Of California—Tribal And Subsistence Fishing Beneficial Uses And Mercury Provisions* and any amendments thereto, and in consultation with the California Department of Public Health, Office of Environmental Health Hazard Assessment, State Water Board, and Central Valley Regional Water Board staff. At a minimum, the Mercury Monitoring and Management Plan shall include:

- A statement of the goals and objectives for the plan;
- A description of proposed monitoring protocols and locations (within the reservoirs and river), including aqueous methylmercury and inorganic mercury, fish tissue mercury, sediment mercury, and other ancillary parameters that affect mercury cycling (e.g., chlorophyll-a, dissolved organic carbon, and redox-potential);
- A comprehensive description of procedures, including coordination with the California Department of Public Health and Office of Environmental Health Hazard Assessment to develop notification procedures that will be implemented to inform the public if hazardous levels of mercury are found in fish tissue;
- An evaluation of risks to piscivorous wildlife;
- A detailed description of reporting that will be implemented, including schedule;

- Proposed reservoir operations and fisheries adaptive management to reduce methylmercury pollution (e.g., bioaccumulation, methylation, and risks to piscivorous wildlife and human fish consumers);
- A plan for corrective measures and a timetable for implementation, if data indicate that the Projects may be increasing bioavailable mercury concentrations and/or adversely affecting water quality; and
- A summary of any comments received in development of the plan and how the comments were addressed.

The Licensees shall implement the Mercury Monitoring and Management Plan upon receipt of Deputy Director and other required approvals, in accordance with the schedule and requirements specified therein. The Licensees shall file with FERC the Deputy Director-approved Mercury Monitoring and Management Plan, and any approved amendments thereto.

8.C Other Constituents Monitoring and Management Plan

No later than one year following license issuance, the Licensees shall submit an Other Constituents Monitoring and Management Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Other Constituents Monitoring and Management Plan shall be developed in coordination with the Tuolumne River Watershed Group (Condition 6) and the Central Valley Regional Water Board. At a minimum, the Other Constituents Monitoring and Management Plan shall include:

- A statement of goals and objectives for the plan;
- A description of proposed monitoring and associated protocols, including monitoring locations, frequency (e.g., continuous), equipment to be used, and the quality assurance project plan;
- A comprehensive description of the Projects' impact on concentrations of constituents that will be monitored per the plan (see next bullet) in New Don Pedro Reservoir, La Grange Reservoir, and the lower Tuolumne River. This description shall also identify the magnitude of the Projects' impact in relationship to other factors influencing the constituents in the Tuolumne River;
- A description of water quality parameters to be monitored that include, but are not limited to those identified in the 303(d) listing: water temperature (covered in Condition 3), mercury (covered in Condition 8.B), chlorpyrifos, diazinon, Group A pesticides (aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, hexachlorocyclohexanes [including lindane], endosulfan, and toxaphene), and toxicity;
- Pesticides used for Projects' operations and maintenance;
- A description of water quality parameters to be monitored in the Tuolumne River as part of the *Waste Discharge Requirements General Order For Growers Within The Eastern San Joaquin River Watershed That Are Members Of The Third-*

Party Group (Central Valley Regional Water Board Order R5-2012-0116-09), including any amendments or successor orders;

- Current water quality objectives for the parameters and monitoring requirements provided in the SR/SJR Basin Plan, Bay-Delta Plan, or amendments thereto;
- Description of options to reduce 303(d) listed pollutant levels, and a plan for corrective measures and a timetable for implementation, if data indicate that the Projects may be adversely affecting water quality;
- A summary of any comments received in development of the plan and how the comments were addressed; and
- A detailed reporting schedule that includes summarizing, evaluating, and reporting on the data.

The Licensees shall implement the Other Constituents Monitoring and Management Plan upon receipt of Deputy Director and other required approvals, in accordance with the schedule and requirements specified therein. If the water quality monitoring assessment determines that the Projects' operations have de minimis impacts to the constituents described above, then the Licensees may propose reduced monitoring for review and approval by the Deputy Director. The Licensees shall file with FERC the Deputy Director-approved Other Constituents Monitoring and Management Plan, and any approved amendments thereto.

CONDITION 9. Large Woody Material Management

No later than one year following license issuance, the Licensees shall submit a Large Woody Material Management Plan (LWMMP) to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The LWMMP shall be designed to provide additional native resident and migratory fish rearing habitat in the Tuolumne River by creating additional cover, edge, and channel complexity through the addition of structural habitat, including large woody debris, boulders, and other objects. The LWMMP shall be developed in consultation with BLM, USFWS, NMFS, CDFW, and State Water Board staff. The Licensees shall consider guidance from the *National Large Wood Manual* (Reclamation and ERDC, 2016) and *Integrating Recreational Boating Considerations into Stream Channel Modification & Design Projects* (Colburn, 2012) in developing the LWMMP.

At a minimum, the LWMMP shall include:

- Specific objectives, including a description of: (a) what constitutes large woody material (i.e., size criteria) that will be captured, removed, stored, and placed as part of this condition; (b) how other woody material will be handled or disposed of as part of the Projects' operations; (c) what other materials (e.g., boulders) will be used;
- Proposed monitoring to assess the effectiveness of the plan (e.g., mobilization and distribution of large woody material and other approved materials);
- Detailed description of the methods, locations, volume, and frequency of large woody material capture, removal, storage, and placement for large woody

material in New Don Pedro Reservoir, including options for moving the large woody material collected in New Don Pedro Reservoir and depositing it downstream of La Grange Dam;

- Identification of suitable locations in the Tuolumne River downstream of La Grange Dam where large woody material can be placed and be passively mobilized by two to five-year high flow events, or where it would be appropriate to anchor large woody material;
- A monitoring and reporting program that describes how the Licensees will evaluate and report on the performance of management efforts related to large woody material and other approved materials. The monitoring and reporting program shall include the criteria that will be used to evaluate the performance of the management measures. The Licensees shall propose updates to the LWMMP based on the monitoring results. Reports shall be submitted to the Deputy Director, BLM, CDFW, NMFS, and USFWS;
- An adaptive management program that describes how the Licensees plan to adjust large woody material management and monitoring methods based on evaluation of information and monitoring resulting from implementation of the LWMPP; and
- Documentation of consultation with BLM, USFWS, NMFS, CDFW, and State Water Board staff, including comments and recommendations made in connection with the LWMMP, and a description of how the LWMMP incorporates or addresses the comments and recommendations.

In addition to the general minimum requirements above, the Licensees shall, in consultation with the agencies listed above, evaluate the following elements for inclusion in the LWMMP:

- A strategy for safe and expeditious wood removal from New Don Pedro Reservoir when the volume exceeds 5,000 cubic yards of woody material entering New Don Pedro in any one year;
- The amount and location of large woody material placement and a schedule for placement in consultation with BLM, USFWS, NMFS, CDFW, and State Water Board staff. Identification of the amount, location, and timing of large woody material; and
- CDFW and NMFS recommendations (CDFW, 2018; NMFS, 2018) and information provided in the Final EIS, and other available, relevant scientific and technical information. CDFW and NMFS recommendations (CDFW, 2018; NMFS, 2018) and information provided in the FERC Final EIS, and other available, relevant scientific and technical information.

The Licensees shall report on large woody material management for the previous year at the Annual Review Meeting (Condition 7).

The Licensees shall file with FERC the Deputy Director-approved LWMMP, and any approved amendments thereto. The Licensees shall implement the LWMMP upon

receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 10. Erosion and Sediment Management

No later than one year following license issuance, the Licensees shall submit an Erosion and Sediment Control Management Plan (Erosion and Sediment Plan) to the Deputy Director for review and consideration for approval. The Licensees may require modifications as part of any approval. The Erosion and Sediment Plan shall be developed in consultation with BLM, CDFW, Central Valley Regional Water Board, and State Water Board staff. The primary goal of the Erosion and Sediment Plan shall be to address and control Projects-related erosion and sedimentation during the term of the new license(s) and any extensions.

At a minimum, the Erosion and Sediment Plan shall include recommendations (referred to as Measure Number 4, items 1 and 2) provided by CDFW (CDFW, 2018) and the following items:

- The goal, purpose, and scope of the plan;
- Periodic inventories of the entire Projects area to identify and assess sites with erosion and sedimentation issues. The plan shall identify a timeline for the inventories;
- Criteria for ranking and treating erosion sites identified as part of the inventories, including a risk rating and hazard assessment for scheduling erosion treatment measures and monitoring at each erosion site;
- Protocols for monitoring completed erosion control treatment measures for a period of up to three years after treatment to determine the effectiveness of erosion control measures and whether further erosion control measures are necessary;
- Process and timeline for submittal of the periodic inventories, including associated information and monitoring of existing sites, to the Deputy Director. If the inventory indicates existing or new sites with Project-related erosion and sedimentation issues, the Licensees shall prepare an amendment to the plan for Deputy Director review and consideration for approval. The plan amendment shall be prepared in consultation with BLM, CDFW, Central Valley Regional Water Board, and State Water Board staff and submitted to the Deputy Director within six months of submitting the periodic inventory to the Deputy Director. The plan amendment shall include: (a) a ranking of the sites based on the criteria used for ranking and treating erosion sites; (b) a timeline for addressing sites with erosion and sedimentation issues; (c) measures/treatments that will be implemented to address erosion and sedimentation issues at each site; (d) measures that will be implemented to protect water quality and beneficial uses; (e) monitoring of sites to evaluate effectiveness of implemented measures/treatments; and (f) reporting;
- Site-specific temporary erosion control measures that will be implemented during construction-related activities;

- A monitoring and reporting program that describes how the Licensees will evaluate and report on the performance of erosion and sedimentation control efforts. The program shall include the criteria that will be used to evaluate the performance of erosion and sedimentation control management measures and propose changes to the measures/treatments;
- Protocols for emergency erosion and sediment control that will be implemented upon notice to the Deputy Director, outside of the timeline and process outlined above; and
- Documentation of consultation with BLM, CDFW, Central Valley Regional Water Board, and State Water Board staff, comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Licensees shall file with FERC the Deputy Director-approved Erosion and Sediment Plan, and any approved amendments thereto. The Licensees shall implement the Erosion and Sediment Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 11. Gravel Augmentation and Management

No later than one year following license issuance, the Licensees shall submit a Gravel Augmentation Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Gravel Augmentation Plan shall be developed in consultation with BLM, CDFW, USFWS, NMFS, and State Water Board staff. A primary goal of the Gravel Augmentation Plan shall be to develop specifications for gravel augmentation in the lower Tuolumne River, including the addition of coarse gravel to fill bedload traps/special run pools and provide spawning gravel downstream of La Grange Dam. The Gravel Augmentation Plan should be designed with consideration of sediment budgets that exceed the river's ability to transport, so that over time the system becomes less incised.

At a minimum, the Gravel Augmentation Plan shall include:

- The purpose, goals, and scope of the plan, including the provisions noted in the Additional Gravel Augmentation Details section below;
- Identification of coarse gravel and spawning gravel sizes to be used for gravel augmentation;
- Identification of gravel harvesting sources and storage sites;
- Method for removal, sorting, and cleaning the source gravel, as well as disposal of any byproducts associated with the process;
- Identification of locations and methods for gravel introduction/placement, and any facilities or improvements necessary to access the Tuolumne River and place gravel;
- Coordination with activities under the Riparian, Spawning, and Floodplain Restoration Plan (Condition 12);

- The priorities for short-term gravel transfusions of coarse gravel (to fill sediment traps/special run pools) and long-term annual spawning gravel augmentations as found in the Tuolumne River Coarse Sediment Management Plan (McBain and Trush 2004);
- Measures that Licensees will take to reasonably protect water quality, including fish and wildlife beneficial uses, during gravel augmentation;
- A monitoring and reporting program that describes how the Licensees will evaluate and report on the performance of gravel augmentation efforts. The program shall include the criteria that will be used to evaluate the performance of gravel augmentation management measures, including a schedule and methods for monitoring mobilization of gravel dispersal. Monitoring shall include an evaluation of the effectiveness of gravel augmentation activities at providing spawning substrate, including identification of whether the gravels are being used, the quality of spawning habitat being created, and success in meeting the plan's goals. The Licensees shall propose any updates to the plan based on the monitoring results. Reports shall be submitted to the Deputy Director, BLM, CDFW, NMFS, and USFWS;
- An adaptive management program that describes how the Licensees plan to adjust gravel placement and monitoring methods based on evaluation of information and monitoring resulting from plan implementation; and
- Documentation of consultation with BLM, CDFW, USFWS, NMFS, and State Water Board staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

Additional Gravel Augmentation Details. The Licensees shall implement coarse gravel (non-spawning and spawning) enhancement in the following reaches:

- Spawning Reach (RM 53.0 – RM 47.5) La Grange Dam to Basso Bridge;
- Dredger Reach (RM 47.5 – RM 39.5) Basso Bridge to Roberts Ferry;
- Mining Reach (RM 39.5 – RM 36.3) Roberts Ferry to Santa Fe Bridge; and
- Lower Tuolumne (RM 36.3 – RM 0).

The Licensees shall place coarse gravel in the four reaches of the lower Tuolumne River identified above. The exact size distribution of gravels and location of gravel placement in the four reaches identified above shall be determined in the Gravel Augmentation Plan and through annual consultation with the BLM, CDFW, USFWS, NMFS, and State Water Board staff. The Gravel Augmentation Plan shall include the gravel augmentation as follows:

- 564,000 cubic yards of coarse gravels within the first 15 years (approximately 37,600 cubic yards per year) following license(s) issuance to fill the bedload traps/special run pools; and

- 5,400 cubic yards per year of cleaned spawning sized gravel to create or restore spawning riffles and restore fluvial geomorphic processes starting five years after license(s) issuance.

The Deputy Director may require additional gravel augmentation based on monitoring results, as part of adaptive management implementation of the Gravel Augmentation Plan. The Licensees shall file with FERC the Deputy Director-approved Gravel Augmentation Plan, and any approved amendments thereto. The Licensees shall implement the Gravel Augmentation Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 12. Riparian, Spawning, and Floodplain Management

12.A Riparian, Spawning, and Floodplain Restoration Plan

No later than two years following license issuance, the Licensees shall submit a Riparian, Spawning, and Floodplain Restoration Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Riparian, Spawning, and Floodplain Restoration Plan shall be developed in consultation with the agencies in the Tuolumne River Anadromous Fish Committee (Condition 6), shall: (i) include habitat and biological goals for the restoration plan; (ii) be based on the expected water budget resulting from Conditions 1.B, 1.C, 1.D, and 3; and (iii) include a definition of high flow events.

The Riparian, Spawning, and Floodplain Restoration Plan shall identify the river reaches with the greatest need for riparian, spawning, and floodplain rearing habitat. Spawning restoration sites identified in the Gravel Augmentation Plan (Condition 11) shall be incorporated into the Riparian, Spawning, and Floodplain Restoration Plan if approved by the Tuolumne River Anadromous Fish Committee. Riparian habitat restoration sites may be identified in specific locations for temperature management or combined with floodplain restoration sites if approved by the Tuolumne River Anadromous Fish Committee. The Riparian, Spawning, and Floodplain Restoration Plan shall identify the target amount of floodplain rearing habitat to be developed for each reach, and potential locations for floodplain restoration projects, including locations for lowering existing floodplain elevations to activate at flow rates in the range of 700 to 1,300 cfs and in the range from 1,300 to 3,000 cfs. The Riparian, Spawning, and Floodplain Restoration Plan shall evaluate floodplain restoration locations for a minimum of 200 acres of constructed, restored floodplain rearing habitat and shall include a floodplain inundation analysis to identify locations for restoration projects that reduce elevations for flooding to flow rates of 700 to 3,000 cfs, a revegetation plan, and other relevant details.

The Licensees shall prioritize project sites that have the potential to produce the highest quality habitat at the optimal frequency and duration for supporting native fish species. Restoration project site selection shall prioritize floodplain areas with a higher river frontage to acreage ratio and projects that lower the existing floodplain elevation to

activate at lower flow levels. The Licensees shall also work in coordination with the Tuolumne River Anadromous Fish Committee to develop restoration project-specific plans including performance criteria. The Licensees may develop specific projects in conjunction with projects developed as part of the Gravel Augmentation Plan (Condition 11). Floodplain restoration sites may be used as sources of material for gravel augmentation and new floodplains may be created during the filling of special-run pools as recommended by CDFW in Measure 5 (CDFW, 2018).

No later than one year following license issuance, the Licensees shall, as part of submittal of the Riparian, Spawning, and Floodplain Restoration Plan, submit a screening level analysis of proposed locations for a minimum of 200 acres of constructed, restored, floodplain habitat throughout the lower Tuolumne River in reaches with the greatest needs and designed to activate at flows lower than existing overbank flow values (e.g., between 700 and 1,300). The screening level analysis shall include a determination of floodplain activation flows for each project and an evaluation of how flood/pulse flows may contribute to floodplain values and benefit fish and wildlife species. Restored habitats that activate at lower flows may be restored side channels with a mix of floodplain and instream habitat characteristics determined by flow rate. The screening level analysis shall be developed in consultation with the Tuolumne River Anadromous Fish Committee (Condition 6).

The Riparian, Spawning, and Floodplain Restoration Plan shall identify recommended restoration projects, implementation schedule for the restoration, identification of performance criteria for restored habitats, and implementation and effectiveness monitoring that will be performed for each individual restoration project. The recommended restoration projects shall incorporate relevant information from the Gravel Augmentation Plan (Condition 11) and restoration screening-level analysis.

The Licensees shall include with the plan copies of the comments, including recommendations, made in the course of consultation, and an explanation as to how the plan incorporates or addresses the comments and recommendations. The Licensees shall file with FERC the Deputy Director-approved Riparian, Spawning, and Floodplain Restoration Plan, and any approved amendments thereto.

12.B Floodplain Habitat Restoration

The Licensees shall implement the Riparian, Spawning, and Floodplain Restoration Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

The Licensees shall construct a minimum of 150 acres of 100 percent suitable floodplain rearing habitat that is designed to lower existing floodplain surface elevation in the first 10 years following Deputy Director approval of the Riparian, Spawning, and

Floodplain Restoration Plan (an average of 15 acres per year¹⁷). The Licensees shall construct an average of 15 acres of 100 percent suitable floodplain habitat every year thereafter unless the Licensees, in consultation with the Tuolumne River Anadromous Fish Committee, can demonstrate to the Deputy Director that available habitat and flows are meeting the narrative and numeric objectives and goals for the LSJR and Tuolumne River. Floodplain construction and restoration shall implement the Riparian, Spawning, and Floodplain Restoration Plan and primarily include floodplain restoration that activates at flows in the range of 700 – 1,300 cfs and 1,300 – 3,000 cfs. Additional floodplain restoration is required if monitoring and assessment show that floodplain restoration projects are not 100 percent suitable, are not meeting performance criteria, or if biological targets for salmon are not met (e.g., juvenile survival targets, Central Valley Protection Improvement Act doubling escapement, State Water Board approved biological goals for the Tuolumne River) due to lack of adequate rearing habitat quality or quantity.

No later than two years following license issuance, the Licensees shall complete the final design, perform pre-construction monitoring to support development of a Before-After-Control-Impact (BACI) analysis, and commence construction of the approved Riparian, Spawning, and Floodplain Restoration Plan.

The Licensees shall develop restoration project-level designs in consultation with the Tuolumne River Anadromous Fish Committee and identify performance metrics for habitat quantity and quality and biological targets (e.g., salmonid use, salmonid survival, presence/absence of warm water predator fish) for each restoration project.

12.C Riparian, Spawning, and Floodplain Restoration Monitoring and Assessment

Restoration Site-specific Monitoring. The Licensees shall develop a monitoring plan for each restoration site and shall be responsible for implementing the plan at each site. Monitoring designs for implementation and effectiveness assessment shall be identified in collaboration with the Tuolumne River Anadromous Fish Committee for each restoration project. Monitoring can be carried out by other organizations and/or member organizations of the Tuolumne River Anadromous Fish Committee and Tuolumne River Watershed Group. The Licensees shall be financially responsible for fulfillment of this requirement. As multiple restoration projects are completed, their individual monitoring plans shall be integrated so that monitoring activities, analysis, and synthesis are facilitated and to further the understanding of river wide recovery efforts. Such integration shall be reflected in the annual, five-year, and comprehensive reports described below. The Licensees shall include the following parameters in their

¹⁷ An averaging period of no greater than five years may be applied to the annual requirement for 15 acres of 100 percent suitable floodplain rearing habitat.

monitoring plans for immediate implementation following the completion of any individual floodplain restoration project:

- Floodplain Inundation: The Licensees shall monitor pre- and post-project floodplain inundation frequency, duration, depth, timing, velocity, and temperature;
- Fish Use: The Licensees shall monitor the pre- and post-project use of the restored project sites by fish, particularly juvenile salmonids; and
- Vegetation Survival: The Licensees shall monitor survival of planted riparian species at newly constructed restoration sites.

Implementation Monitoring. The Licensees shall summarize and provide the results of implementation monitoring in a report to the Deputy Director, CDFW, USFWS, and NMFS within 60 days of completion of the site-specific restoration implementation monitoring.

Effectiveness Monitoring. The Licensees shall conduct effectiveness monitoring to assess:

- Floodplain inundation and geomorphic processes at the restored/enhanced floodplain sites;
- Survivorship of planted riparian species, riparian canopy cover, and riparian species recruitment at the restored/enhanced floodplain sites;
- Presence and function of large woody material in the restored/enhanced floodplain sites;
- Terrestrial subsidies inputs from the restored/enhanced floodplain sites; and
- Juvenile salmonid use of restored/enhanced floodplain habitats and large woody material placement sites.

Post-construction effectiveness monitoring of restoration and enhancement sites shall commence no later than one year following full implementation at a given restoration site for a period of 10 years or until performance metrics have been achieved. If the effectiveness monitoring shows less effectiveness than the design values and performance metrics, the Licensees shall only be credited with the amount of restoration shown to be suitable habitat. The Licensees shall implement an adaptive management process to employ additional measures needed to achieve restoration objectives. The Licensees shall summarize and provide the results of effectiveness monitoring in a report to the Deputy Director, CDFW, USFWS, and NMFS within 60 days of completion of the site-specific restoration effectiveness monitoring.

Annual Monitoring. The Licensees shall annually collect data appropriate for evaluating the implementation and effectiveness of the Riparian, Spawning, and Floodplain Restoration Plan and the achievement of the plan objectives. The Licensees shall prepare an annual summary report describing monitoring and implementation activities completed pursuant to this condition, including floodplain reconnection and riparian planting that were completed during the previous year, and submit the report to the

agencies of the Tuolumne River Anadromous Fish Committee (Condition 6) for review and comment. The Licensees shall present the results of monitoring completed pursuant to this condition at the annual meeting (Condition 7).

Five-Year Evaluation. The Licensees, in consultation with the agencies of the Tuolumne River Anadromous Fish Committee (Condition 6), shall evaluate the Riparian, Spawning, and Floodplain Restoration Plan every five years after initial implementation and provide a comprehensive report that evaluates the effectiveness of the program over the previous five years and other efforts conducted under this condition. If any changes are recommended beyond the objectives approved by the Deputy Director, the Licensees shall submit recommendations in a revised plan to the Deputy Director for review and consideration for approval. The Licensees shall include with the revised plan, copies of the comments, including recommendations, made in the course of consultation with the agencies, and an explanation of how the plan incorporates or addresses the comments and recommendations.

Comprehensive Evaluation. The Licensees shall evaluate the need for additional habitat restoration to meet performance metrics and biological goals in consultation with the Tuolumne River Anadromous Fish Committee no later than 25 years following license issuance or completion of floodplain restoration projects if completed prior to 25 years after license issuance. The evaluation shall be submitted to the Deputy Director upon completion, no later than 26 years after license issuance. The Deputy Director may require additional floodplain restoration projects if needed to achieve biological goals or habitat goals.

CONDITION 13. Predator Suppression Plan

No later than one year following license issuance, the Licensees shall submit a Predator Suppression Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Licensees shall develop the Predator Suppression Plan in consultation with the agencies of the Tuolumne River Anadromous Fish Committee (Condition 6).

At a minimum, the Predator Suppression Plan shall include:

- The goals and objectives of the plan;
- An evaluation of the effects that predators have on native resident and migratory fish, including predator density in the Tuolumne River, alternative prey, juvenile residence time, refuge habitat availability, and impacts of predation on native resident and migratory fish survival rates;
- Identification of gravel pits, scour pools, ponds, weirs, diversion dams, submerged aquatic vegetation, and other structures or areas, that support significant number of non-native fish and predators that may currently reduce native resident and migratory fish survival;
- Actions the Licensees will implement to reduce predation and non-native fish effects and to improve native resident and migratory fish success. Action may

- include modification of structures and areas or other appropriate actions (e.g., predator removal);
- Coordination with actions required by other conditions of this certification (e.g., large woody material placement, floodplain habitat refuge for juvenile native resident and migratory fish, gravel augmentation, and temperature management) to maximize predator suppression and native resident and migratory fish survival;
 - A monitoring and reporting program that describes how the Licensees will evaluate and report on the performance of plan implementation. The program shall include the criteria that will be used to evaluate plan implementation and propose changes; and
 - Documentation of consultation with agencies, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Licensees shall file with FERC the Deputy Director-approved Predator Suppression Plan, and any approved amendments thereto. The Licensees shall implement the Predator Suppression Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 14. Aquatic Invasive Species Management Plan

No later than two years following license issuance, the Licensees shall submit an Aquatic Invasive Species Management Plan (Invasive Species Plan) to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Invasive Species Plan shall be developed in consultation with BLM, CDFW, USFWS, NMFS, and State Water Board staff. The Invasive Species Plan shall provide guidance to manage aquatic invasive species that occur or have the potential to occur in Projects-affected waters. The goals of the Invasive Species Plan are to: (1) identify and implement best management practices (BMPs) to minimize and prevent the introduction and spread of aquatic invasive species into and throughout Projects-affected waters; (2) provide education and outreach to ensure public awareness of the potential effects of aquatic invasive species throughout Projects-affected waters and actions needed to avoid or address them; (3) develop and implement monitoring programs to ensure early detection of aquatic invasive species; and (4) monitor the spread of established aquatic invasive species. At a minimum, the Invasive Species Plan shall include:

- The purpose of the plan;
- Identification of aquatic invasive species that occur or have the potential to occur in Projects-affected waters. For those that occur, include information on where the aquatic invasive species occur and its density;
- BMPs that will be implemented to manage aquatic invasive species;
- An education and outreach program that will be implemented to ensure public awareness and actions to avoid the introduction and spread of aquatic invasive species;

- A monitoring and reporting program that will be implemented to ensure early detection of new aquatic invasive species and monitor the spread or reduction of established aquatic invasive species. The monitoring program shall include the species that will be monitored for, monitoring protocols, frequency, and locations. The program shall describe how the Licensees will evaluate and report on the performance of aquatic invasive species management efforts. The program shall include the criteria that will be used to evaluate the performance of aquatic invasive species management measures. The reports shall include identification of changes associated with the presence of aquatic invasive species in Projects-affected waters and recommendations to address the presence. The Licensees shall propose any updates to the plan based on the monitoring results or other available information. Reports shall be submitted to BLM, CDFW, USFWS, NMFS, and the Deputy Director;
- An adaptive management program that describes how the Licensees plans to adjust aquatic invasive species monitoring methods based on evaluation of information and monitoring resulting from implementation of the plan; and
- Documentation of consultation with BLM, CDFW, USFWS, NMFS, and State Water Board staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Licensees shall file with FERC the Deputy Director-approved Invasive Species Plan, and any approved amendments thereto. The Licensees shall implement the Invasive Species Plan upon receipt of Deputy Director approval and any other required approvals, in accordance with the schedule and requirements specified therein. The Deputy Director may direct the Licensees to implement additional measures to address aquatic invasive species in Projects-affected waters.

CONDITION 15. Recreation Facilities Management

No later than two years following license issuance, the Licensees shall submit a Recreation Facilities Management Plan (Recreation Plan) to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Recreation Plan shall be developed in consultation with BLM and State Water Board staff.

At a minimum, the Recreation Plan shall include:

- A description of operations and maintenance activities associated with the Projects' recreation facilities that have the potential to impact water quality, and measures that will be implemented to address any impacts;
- Identification of recreation use surveys that will be conducted as part of the Projects and submittal of the associated results to State Water Board staff. If results of the surveys indicate an increase in recreation use, the Licensees shall evaluate the potential effects to determine whether modifications to Projects' facilities are needed to protect water quality and beneficial uses and provide the

Deputy Director with the analysis and any associated recommendations for review and consideration of approval;

- A list, description, and schedule for modifications to existing and construction of new recreation facilities associated with the Projects. For each facility modification or construction, the Licensees shall prepare and implement, once approved by the Deputy Director, a Water Quality Monitoring and Protection Plan (Condition 19) that outlines measures and monitoring the Licensees will implement to protect water quality, beneficial uses, and aquatic biological resources;
- A reporting program to document, summarize, and analyze completion of recreation facility construction or modification and associated monitoring results; and
- Documentation of consultation with BLM and State Water Board staff, comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Licensees shall file the Deputy Director-approved Recreation Plan, and any required modifications or amendments thereto, with FERC. The Licensees shall implement the Recreation Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 16. Road Management

No later than two years following license issuance, the Licensees shall file a Road Management Plan with the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Road Management Plan shall be developed in consultation with Central Valley Regional Water Board and State Water Board staff. The Road Management Plan shall describe the maintenance and construction of Projects' roads in a manner that is protective of water quality.

At a minimum, the Road Management Plan shall include:

- An inventory and map of all roads associated with the Projects, including locations of drainage structures, streams, and surface waterbodies;
- An assessment of Projects' roads to determine if any drainage structures or road segments are impacting or have the potential to impact water quality;
- Proposed measures and an implementation schedule to rehabilitate existing damage and minimize erosion from Projects' roads;

- Proposed measures designed to improve drainage that are consistent with the most current BLM construction and maintenance guidance¹⁸ or Caltrans' Highway Design Manual¹⁹
- A process for the Licensees to propose updates or modifications to the plan for activities unknown at the time of plan approval, such as new road construction or decommissioning;
- A schedule and plan for inspection and maintenance of Projects' roads throughout the term of the license(s) and any extensions; and
- Documentation of consultation with Central Valley Regional Water Board and State Water Board staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Licensees shall file with FERC the Deputy Director-approved Road Management Plan, and any approved amendments thereto. The Licensees shall implement the Road Management Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 17. Biological Resources Management

No later than one year following license issuance, the Licensees shall submit a Biological Monitoring, Management, and Science Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Licensees shall develop the Biological Monitoring, Management, and Science Plan in consultation with the Tuolumne River Anadromous Fish Committee, Tuolumne River Watershed Group, and the Lower San Joaquin River Watershed Group (Condition 6).

As part of implementing the Biological Monitoring, Management, and Science Plan, the Licensees shall monitor salmonids, fish communities, and aquatic ecology in the lower Tuolumne River, lower San Joaquin River, and at the mouth of the Sacramento-San Joaquin Delta in order to quantify the effects of the Projects on fish and wildlife in the watershed. Monitoring salmonid populations will assist in developing data for improving life-cycle models and scientific tools to better manage Tuolumne River salmonid populations. In consultation with the Tuolumne River Anadromous Fish Committee and the Tuolumne River Watershed Group, and with the Deputy Director's approval, the Licensees may participate in a regional monitoring program or other collective monitoring effort in lieu of some or all of the individual monitoring or data collection

¹⁸ BLM's construction and maintenance for roads can be found at: <https://www.blm.gov/sites/blm.gov/files/Chapter%204%20-%20Construction%20and%20Maintenance.pdf>. Last accessed: November 23, 2020.

¹⁹ Caltrans Highway Design Manual – Hydraulics and Stormwater Related Chapters. <https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm>. Last accessed: November 23, 2020.

provisions required by this condition. Such programs and efforts may include partnerships with the Interagency Ecological Program Bay-Delta water quality and biological monitoring efforts. Participation in a regional monitoring program or other collective monitoring effort shall consist of providing funds or in-kind services to the existing program or effort equivalent to the cost of conducting separate monitoring or data collection and assessment efforts.

At a minimum, the Biological Monitoring, Management, and Science Plan shall include:

1. Specific management questions that each biological monitoring effort is designed to answer;
2. Identification of biological and ecological performance targets to assess progress towards improving and sustaining healthier salmon populations, including biological goals adopted by the State Water Board, and other ecological metrics;
3. Science Program. Identify scientific investigations and/or special studies that need to be completed to achieve more effective and efficient attainment of biological goals and/or performance targets;
4. Adaptive management that describes how the Licensees plan to adjust management actions based on evaluation of information and monitoring resulting from implementation of the plan;
5. Specific years that monitoring will occur throughout the term of the license(s) and any extensions;
6. Standardized sampling and data protocols with consideration given to methods used for downstream monitoring associated with the Sacramento-San Joaquin Delta;
7. Salmon Monitoring Plan – see details below;
8. Ecological Stream Monitoring Plan -- native resident and migratory fish, benthic macroinvertebrates (BMI), and amphibians in the lower Tuolumne River (La Grange Dam to the confluence with the LSJR) over the term of the license(s) and any extensions;
 - Fish community composition monitoring and assessment in coordination with habitat improvement actions such as large woody debris (Condition 9), gravel augmentation (Condition 11), riparian and floodplain improvement (Condition 12), and predator suppression (Condition 13) to identify fish species in multiple locations spanning the lower Tuolumne River;
 - BMI monitoring using the Surface Water Ambient Monitoring Program Protocols²⁰ or its successor program, or an alternative methodology approved by the Deputy Director. The protocols shall include population heterogeneity, composition, and trends;
9. Monitoring and habitat protection measures for fish, amphibian, and reptile species that are listed as threatened or endangered under the California

²⁰ State Water Board. 2017D. Surface Water Ambient Monitoring Program: Quality Assurance Program Plan.

Endangered Species Act (ESA) and/or federal ESA, or Species of Special Concern designated by CDFW. These species include, but are not limited to: Central Valley steelhead, Central Valley spring-run Chinook salmon, Central Valley fall and late fall-run Chinook salmon, North American green sturgeon, Western Pond Turtle, Limestone Salamander, California red-legged Frog, Foothill yellow-legged Frog, and California Tiger Salamander. (Note monitoring for fish may be covered by other portions of the plan.);

10. Monitoring and habitat protection measures for bald eagle, including focused surveys to identify eagle nests within one mile of disturbance areas related to the Projects. The early nesting season survey shall occur at a time when eagles are most likely to be found at the nest sites, and the second survey shall occur later in the season and prior to the fledglings leaving the nest to confirm nesting activity. All observations shall be reported to CDFW using the California Bald Eagle Nesting Territory Survey Form;
11. Monitoring and habitat protection measures for Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp;
12. Consideration of Projects' impacts on species and their habitats;
13. Documentation of consultation, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations; and
14. Funding strategy, budget, and funding reporting process.

Salmon Monitoring Plan. A Salmon Monitoring Plan shall be included in the Biological Monitoring, Management, and Science Plan consistent with CDFW recommendations (CDFW, 2018). At a minimum, the Salmon Monitoring Plan shall include the following:

1. Measurement of fall-run Chinook salmon spawning and escapement surveys:
 - Annual carcass surveys to estimate spawning and escapement from October 1 through December 1, and continuing until two weeks after surveyors find less than five new fish-carcasses in a week. The stream-reach locations for each carcass shall be recorded;
 - Consistent with the modified Cormack-Jolly-Seber (CJS) methodology described in the CDFW 2012 *Central Valley Chinook Salmon In-River Escapement Monitoring Plan* (Bergman et al. 2012);
 - Annual snorkel surveys to estimate adult distribution, abundance, and age; and
 - Annual pre-spawning mortality survey.
2. Morphometric measurements of returning salmon adults shall include:
 - 100 percent of the Chinook salmon carcasses downstream of the Fish Counting Weir at RM 24.5, surveying to at least RM 23.5;
 - The first 500 Chinook salmon carcasses found upstream of the Fish Counting Weir; and
 - An additional five percent (5%) of the Chinook salmon carcasses beyond the first 500 Chinook salmon carcasses upstream of the fishing weir, but not more than 1,000 in given year:

- Scale and otolith collection, length, sex, coded-wire-tag, and fecundity data (for estimating pre-spawn mortality).
3. Measure and estimate juvenile production by operating two rotary screw traps: one at RM 5.3 (Grayson RST); and one at RM 29.8 (Waterford RST). For fall-run Chinook salmon, operation of the traps shall occur annually from January 1 through June 15. The Licensees shall ensure:
 - The rotary screw traps are maintained in working order and positioned to provide adequate trap capture efficiencies at all flows;
 - Sufficient capture efficiency tests are conducted at all flows with all fish sizes;
 - Measurement of fork length of juveniles to track life-history diversity properties of brood years;
 - Development of methods to estimate expanded passage value for juvenile production estimates; and
 - Identification of all fish species that are sampled for information regarding fish community composition.
 4. Operation and maintenance of a seasonal counting weir at RM 24.5 to estimate CV Chinook salmon and CCV steelhead escapement and provide data on the percentage of females and migration timing.
 5. Snorkel surveys, using standard survey protocols, prior to each large woody material placement action, within the area of large woody material placement at the 10 meters upstream and downstream of the placement. Two snorkel surveys should occur in the placement area following large woody placement: the first during the second week following placement; and the second prior to spring flows returning to minimum instream flows in the calendar year following large woody material placement.
 6. Monitoring that will support assessment of the fisheries with respect to State Water Board approved biological goals for the LSJR and fishery performance metrics (e.g., total abundance, density, age composition, spatial distribution, and seasonal survival).

The Licensees shall file with FERC the Deputy Director-approved Biological Monitoring, Management, and Science Plan, and any approved amendments thereto. The Licensees shall implement the Biological Monitoring, Management, and Science Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 18. Monitoring, Assessment, Reporting, and Special Studies

18.A Monitoring, Assessment, and Science Program

No later than two years following license issuance, the Licensees shall submit a comprehensive Tuolumne River monitoring, assessment, reporting, and special studies plan (Tuolumne River Monitoring, Assessment, and Science Plan) to the Deputy Director for review and consideration for approval. The Deputy Director may require

modifications as part of any approval. The Deputy Director also may direct the Licensees to implement measures to address impacts associated with the Projects. The Tuolumne River Monitoring, Assessment, and Science Plan and performance of the required monitoring may serve as the Tuolumne River portion of the San Joaquin River Monitoring and Evaluation Program (SJRMEP).

Development of the Tuolumne River Monitoring, Assessment, and Science Plan shall build on the monitoring and assessment framework and principles outlined in the California Wetland and Riparian Area Monitoring Plan²¹ (WRAMP) and the USEPA tiered monitoring approach.²² The Tuolumne River Monitoring, Assessment, and Science Plan shall consolidate all monitoring actions required in the conditions of this certification that include monitoring necessary to assess compliance with the flow and water quality requirements in this certification, inform adaptive management decisions, and assess progress toward meeting biological goals.²³ The Tuolumne River Monitoring, Assessment, and Science Plan shall be developed in consultation with the agencies in the Tuolumne River Watershed Group and the Lower San Joaquin River Watershed Group (Condition 6).

Development and implementation of the Tuolumne River Monitoring, Assessment, and Science Plan shall be coordinated with monitoring programs in the LSJR watershed and Bay-Delta including, but not limited to: CDFW fish monitoring efforts; the Interagency Ecological Program; Reclamation monitoring for the CVP; DWR monitoring for the SWP; USFWS Anadromous Fish Restoration Program; FERC licensing proceedings for the Tuolumne River; San Joaquin River Restoration Program; and regional monitoring programs, such as the Irrigated Lands Regulatory Program East San Joaquin Water Quality Coalition, Delta Regional Monitoring Program, and San Francisco Bay Regional Monitoring Program.

²¹ WRAMP is designed to support monitoring and assessment of wetlands and streams, including projects, in a watershed or landscape context. Additional information is available on the Elements of WRAMP webpage, which is available online at https://mywaterquality.ca.gov/monitoring_council/wetland_workgroup/wramp/ (Last accessed: November 23, 2020)

²² <https://www.epa.gov/wetlands/wetlands-monitoring-and-assessment> (Last accessed: November 23, 2020)

²³ The Bay-Delta Plan requires development biological goals for the LSJR tributaries to assess progress towards achieving the narrative LSJR flow objective. **Draft Biological Goals** were released in 2019 for public comment and currently under consideration by the State Water Board pursuant to the Bay-Delta Plan. https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/biological_goals/draft_biological_goals.pdf (Last accessed November 23, 2020).

At a minimum, the Tuolumne River Monitoring, Assessment, and Science Plan shall include²⁴:

- The purpose of the plan and specific management questions the monitoring program is designed to address;
- Compliance and Implementation Monitoring. Identify the locations and instruments to measure flow and water quality properties (e.g., dissolved oxygen and temperature) needed to demonstrate compliance with flow and water quality requirements in this certification. Identify all monitoring requirements in the conditions of this certification and include them in the plan. See additional details in Condition 1.E for flow compliance monitoring, Condition 3 for temperature monitoring, Condition 8.A for dissolved oxygen monitoring, Condition 8.B for mercury monitoring, and Condition 8.C for other constituents monitoring;
- Biological (Effectiveness) Monitoring. Identify fish, BMI, and amphibian monitoring the Licensees will conduct in Projects-affected reaches over the term of the license(s) and any extensions (see additional details in Condition 17);
- Other Constituents Monitoring. Identify water quality parameters and associated monitoring the Licensees will conduct in Projects-affected reaches over the term of the license(s) and any extensions. See additional details in Condition 8;
- Non-Flow Actions. Incorporate compliance and adaptive management monitoring associated with non-flow restoration actions such as gravel augmentation (Condition 11), floodplain restoration (Condition 12), large-woody material management (Condition 9), predator suppression (Condition 13) and other non-flow restoration actions as they are implemented. Monitoring designs for non-flow actions should be based on principles outlined in the WRAMP and the USEPA tiered monitoring approach, or updated approaches approved by the Deputy Director;
- Assessment. Identify a schedule for assessing monitoring data and providing data and assessments to the Tuolumne River Watershed Group to inform real-time adaptive management decisions and to complete reporting requirements in Condition 18.B and Condition 18.C. Assessment of monitoring data shall provide: the compliance status for flow and water quality objectives required in this certification; evaluation of biological and ecological monitoring data, and tracking progress toward achieving biological goals; and updated responses to management questions. Assessments shall include identification of any impacts to biological resources and recommendations to address such impacts;

²⁴ To the extent information is provided in another monitoring plan required by this certification that has been approved by the Deputy Director, the Licensees shall integrate the approved monitoring plan (e.g., temperature monitoring, biological monitoring) into the Tuolumne River Monitoring, Assessment, and Science Plan. References to certification conditions have been provided to assist the Licensees in determining when such instances may occur.

- Science Program. Identify scientific investigations that need to be completed to achieve more effective and efficient attainment of flow and water quality requirements and biological goals (Condition 17); and
- Governance and Administration. The Tuolumne River Monitoring, Assessment, and Science Plan shall also include:
 - A governance charter for decision making processes in consultation with the Tuolumne River Watershed Group (Condition 6);
 - Identification of organizations involved in collecting, assessing, and reporting monitoring data and their roles. The Licensees shall document consultation with entities identified in monitoring, such as the Tuolumne River Watershed Group (Condition 6);
 - Data Management. Identify protocols for collecting, storing, assessing, summarizing, and making monitoring data and assessments and results from special studies available to the public;
 - Annual Review. Identify an annual review cycle to determine the need for modifications and a process for proposing modifications to the plan once approved;
 - External Review. Identify and implement a schedule for regularly occurring external reviews (e.g., every five years) of the plan and its implementation; and
 - Long-term funding strategy. Identify funding sources and allocate resources to monitoring, data management, assessment, reporting, special studies, and external reviews.

Documentation of consultation with the Tuolumne River Watershed Group and Lower San Joaquin River Watershed Group (Condition 6) and existing monitoring programs shall be provided to the Deputy Director as part of the request for review and consideration for approval of the Tuolumne River Monitoring, Assessment, and Science Plan. Documentation shall include any comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

There may be a need to modify the approved Tuolumne River Monitoring, Assessment, and Science Plan to accommodate changing circumstances such as technological improvements in monitoring equipment and the initiation and completion of non-flow restoration actions or special studies. Proposed modifications shall be based on knowledge gained through monitoring data, assessment results, or results of special studies. Proposed modifications shall be developed through the annual review process in consultation with the Tuolumne River Watershed Group (Condition 6). The Licensees shall submit any proposed modifications to the Tuolumne River Monitoring, Assessment, and Science Plan to the Deputy Director for review and consideration for approval.

The Licensees shall file with FERC the Deputy Director-approved Tuolumne River Monitoring, Assessment, and Science Plan, and any approved amendments thereto.

The Licensees shall implement the Tuolumne River Monitoring, Assessment, and Science Plan and any required measures upon receipt of approval of the Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

18. B Annual Summary Reports

By December 31 of each year, the Licensees shall submit an annual summary report to the Deputy Director that summarizes the Licensees' operations and other activities for the prior water year. The annual summary report shall be used to inform future years' operations and other activities. The annual summary report shall describe implementation of flows, including any flow shifting done pursuant to the annual adaptive operations plan or a voluntary agreement, monitoring and special studies activities, and implementation of other measures to protect fish and wildlife during the previous water year, including actions performed by other entities identified in the Bay-Delta Plan's program of implementation. The annual summary report shall also identify any deviations from the annual adaptive operations plan and describe future special studies planned for the water year. The Licensees shall ensure that the annual report is available for review and discussion at the Annual Review Meeting (Condition 7).

18.C Comprehensive Reports

Every three to five years following implementation of this certification (i.e., beginning no sooner than three years, and no later than five years following issuance of the license(s)), the Licensees shall prepare and submit a comprehensive report to the State Water Board. The comprehensive report shall be prepared to review progress toward meeting the biological goals and identify any recommended changes to the implementation of the LSJR flow objectives.

The comprehensive report and any recommendations shall be peer-reviewed by an appropriate independent science panel, which will make its own conclusions and recommendations. In order to leverage expertise and limited resources (financial and otherwise), the Licensees are encouraged to work collaboratively in one or more groups and in consultation with the Tuolumne River Watershed Group and the Lower San Joaquin River Watershed Group (Condition 6).

CONDITION 19. Construction and Maintenance

When applicable and for activities not covered by other conditions of this certification, the Licensees shall comply with the State Water Board's *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit), and amendments thereto. For any construction and maintenance activities with the potential to impact water quality or beneficial uses that are not subject to the Construction General Permit, the Licensees shall prepare and implement site-specific Water Quality Monitoring and Protection Plans (WQMP Plans) for Deputy

Director approval. WQMP Plans must demonstrate compliance with sediment and turbidity water quality objectives in the SR/SJR Basin Plan.

The Licensees shall submit the WQMP Plans to the Deputy Director for review and consideration for approval at least 60 days prior to the desired start date of the applicable construction or maintenance activity. The Deputy Director may require modifications as part of any approval. The objective of the WQMP Plans shall be to identify and implement control measures for construction, maintenance, or other activities with the potential to cause erosion, stream sedimentation, fugitive dust, soil mass movement, release of hazardous materials, or other water quality impairment.

The WQMP Plans shall be based on actual site geologic, soil, and groundwater conditions, and at a minimum shall include:

- Description of site conditions and the proposed activity;
- Detailed descriptions, design drawings, and specific topographic locations of all control measures in relation to the proposed activity, which may include:
 - Measures to divert runoff away from disturbed land surfaces;
 - Measures to collect and filter runoff from disturbed land surfaces; and
 - Measures to dissipate energy and prevent erosion;
- Revegetation measures for disturbed areas, which shall include use of native plants and locally sourced plants and seeds; and
- A monitoring, maintenance, and reporting schedule.

The Licensees shall file with FERC the Deputy Director approved WQMP Plans, and any approved amendments thereto. The Licensees shall implement the WQMP Plans upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 20. Reintroduction of Anadromous Fish

The State Water Board reserves authority for the Executive Director to modify or add conditions to this certification if State Water Board staff determine that it is reasonably foreseeable that state or federally listed anadromous fish species will be reintroduced into Projects-affected streams to ensure adequate protection of SR/SJR Basin Plan and Bay-Delta Plan objectives and beneficial uses. The State Water Board also reserves the authority for the Executive Director to require the Licensees to develop plans and conduct studies if it is reasonably foreseeable that listed anadromous fish species will be reintroduced into Projects-affected areas. Such plans and studies shall be designed in consultation with USFWS, NMFS, CDFW, and State Water Board staff, to develop fish passage, flows, or other measures, as well as determine appropriate modifications to the certification to minimize potential impacts and protect water quality and beneficial uses. Introduction of anadromous fish may require reevaluation of the Projects' facilities, flow regimes, fish stocking plans, availability of large woody material, gravel augmentation, and access to Projects-affected tributaries.

CONDITIONS 21 – 45

CONDITION 21. The Licensees shall ensure no net loss of wetland or riparian habitat functions and is responsible for its own compliance with the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (State Water Board, 2019A) and the *California Wetlands Conservation Policy* (Governor's Executive Order W-59-93). Proposed wetland mitigation ratios shall be submitted to the Deputy Director for approval.

CONDITION 22. Any plan developed as a condition of this certification will require review and consideration for approval by the Deputy Director, unless otherwise specified. The State Water Board's approval authority, including authority delegated to the Deputy Director or others, includes, but is not limited to, the authority to withhold approval or modify a proposal, plan, or report prior to approval. The State Water Board, or delegatee with approval authority for a plan, may require consultation with persons or entities with appropriate expertise, including nongovernmental organizations, prior to considering the plan. If the Licensees fail to timely submit an adequate plan, the Deputy Director may prescribe interim requirements or measures in furtherance of the condition that is the subject of the plan. The State Water Board may take action, including enforcement action, if the Licensees fail to provide or implement a required item in a timely manner. If a time extension is needed to submit an item for Deputy Director or Executive Director approval, the Licensees shall submit a written request for the extension, with justification, to the Deputy Director or Executive Director no later than 60 days prior to the deadline. The Licensees shall file with FERC any Deputy Director- or Executive Director-approved time extensions. The Licensees shall not implement any plans or reports until after receiving Deputy Director and Executive Director approval and any other necessary regulatory approvals.

CONDITION 23. The State Water Board reserves the authority to add to or modify the conditions of this certification to incorporate terms of a State Water Board-approved voluntary agreement that helps to meet water quality standards and other appropriate requirements of state law, and that may include, but is not limited to, coordination requirements with watershed groups, modifications to requirements for instream flows, temperature targets, annual plans and reporting requirements, non-flow restoration actions (e.g. gravel augmentation, habitat restoration, large woody material management), and monitoring, assessment, and science requirements.

CONDITION 24. The State Water Board reserves the authority to add to or modify the conditions of this certification: (1) to incorporate changes in technology, sampling, or methodologies; (2) if monitoring results indicate that continued operation of the Projects could violate water quality objectives or impair beneficial uses; (3) to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act; (4) to coordinate the operations of these Projects and other hydrologically connected water development projects, where coordination of operations is reasonably

necessary to meet water quality objectives and protect beneficial uses of water; and (5) to require additional monitoring and/or other measures, as needed, to ensure that continued operation of the Projects meet water quality objectives and protect the beneficial uses of New Don Pedro Reservoir, the Tuolumne River, and the Bay-Delta.

CONDITION 25. Future changes in climate projected to occur during the FERC license(s) term may significantly alter the baseline assumptions used to develop the conditions of this certification. The State Water Board reserves authority to add to or modify the conditions of this certification, to require additional monitoring and/or other measures, as needed, to verify that Projects' operations meet water quality objectives and protect the beneficial uses assigned to Projects-affected stream reaches.

CONDITION 26. The State Water Board shall provide notice and an opportunity to be heard in exercising its authority to add to or modify the conditions of this certification.

CONDITION 27. In addition to the specific conditions in this certification, the Projects shall be operated in a manner consistent with all applicable requirements of the Bay-Delta Plan and SR/SJR Basin Plan.

CONDITION 28. In addition to the specific conditions in this certification, the Projects shall be operated in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

CONDITION 29. Unless otherwise specified in this certification or at the request of the Deputy Director, data and/or reports shall be submitted electronically in a format accepted by the State Water Board to facilitate the incorporation of this information into public reports and the State Water Board's water quality database systems in compliance with California Water Code section 13167.

CONDITION 30. This certification does not authorize any act which results in the taking of a threatened, endangered, or candidate species or any act which is now prohibited, or becomes prohibited in the future, under either the California ESA (Fish & Game Code §§ 2050 – 2097) or the federal ESA (16 U.S.C. §§ 1531 – 1544). If a "take" will result from any act authorized under this certification or water rights held by the Licensees, the Licensees must obtain authorization for the take prior to any construction or operation of the portion of the Projects that may result in a take. The Licensees are responsible for meeting all requirements of the applicable ESAs for the Projects authorized under this certification.

CONDITION 31. The Licensees shall submit any change to the Projects, including operations, facilities, technology changes or upgrades, or methodology, which may have a significant or material effect on the findings, conclusions, or conditions of this certification, to the State Water Board for prior review and written approval. The State Water Board shall determine significance and may require consultation with state and/or federal agencies. If the State Water Board is not notified of a change to the Projects, it

will be considered a violation of this certification. If such a change would also require submission to FERC, the change must first be submitted and approved by the Executive Director of the State Water Board unless otherwise delegated in this certification or other State Water Board approval.

CONDITION 32. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation is subject to any remedies, penalties, process, or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with the water quality standards and other pertinent requirements incorporated into this certification. In response to any violation of the conditions of this certification, the State Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

CONDITION 33. In response to a suspected violation of any condition of this certification, the State Water Board or Central Valley Regional Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. (Wat. Code, §§ 1051, 13165, 13267, and 13383.)

CONDITION 34. This certification shall not be construed as replacement or substitution for any necessary federal, state, and local approvals. The Licensees are responsible for compliance with all applicable federal, state, or local laws or ordinances and shall obtain authorization from applicable regulatory agencies prior to the commencement of Projects' activities.

CONDITION 35. Any requirement in this certification that refers to an agency whose authorities and responsibilities are transferred to or subsumed by another state or federal agency, will apply equally to the successor agency.

CONDITION 36. Upon request, a construction schedule shall be provided to the Deputy Director. The Licensees shall provide State Water Board and Central Valley Regional Water Board staff access to Projects sites to document compliance with this certification.

CONDITION 37. A copy of this certification shall be provided to any contractor and all subcontractors conducting Projects-related work, and copies shall remain in their possession at the Projects site(s). The Licensees shall be responsible for work conducted by its contractor, subcontractors, or other persons conducting work related to the Projects.

CONDITION 38. Onsite containment for storage of chemicals classified as hazardous shall be away from watercourses and include secondary containment and appropriate management as specified in California Code of Regulations, title 27, section 20320.

CONDITION 39. Activities associated with operation and maintenance of the Projects that threaten or potentially threaten water quality shall be subject to further review by the Deputy Director and Executive Officer of the Central Valley Regional Water Board. Any proposal for Projects maintenance or repair work involving Projects-affected water bodies, including desilting of dam impoundments, impoundment drawdowns to facilitate repair or maintenance work, and tailrace dredging, shall be filed with the Deputy Director for prior review and consideration for approval.

CONDITION 40. The Licensees shall comply with the terms and conditions in the State Water Board's *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit; State Water Board Order 2009-0009-DWQ, as amended by State Water Board Orders 2010-0014-DWQ and 2012-0006-DWQ), and ongoing amendments during the life of the Projects.

CONDITION 41. Nothing in this certification shall be construed as State Water Board approval of the validity of any water rights, including pre-1914 claims. The State Water Board has separate authority under the Water Code to investigate and take enforcement action, if necessary, to prevent any unauthorized or threatened unauthorized diversions of water.

CONDITION 42. This certification is subject to modification or revocation upon administrative or judicial review, including but not limited to review and amendment pursuant to California Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with section 3867).

CONDITION 43. This certification is subject to modification to incorporate feasible measures to avoid or reduce significant environmental impacts or to make any necessary findings based on any environmental documents certified by the California Environmental Quality Act (CEQA) lead agency after this certification is issued, including any revisions to those environmental documents made as a result of judicial review of the CEQA lead agency's approval of the Projects.

CONDITION 44. This certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent application for certification was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b) and that application for certification specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

CONDITION 45. This certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28.



Eileen Sobeck
Executive Director

January 15, 2021
Date

Enclosures: Attachment A: Detailed Projects Description
Attachment B: Consolidated Instream Flow Requirements

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ATTACHMENT A: DETAILED PROJECTS DESCRIPTION

**FINAL WATER QUALITY CERTIFICATION
FOR
DON PEDRO HYDROELECTRIC PROJECT
AND
LA GRANGE HYDROELECTRIC PROJECT**

JANUARY 2021

1.0 Introduction

The Don Pedro Hydroelectric Project (Don Pedro Project) and La Grange Hydroelectric Project (La Grange Project) (collectively, Projects), Federal Energy Regulatory Commission (FERC) Project Nos. 2299 and 14581, respectively, are located on the Tuolumne River. The Projects are jointly owned by Turlock Irrigation District (TID) and Modesto Irrigation District (MID) (collectively, Districts). The Don Pedro Project is located in Tuolumne County and has an authorized installed generation capacity of 168 megawatts (MW). The La Grange Project is located immediately downstream of the Don Pedro Project in Stanislaus and Tuolumne Counties and has an authorized installed capacity of 4.7 MW.

The Don Pedro Project consists of New Don Pedro Dam and Don Pedro Reservoir, gated and uncontrolled spillways on the west abutment of the main dam, low-level outlet works located in the diversion tunnel in the east abutment of the main dam, the power intake and tunnel (also in the left abutment), Don Pedro powerhouse, the Project switchyard located at the powerhouse, and four dikes. The La Grange Project consists of La Grange Diversion Dam and Reservoir, La Grange spillway, sluice gates and sluice channel, two penstocks and their intakes, La Grange Powerhouse, an excavated tailrace, and a substation. These Projects facilities are described in further detail below. The descriptions provided in this attachment are for informational purposes only.

2.0 Don Pedro Hydroelectric Project

2.1 New Don Pedro Dam

New Don Pedro Dam is a 1,900-foot-(ft)-long by 580-ft-high earth and rockfill structure. The top of the dam is at an elevation of 855 ft. The dam has a top depth (i.e., thickness) of 40 ft and a bottom depth of approximately 3,000 ft. The downstream slope is grass-covered and the upstream slope has riprap protection extending to an elevation of 585 ft.

2.2 Don Pedro Reservoir

The Don Pedro Reservoir extends for approximately 24 miles at the normal maximum water surface elevation of 830 ft and 26 miles at the upstream Project Boundary water at an elevation of 845 ft. The surface area of the reservoir at an elevation of 830 ft is approximately 12,960 acres (ac) with a gross storage capacity of 2,030,000 acre-feet (AF). The Don Pedro Reservoir shoreline, including the numerous islands within the lake (at the normal maximum water surface elevation), is approximately 160 miles long. The current minimum operating pool elevation is at 600 ft. Water storage below this elevation is approximately 309,000 AF. The old Don Pedro Dam, which was displaced by the construction of New Don Pedro Dam, is located approximately 1.5 miles upstream of New Don Pedro Dam at approximately River Mile 56.4. The old Don Pedro Dam remains in place with its 12 original irrigation outlets in the open position. The permanent concrete spillway crest of old Don Pedro Dam is at an approximate elevation of 597 ft and was topped by nine-foot-high gates, which were removed when New Don Pedro Dam was constructed.

2.3 Don Pedro Spillway

The Don Pedro spillway includes gated and ungated sections, located adjacent to one another in a saddle area west of, and separated from, the main dam. The gated spillway section is 135-ft-long, with a permanent crest elevation of 800 ft, and includes three radial gates each 45-ft-wide by 30-ft-high. The radial gates are operated by motor-driven steel cables. A travel way is provided over the gated spillway along a top deck at elevation 855 ft. Gate trunnions are located at an elevation of 810 ft. The ungated spillway is an ogee crest section 995-ft-long with a permanent crest elevation of 830 ft and a top abutment elevation of 855 ft. The total spillway capacity at a reservoir water level of 850 ft is 472,500 cubic feet per second (cfs). Flow over the ungated ogee crest section of the spillway has occurred only twice since Don Pedro Project construction, during the New Year's 1997 flood and more recently in February 2017. Flows over the spillway are released into a normally dry gulch named Twin Gulch, which discharges into the Tuolumne River approximately 1.5 miles downstream of the main dam. The spillway sections are founded on bedrock. The Twin Gulch spillway channel primarily consists of bedrock and boulders.

2.4 Outlet Works

Low level outlet works are located at the left (east) abutment of the main dam. The outlet works consist of three individual service gate housings, each containing 4-ft-wide by 5-ft-high slide gates. The outlet works are situated in a 3,500-ft-long concrete lined tunnel, a portion of which originally served as the water diversion tunnel during construction. The original water diversion tunnel had an inlet elevation centerline of 315 ft. At the completion of construction, the original inlet for the diversion tunnel was fitted with a concrete plug and a new 12-ft-diameter inlet was constructed with an inlet invert of 342 ft. The diversion tunnel downstream of the new inlet was fitted with three bonneted slide gates. The invert of the three slide gates is at an approximate elevation of 310 ft. A maintenance gate, which travels on an inclined gate track, serves as the inlet to the outlet works. The outlet works tunnel daylight back to the Tuolumne River approximately 400 ft downstream of the powerhouse. The invert of the outlet works at the river discharge is at an approximate elevation of 300 ft. At a reservoir water surface elevation of 830 ft, the hydraulic capacity of the three gates constituting the outlet works is 7,500 cfs. The three gates were refurbished in 2016.

2.5 Power Intake and Tunnel

Flows are delivered from the reservoir to the powerhouse via a 2,960-ft-long power tunnel located in the left (east) abutment of the dam. The tunnel transitions from an 18.5-ft-diameter concrete lined section to a 16-ft-diameter steel lined section. Emergency closure can be provided by a 21-ft-high by 12-ft-wide fixed-wheel gate that is operated from a chamber at the top of the gate shaft located at the left dam abutment. Flows from the power tunnel are delivered to the four unit powerhouse and a hollow jet bypass control valve in the powerhouse. The inlet to the power tunnel is fitted with trash racks and a hydraulically operated bulkhead gate for tunnel dewatering or emergency closure. The power tunnel centerline at the intake is at an elevation of 534 ft, 66 ft below the minimum power pool elevation of 600 ft.

2.6 Don Pedro Powerhouse, Turbines, and Generators

Located immediately downstream of the dam, the reinforced concrete powerhouse contains four turbine generator units and a 72-in hollow jet valve. The powerhouse is 171-ft-long and 148-ft-wide. The powerhouse contains four Francis-type turbines that are direct connected to electrical generators. The current FERC-authorized capacity is 168 MW. Combined hydraulic capacity of the four units under the maximum gross operating head of 530 ft is approximately 5,500 cfs. Each of the three original turbines and generators have a rotational speed of 277 revolutions per minute (rpm) and are rated at 77,700 horsepower (hp) and 48 megavolt-amperes (MVA), respectively, at 450 ft of net head. Turbine 4 was installed in 1989 after FERC approved the Districts' amendment to add the fourth turbine in February 1987. At maximum head (i.e., at full gate flow supplied to each of the four units), the powerhouse has an output capability of 203 MW.

The powerhouse also contains a 72-in hollow jet valve located in the east end of the powerhouse with a centerline elevation, at discharge, of 305 ft. The maximum hydraulic capacity of the hollow jet valve is 3,000 cfs. While Turbines 1, 2, and 3 discharge directly to the river channel, Turbine 4 discharges to the outlet works tunnel approximately 250 ft upstream of the tunnel outlet. Water to Turbine 4 is delivered through a bifurcation from the hollow jet valve piping, such that when Turbine 4 is in operation, the hollow jet valve capacity is reduced from 3,000 cfs to 800 cfs.

Access to the powerhouse is via a secured gate located off the former Visitor Center parking area. The road provides access directly onto the top deck of the powerhouse at an elevation of 340 ft. A 4-ft-high wall surrounds the top deck. A two-hook gantry crane sits atop the deck to provide for equipment and materials delivery to the powerhouse and maintenance services. The generator floor in the powerhouse is at an elevation of 323 ft and the turbine floor is at an elevation of 308 ft.

2.7 Tailrace

The powerhouse and hollow jet valve discharge directly to the Tuolumne River at about River Mile 54. Tailwater elevation during turbine operation varies from a low of about 300 ft to a high of about 304 ft under normal operating conditions. The tailwater elevation at the outlet works tunnel is at approximately 300 ft under low flow conditions.

2.8 Switchyard

The Don Pedro Project switchyard is located atop the powerhouse at an elevation of 340 ft. The switchyard provides power delivery and electrical protection to the Districts transmission systems. The switchyard includes isolated phase buses, circuit breakers, and four transformers that raise the 13.8-kilovolt (kV) generator voltage to 69-kV transmission voltage. Transformers 1, 2, and 3 are rated at 55-MVA and Transformer 4 is rated at 44-MVA. While Transformers 1, 2, and 4 are directly connected to TID's system and Transformer 3 to the MID system, the switchyard has been configured to allow for interconnection across the systems when needed. This system, when

operating in an interconnected fashion, acts as a pathway for electricity to flow across the two systems, providing system benefits to both districts.

2.9 Gasburg Creek Dike

The spillway structures for New Don Pedro Dam discharge into Twin Gulch, a small intermittent drainage, which discharges back into the Tuolumne River 1.5 miles downstream of the dam. To prevent spillway discharges into Twin Gulch from entering the adjacent Gasburg Creek drainage, the Districts constructed the Gasburg Creek Dike. The dike is located in a low saddle that separates Twin Gulch drainage from Gasburg Creek drainage, approximately midway down the Twin Gulch waterway. The 75-ft-high Gasburg Creek Dike consists of an earth and rock fill dam with an impervious core. The dike is equipped with a slide-gate controlled by an 18-in-diameter outlet conduit. The top of Gasburg Creek Dike is at an elevation of 725 ft.

2.10 Dikes A, B, and C

There are three small reservoir rim embankments along the reservoir, which are referred to as Dikes A, B, and C. These embankments are constructed in low saddles on the reservoir rim with top elevations of 855 ft. Dike A is located between the dam and the spillway. Dikes B and C are located east of the dam.

2.11 Station Service

Station service power¹ is provided by primary and secondary station service power transformers. The primary unit is a 69-kV/12-kV step-down transformer that feeds a 12-kV line. The 12-kV line feeds three secondary 12-kV/480-kV step-down transformers. The first two secondary transformers service the spillway motor control centers. The third services the powerhouse. There is a 45-kVA diesel generator that serves as an emergency backup for station service power. There is also a portable propane power unit that can power the gate hoists for the radial gates in an emergency.

3.0 La Grange Hydroelectric Project

3.1 La Grange Dam and Headpond

The La Grange Diversion Dam (LGDD) was constructed for the purpose of raising the level of the Tuolumne River to a height that enabled gravity flow of diverted water into the Districts' irrigation systems. When not in spill mode, the water level above the diversion dam is between 294 ft and 296 ft approximately 90 percent of the time. The headpond formed by LGDD is narrow and steep-sided and flow conditions along the headpond reflect a more riverine than lacustrine environment.

Based on FERC's assessment of hydraulic modeling performed by the Districts, the upper end of the headpond formed by LGDD under non-spill conditions terminates

¹ Station service power refers to the electric energy produced by a project that is used in the project to power lights, motors, control systems, and other auxiliary electrical loads that are necessary to operate the project.

approximately two miles above the diversion dam. This creates a shoreline length of approximately four miles and a surface area of approximately 35 acres. The headpond has a maximum depth of 35 ft, a mean depth of approximately 11 ft, a gross storage capacity of approximately 400 AF, and a usable storage capacity of less than 100 AF.

3.2 Intakes and Tunnels

Water released from Don Pedro Reservoir is either diverted by TID or MID at LGDD for irrigation or municipal water supply purposes at LGDD or passes to the lower Tuolumne River through one of the flow passageways available at the diversion dam. MID's diversion tunnel intake is located on the west (looking downstream, river right) end of the diversion dam, and TID's diversion tunnel intake is located on the east (river left) end of the diversion dam. Consistent with each irrigation districts' acreage served, the irrigation canals were constructed such that approximately 68 percent of diverted flow is routed to the TID system and 32 percent to the MID system.

3.3 MID's Intake and Diversion Tunnel

MID's diversion tunnel and intake are non-Project facilities, as they are not used in conjunction with TID's hydropower facility.

Due to maintenance and repair issues experienced along its Upper Main Canal, in 1987/1988 MID constructed the current diversion tunnel and tunnel intake to bypass the upper section of the Main Canal. The intake to the MID diversion tunnel is located in the face of a cliff on the west (river right) bank about 100 ft upstream of LGDD. The invert of the MID tunnel is at an elevation of 277.4 ft. Flow is conveyed through the 15.5-foot-diameter tunnel for 895 ft to a control structure. Flow is then conveyed through a 5,300-foot-long tunnel to an outlet structure which controls flow to the MID non-Project Main Canal. The canal provides water to MID's irrigation and municipal water systems. The design maximum flow rate for this tunnel is approximately 2,000 cfs.

3.4 TID's Intake and Diversion Tunnel

TID's diversion tunnel and intake are non-Project facilities, the primary purpose of which are to divert Tuolumne River flows to TID's main irrigation canal. The TID intake is located on the east (left) bank just upstream of the diversion dam and consists of two separate structures. The south intake structure contains two 8-ft-wide by 11.8-ft-high control gates driven by electric motor hoists. The north intake structure contains a single 8-ft-wide by 12-ft-high control gate.

The north intake structure was added in 1980 to increase the delivery capability of TID's irrigation canal system by reducing head losses through a single intake and lowering the tunnel invert. Flows from the intake are conveyed to a 600-foot-long tunnel and thence the 110-ft-long forebay of the TID non-Project Main Canal. The forebay was modified in the 1980's to reinforce the structure. Flows to TID's irrigation system are regulated at the non-Project Main Canal Headworks, which consists of six slide gates, each of which is 5-ft-wide by 8.3-ft-high.

3.5 Powerhouse Intake and Main Canal Headworks

Flows from the TID tunnel discharge nearly 600 ft downstream from the intake into a concrete channel that contains the penstock intake structure and TID's non-Project Upper Main Canal Headworks. At the tunnel outlet portal, the channel invert is approximately 18 ft wide and gradually expands to 39 ft wide at the face of the Upper Main Canal Headworks. The channel runs 118 ft along the centerline of flow and is constructed with a gradual bend to the south as it enters the TID non-Project Upper Main Canal.

The original invert of the channel was constructed at an elevation of approximately 281.2 ft but was excavated and rebuilt at a lower elevation of nearly 278 ft in 1980 to improve the irrigation flow delivery capacity to the TID Upper Main Canal. TID currently maintains an 18-in pipe in an open position, which continuously delivers flow to the sluice gate channel downstream of the sluice gates. This water flows into the tailrace just upstream of the powerhouse. The flow quantity is not measured but is estimated to be approximately 5 to 10 cfs.

Located at the west side of the concrete channel, the penstock intake structure contains a trashrack structure and three 7.5-ft-wide by 14-ft-high concrete intake bays that deliver water to the two penstocks. Manually-operated steel gates are used to shut off flows through these intakes. Immediately upstream and adjacent to the penstock intakes are two automated 5-ft-high by 4-ft-wide sluice gates that discharge water over a steep rock outcrop and sluice gate channel to the tailrace just upstream of the powerhouse.

The non-Project TID irrigation canal headworks structure was originally constructed with five 5-ft-wide by 8.3-ft-high outlets controlled by fabricated steel gates. In 1980, a sixth gate was added as part of the rehabilitation of the forebay. The sixth gate is the same dimensions of the original five gates. All the 1980 modifications were performed to improve the control of flows as part of improvements to the TID irrigation system.

3.6 La Grange Powerhouse

The La Grange powerhouse is located approximately 0.2 miles downstream of LGDD on the south (left) bank of the Tuolumne River. The power plant is owned and operated by TID. Water diverted through the TID intake and tunnel can enter the two penstocks that deliver flow to the powerhouse. The two-unit powerhouse was built in 1924. The powerhouse is a 72-ft by 29-ft structure with a reinforced concrete substructure and steel superstructure. The intakes for the two penstocks are located in the west (right) side of the forebay. The penstock for Unit 1 is a 235-ft-long, 5-ft-diameter steel pipe. The penstock for Unit 2 is a 212-ft-long, 7-ft-diameter steel pipe.

There have been no modifications to the powerhouse since its original construction in 1924, except for routine maintenance and repairs.

3.7 Turbines, Generators, and Accessory Equipment

The La Grange powerhouse contains two turbine-generator units originally installed circa 1924/1925. The turbine of the smaller unit (Unit 1) contains a Voith runner rated, at its cavitation limit, at 1,650 horsepower at 140 cfs and 115 ft of net head. The larger unit (Unit 2) also contains a Voith runner rated, at its cavitation limit, at 4,950 horsepower at 440 cfs and 115 ft of net head. The actual net head at the plant varies with flow, which affects flow capacity and unit output. The runners of the original turbine-generator units were replaced with the current Voith runners in 1989.

Historically, the flow capacity of the original 1924 units exceeded 600 cfs. The units with the Voith replacement runners have a combined capacity of about 580 cfs at the guaranteed maximum capacity (i.e., their cavitation limit). The original Unit 1 design was an unconventional configuration, even for the 1910/1920s, consisting of a single horizontal Francis turbine coupled to two 500-kilowatt generators, one on each side of the turbine. The powerhouse has a minimum hydraulic capacity of roughly 100 cfs.

This two-generator configuration was replaced with an industry-standard single-generator configuration as part of the 1989/1990 rehabilitation work. The original Unit 2 design was a conventional configuration consisting of a single vertical Francis turbine coupled to a single 3,750-kilowatt generator. At the turbines' guaranteed maximum capacity, the combined generator output is approximately 4.7 MW.

3.8 Substation and Transmission Line

There are no FERC-jurisdictional transmission lines associated with the La Grange Project. The transmission line connecting the La Grange Powerhouse to the grid originates at the 4.16-/69-kV transformer in the substation located on the east side of the powerhouse. This transmission line connects to both TID's Tuolumne Line No. 1 and its Hawkins Line. In the event that the La Grange Project powerhouse is decommissioned in the future, this transmission line would need to be retained to provide power needed to operate the Main Canal Headworks associated with the irrigation canal systems and the sluice gates. Therefore, under FERC's transmission line jurisdictional criteria, the transmission line currently serves as part of the existing distribution/transmission grid and, therefore, would not fall under FERC jurisdiction.

**ATTACHMENT B: CONSOLIDATED INSTREAM FLOW
REQUIREMENTS**

**FINAL WATER QUALITY CERTIFICATION
FOR
DON PEDRO HYDROELECTRIC PROJECT
AND
LA GRANGE HYDROELECTRIC PROJECT**

JANUARY 2021

**Consolidated Instream Flow Requirements in
Conditions 1.B, 1.C, and 1.D (provided for illustrative purposes)**

Attachment B, Table 1 Consolidated Instream Flow Requirements Downstream of La Grange Dam, River Mile 51.7

Time Period	W (cfs)	AN (cfs)	BN (cfs)	D (cfs)	C (cfs)	Pulse Flows (TAF)	Function	Bay-Delta Plan Flows ¹
January 1 – 31	225	225	225	200	200		Wet season base flow	LSJR Feb – June flow objectives
February 1 – 15	225	225	225	200	175			
February 16 – 28/29	225	225	225	200	175	109,091 AF in W & AN; 98,182 AF in BN; 76,364 AF in D; 49,091 AF in C ² -----	Floodplain activation pulse & wet season base -----	
March 1 – April 15	250	250	250	225	200			
April 16 - 30	275	275	275	250	200	Plus 150 TAF in W & AN; 100 TAF in BN; 75 TAF in D; 35 TAF in C ³	Outmigration pulse & wet season base	
May 1 – 15	275	275	275	250	200			
May 16 – 31	300	300	300	275	225			
June 1 – 30	200	200	200	200	200			July – January adaptive methods allow flow shifting, if approved
July 1 – September 30	350	350	350	300	300		Dry season base flow	
October 1 – 15	350	350	350	300	300	Plus 20 TAF in W, AN; 15 TAF in BN & D; 10 TAF in C	Fall pulse flow window & dry season base flow	
October 16 – November 30	275	275	275	225	200			
December 1 – 31	275	275	275	225	200		Dry season base flow	

- 1) When LSJR flow requirements exceed minimum instream base flows, LSJR requirements control and can also be used to meet Conditions 1.B and 1.C.
- 2) For BN, D, or C years that occur in a sequence that starts with a D or C year and contains no W or AN years then dry year off-ramps will apply, in which case no floodplain pulse will be required for D and C years and the pulse will be reduced to 76,364 AF for BN years.
- 3) In a sequence of C and D years, off ramps are applied to the spring pulse flow volume. When these off ramps are applied, the D year spring pulse flow volume is reduced to 45 TAF, and the C year spring pulse flow volume is reduced to 11 TAF.

Abbreviations: cfs – cubic feet per second; LSJR – Lower San Joaquin River; AF – acre-feet; TAF – thousand acre-feet; W – Wet, AN – Above Normal, BN – Below Normal, D – Dry, C – Critical.

Attachment B, Table 2 Consolidated Instream Flow Requirements Downstream of Potential New Point or Points of Diversion or Rediversion, River Mile 25.9

Time Period	W (cfs)	AN (cfs)	BN (cfs)	D (cfs)	C (cfs)	Pulse Flows (TAF)	Function	Bay-Delta Plan Flows ²
January 1 – 31	225	225	225	200	200		Wet season base	LSJR Feb – June flow objectives
February 1 – 15	225	225	225	200	175			
February 16 – 28/29	225	225	225	200	175	109,091 AF in W & AN; 98,182 AF in BN; 76,364 AF in D; 49,091 AF in C ²	Floodplain activation pulse & wet season base	
March 1 – April 15	250	250	250	225	200	-----	-----	
April 16 – 30	275	275	275	250	200	Plus 150 TAF in W & AN; 100 TAF in BN; 75 TAF in D; 35 TAF in C ³	Outmigration pulse & wet season base	
May 1 – 15	275	275	275	250	200			
May 16 – 31	300	300	300	275	225			
June 1 – 30	100	100	100	75	75			
July 1 – September 30	200	200	200	200	200		Dry season base flow	July – January adaptive methods allow flow shifting, if approved
October 1 – 15	200	200	200	200	200	Plus 20 TAF in W, AN; 15 TAF in BN & D; 10 TAF in C	Fall pulse flow window & dry season base flow	
October 16 – November 30	275	275	275	225	200			
December 1 – 31	275	275	275	225	200		Dry season base flow	

- 1) When LSJR flow requirements exceed minimum instream base flows, LSJR requirements control and can also be used to meet Conditions 1.B and 1.C.
- 2) For BN, D, or C years that occur in a sequence that starts with a D or C year and contains no W or AN years then dry year off-ramps will apply, in which case no floodplain pulse will be required for D and C years and the pulse will be reduced to 76,364 AF for BN years.
- 3) In a sequence of C and D years, off ramps are applied to the spring pulse flow volume. When these off ramps are applied, the D year spring pulse flow volume is reduced to 45 TAF, and the C spring pulse flow volume is reduced to 11 TAF.

Abbreviations: cfs – cubic feet per second; LSJR – Lower San Joaquin River; AF – acre-feet; TAF – thousand acre-feet; W – Wet, AN – Above Normal, BN – Below Normal, D – Dry, C – Critical.

**EXHIBIT 3:
ORDER DENYING STAY**

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

ORDER WQ 2021-0007-EXEC

IN THE MATTER OF THE REQUEST FOR STAY OF
WATER QUALITY CERTIFICATION BY TURLOCK IRRIGATION DISTRICT AND
MODESTO IRRIGATION DISTRICT

Order Denying Stay

BY THE EXECUTIVE DIRECTOR:

1.0 INTRODUCTION

On January 15, 2021, the State Water Resources Control Board's (State Water Board or Board) Executive Director issued a water quality certification (certification) under section 401 of the Clean Water Act for the Don Pedro Hydroelectric Project and La Grange Hydroelectric Project, Federal Energy Regulatory Commission Project Nos. 2299 and 14581, respectively.¹ The State Water Board received timely petitions for reconsideration of the certification from four groups of petitioners: (i) Turlock Irrigation District and Modesto Irrigation District (collectively, Districts); (ii) the City and County of San Francisco; (iii) the Bay Area Water Supply and Conservation Agency; and (iv) the Tuolumne River Trust, California Sportfishing Protection Alliance, Trout Unlimited, American Rivers, American Whitewater, Merced River Conservation Committee, Friends of the River, Golden West Women Flyfishers, Central Sierra Environmental Resource Center, Tuolumne River Conservancy, and Sierra Club Mother Lode Chapter.

The Districts' Petition for Reconsideration and Request for Stay (Petition) requests that the State Water Board withdraw the certification in its entirety. The Petition also requests

¹ In the Matter of Water Quality Certification for Turlock Irrigation District and Modesto Irrigation District, Don Pedro Hydroelectric Project and La Grange Hydroelectric Project, Federal Energy Regulatory Commission Project Nos. 2299 and 14581 (Jan. 15, 2021). The State Water Board has delegated authority to act on applications for certification to the Executive Director. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)

that the State Water Board stay the certification during the period while the Board considers the Petition. This Order addresses only the Districts' request for stay. The merits of the Districts' and other parties' petitions for reconsideration will be decided at a later date. For the reasons below, this Order denies the request for stay.

2.0 BACKGROUND

The Don Pedro Hydroelectric Project and La Grange Hydroelectric Project (collectively, Projects) are located on the Tuolumne River in Tuolumne and Stanislaus Counties, California. On April 28, 2014, the Districts filed an application with the Federal Energy Regulatory Commission (FERC) for a new license to continue to operate and maintain the Don Pedro Hydroelectric Project. The license expired on April 30, 2016, and the Districts continue to operate the Don Pedro Hydroelectric Project under annual licenses. On October 11, 2017, the Districts filed an application for an original license with FERC to operate and maintain the La Grange Hydroelectric Project. The applications for a new and original license are still pending before FERC.

In December 2018, in response to the continuing decline of the Bay-Delta ecosystem, the State Water Board adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan) that include new and revised water quality objectives for the Lower San Joaquin River (LSJR) and its three salmon-bearing tributaries, the Stanislaus, Tuolumne, and Merced Rivers and revised salinity water quality objectives for the southern Delta. The LSJR flow objectives require a portion of flow be maintained in the three tributaries during certain times of year to ensure suitable habitat and migratory pathways for native fish.

Issuance of a FERC license is a federal action that requires certification under section 401 of the Clean Water Act. (33 U.S.C. § 1341.) Before FERC can issue a license, a section 401 certification issued by the State Water Board or a waiver of section 401 authority is required. In order to issue a certification, the State Water Board must have sufficient information to show that operation of the Projects is consistent with both water quality objectives and the protection of the beneficial uses designated for the Tuolumne River and the San Joaquin River in the Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin and in the Bay-Delta Plan. Any certification issued by the State Water Board must include conditions that implement these requirements and any other appropriate requirement of state law. (33 U.S.C. § 1341(d).

On July 20, 2020, the Districts filed requests with the State Water Board for section 401 certification of the Projects.² On October 2, 2020, the Districts filed a petition requesting

² Previously, the Districts requested certification for the Projects from the State Water Board on January 26, 2018, and April 22, 2019. The State Water Board timely denied the requests without prejudice on January 24, 2019, and April 20, 2020, respectively. The

FERC to find that the State Water Board has waived its certification authority for the Projects. On November 19, 2020, the Districts filed a formal withdrawal of their July 20, 2020 requests for certification based on their argument that the State Water Board had waived its certification authority under section 401. The State Water Board issued a draft certification for the Projects on November 30, 2020, and a final certification on January 15, 2021. On January 19, 2021, FERC denied the Districts' petition and found that the State Water Board had not waived its certification authority for the Projects.

The Districts timely petitioned the State Water Board for reconsideration of the certification and requested a stay pending the Board's reconsideration decision.

3.0 LEGAL STANDARD FOR STAY REQUESTS

A stay is extraordinary relief that is granted in few cases. In order to grant a stay, the State Water Board must find that a petitioner seeking a stay has alleged facts and produced proof of: (1) substantial harm to the petitioner or to the public interest if the stay is not granted; (2) lack of substantial harm to other interested persons and the public interest if a stay is granted, or the harm that would result from the stay being granted is substantially outweighed by the harm that would occur if no stay is granted; and (3) substantial questions of law or fact regarding the disputed action. (Cal. Code Regs., tit. 23, § 3869, subd. (d)(1)(A)-C.) A petitioner must provide facts and proof of each of the three factors in order for a stay to be granted. Failure to meet any of the elements will result in denial of the stay request.

In addition, the issue of whether a stay is appropriate is evaluated in the temporal sense—a petitioner must prove that it will suffer substantial harm if a stay is not granted for the relatively brief period pending resolution of the petition on the merits. (State Water Board Order WQ 2006-0007 (*Boeing Company*), p. 4; State Water Board Order WQ 2011-0007 (*Merced Irrigation District*), p. 6; State Water Board Order WQO 2002- 0007 (*County of Los Angeles*), p. 3.)³ Thus, the issue before the State

Districts, as lead agencies under the California Environmental Quality Act (CEQA), had not begun the environmental analysis required under CEQA, FERC had not completed its National Environmental Policy Act analysis, and the State Water Board could not determine compliance with water quality standards at the times the requests for certification were denied.

³ Certain water quality orders cited address requests for stay pursuant to California Code of Regulations, title 23, section 2053, which does not apply to this matter. Section 2053 applies to the State Water Board's review of an action by a Regional Water Quality Control Board. Nonetheless, section 2053 requires facts and proof of the same factors as those required by section 3869 and, thus, the discussion of the factors under section 2053 also informs the consideration of the factors under section 3869.

Water Board is not whether the Districts might prevail on any of the merits of their claims or suffer substantial harm over the term of the federal license(s), once issued.

4.0 DISCUSSION

4.1 The Districts have not shown substantial harm to them or to the public interest if a stay is not granted

The Districts allege that unless the certification is stayed, substantial harm will follow from implementation of the certification's requirements. They assert that the certification is immediately enforceable under state law (citing Water Code section 13385, subdivision (a)(5)) and that FERC could incorporate some or all of the conditions of the certification into the Districts' license(s) at any time. The Districts also cite to the declaration of Dr. Susan Burke in support of their petition for reconsideration and request for stay. The declaration includes a copy of Dr. Burke's report on "Estimating Changes in Agricultural Production Impact Assessment Methodology Technical Memorandum," dated January 15, 2021,⁴ which estimates the economic impacts of the certification on the agricultural economy of Stanislaus and Merced Counties over a 42-year study period for three metrics (output, jobs, and labor income), based on certain modeling assumptions.

State Water Board regulations specify, however, that a petitioner must show "substantial harm to the petitioner or to the public interest *if a stay is not granted.*" (Cal. Code Regs., tit. 23, § 3869, subd. (d)(1)(A), italics added.) The only costs relevant to an analysis for purposes of a stay are those costs that may be incurred pending the State Water Board's decision on the merits of the Districts' petition for reconsideration. The Districts' economic estimates do not reflect the actual costs that may be incurred during the reconsideration period because compliance with the certification is not anticipated while it is pending reconsideration, or, as discussed below, before FERC issues the federal licenses for the Projects.

Moreover, the Districts are unlikely to incur any significant actual costs associated with implementation of the certification before the State Water Board acts on the reconsideration request. The Districts do not provide any facts to support their suggestion that FERC could incorporate some or all of the conditions of the certification into the Districts' licenses before the State Water Board takes final action on the Districts' petitions for reconsideration. FERC's licensing process is ongoing, and the additional procedural requirements FERC must follow are almost certain to take substantially longer than the State Water Board will take to act on the Districts' petitions for reconsideration. For example, section 7 of the Endangered Species Act (ESA) requires federal agencies to consult with the United States Fish and Wildlife Service or the National Marine Fisheries Service (NMFS), or both, before engaging in a discretionary action that may

⁴ The footer on the report is dated February 2021.

affect listed species or critical habitat. (16 U.S.C. § 1536.) By letter dated October 2, 2020, NMFS notified FERC that NMFS had closed out FERC's previous consultation requests pursuant to ESA section 7 and the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. 1801 et seq., due to inactivity. FERC has yet to reinitiate its consultation with NMFS. There is no information to support the conclusion that FERC will imminently issue licenses incorporating some or all of the certification.

Additionally, the asserted prospect of enforcement by the State Water Board generally does not support a stay. It is not the State Water Board's practice to seek enforcement while a petition for reconsideration of a certification is pending. Even where the potential for civil and administrative enforcement were not speculative, the State Water Board has rejected the possibility, or even probability, of enforcement actions as justification for a requested stay because it is very unlikely that the enforcement action would be concluded during the time a stay was in place. (State Water Board Order WQ 2006-0007 (*Boeing Company*), pp. 9-10.) If enforcement is proposed or initiated, the District may seek reconsideration or a stay of the action at that time

Moreover, the State Water Board does not intend to enforce the certification conditions before the federal license is issued (and even then only if enforcement is warranted). In the context of state regulation of FERC-licensed hydroelectric projects, the state's exercise of its state law authority independent of section 401 of the Clean Water Act is subject to Federal Power Act preemption. (*Karuk Tribe of Northern California v. California Regional Water Quality Control Bd., North Coast Region* (2010) 183 Cal.App.4th 330.)⁵ While section 401 makes applicants subject to the state's procedural requirements for certification, the requirement for compliance with the conditions of certification takes effect upon issuance of the federal permit or license. (33 U.S.C. § 1341(d).) Accordingly, there is substantial doubt that the state has authority to enforce the conditions of certification for a FERC-licensed hydroelectric project until and unless the license subjected to the certification is issued. Indeed, the State Water Board has never sought to enforce a certification before the license is issued. In sum, the possibility of enforcement by the State Water Board and, in particular, the conclusion of any enforcement action during the period a stay would be in effect, is far too speculative to warrant a stay.

The Districts have failed to prove substantial harm justifying a stay of the certification while their petition for reconsideration is pending.

⁵ State Water Board Order 2003-0017-DWQ does not apply here. The order applies to discharges of dredged or fill material regulated under Clean Water Act section 404 and issues water discharge requirements to persons who are proposing to discharge dredged or fill material where the discharge is also subject to Clean Water Act section 401 certification. It does not pertain to Clean Water Act section 401 certification of FERC-licensed hydroelectric projects unless expressly provided by the certification.

4.2 The Districts have not shown a lack of substantial harm to other interested persons and the public interest if a stay is granted

As with their argument concerning harm if a stay is not granted, the Districts' arguments concerning a lack of substantial harm to other interested persons and the public if a stay is granted fail to distinguish between harm during the period over which the State Water Board considers the petitions for reconsideration and harm during the 40 to 50 years the FERC license will be in effect. Because the burden of proof is on the Districts, this discussion briefly focuses on the arguments made by the Districts and does not speculate as to the arguments the Districts could have made if they had focused on the limited period a stay would be in effect. It bears emphasis that a stay will not be granted simply because there would be little harm in doing so—it also must be demonstrated that there will be substantial harm to the petitioners or the public interest from not granting a stay.

The Districts allege that a stay would not cause harm because the Legislature has already determined that the uses to which the Districts are putting their water are the highest uses and the certification does not provide any significant benefits. While the Districts fail to address harm during the relatively short period before the State Water Board acts on the petition for reconsideration, this order briefly addresses the issues raised by the Districts' arguments – one issue amounts to a legal argument regarding whether the State Water Board has authority to adopt conditions to protect instream beneficial uses and another mischaracterizes a model referenced by the Board in the environmental document supporting the Bay-Delta Plan amendments.

The Districts first cite to Water Code section 106, which expresses the policy of the state “that the use of water for domestic purposes is the highest use of water and that the next highest use is for irrigation.” The Districts suggest that it is improper to prioritize fish and wildlife beneficial uses in light of section 106, alleging that the certification would take water from these “highest” municipal and agricultural uses “and put it to environmental uses the Legislature has deemed less important.” (Petition, p. 72.) Thus, the Districts conclude, the “Legislature has already determined that the balance of harms tips strongly against the Order.” (*Ibid.*)

The priorities in Water Code section 106 are important, but they are not absolute. Water Code section 107 expressly declares that the declaration of policy in the same chapter (Wat. Code, §§ 100 - 113) “is not exclusive, and all other or further declarations of policy in this code shall be given their full force and effect.” Thus, section 106 must be considered in the context of other statutory declarations of policy that also establish policies for the administration and protection of the state's water resources. Importantly, the Porter-Cologne Water Quality Control Act establishes state policy that the “quality of all the waters of the state shall be protected for use and enjoyment by the people of the state” and “activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved” (Wat. Code, § 13000.) The State Water Board is thus required to formulate and adopt

water quality control plans consistent with this policy (§§ 13240, 13170) and which contain water quality objectives that will ensure the reasonable protection of beneficial uses (§ 13241). This includes the reasonable protection of fish and wildlife beneficial uses. (*Id.*, § 13050, subd. (f).)

The California Supreme Court has explained that the primary function of Water Code sections 106 and 106.5 (pertaining to municipal water rights) is to establish priorities among competing appropriators, but that the sections also declare principles of California water policy applicable to any allocation of water resources. (*National Audubon Society v Superior Court* (1983) 33 Cal.3d 419, 447, fn 30.) In the latter context, the Court explained that the policy must be read “in conjunction with later enactments requiring the consideration of in-stream uses . . . and judicial decisions explaining the policy embodied in the public trust doctrine.” (*Ibid.*) Thus, the Court concluded “neither domestic and municipal uses nor in-stream uses can claim an absolute priority.” (*Ibid.*) Contrary to the Districts’ assertion, section 106 does not support the conclusion that the weighing of harms tips against the certification.

The Districts also assert that setting aside the certification will not cause any significant harm to the environment because the SalSim analysis in the Substitute Environmental Document (SED) supporting the 2018 Bay-Delta Plan amendments⁶ shows that the unimpaired flows would have an insignificant benefit to salmon in comparison to the millions of fish produced from state and federal hatcheries. SalSim is a life-history population simulation model for fall-run Chinook salmon originating from the San Joaquin River and its upper three east-side salmon-bearing tributaries (Stanislaus, Tuolumne, and Merced Rivers) developed by the California Department of Fish and Wildlife and others. The Districts’ assertion mischaracterizes the State Water Board’s use of SalSim in the SED. The SED discusses the SalSim model’s application and limitations, including providing a “use advisory,” and is quite clear that the State Water Board did not rely on SalSim due to the model’s limitations, either for impact determinations in the SED or for its conclusions regarding fish benefits.⁷ Moreover, as explained in the SED, scientific information strongly supports the LSJR flow objectives, which require inflow conditions sufficient to support and maintain the natural production of viable native San Joaquin River watershed fish populations migrating through the Delta, and their substantial benefits.

⁶ Final Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Dec. 12, 2018).

⁷ For example, SalSim is discussed in SED Chapter 19, *Analyses of Benefits to Native Fish Populations from Increased Flow between February 1 and June 30*, and Master Response 3.1, *Fish Protection*, as well as in other SED locations.

Finally, the Districts' declaration addresses the modelled estimated economic impacts of the certification on the regional agricultural economy and does not provide any evidence of lack of harm to other interested persons or the public interest if the stay is granted.

4.3 Substantial questions of fact or law regarding the disputed action

The Districts point to arguments in their petition for reconsideration that there are substantial questions of law and fact regarding the certification. They assert that there is no jurisdiction for the certification, the certification violates the law, and the evidence does not support the certification. Because section 3869 requires a showing of all three factors discussed above, and the Districts have not shown substantial harm to them or the public interest, it is unnecessary to address the legal arguments in this order.

5.0 CONCLUSION

The Districts' request for a stay while a decision on their petition for reconsideration is pending is denied because the Districts have failed to meet their burden of demonstrating that (i) there will be substantial harm to the Districts or the public interest if the stay is not granted, (ii) neither the public interest nor other interested persons will suffer substantial harm if the stay is granted, and (iii) substantial questions of fact or law regarding the disputed action exist.

Nothing in this order implies a decision by the State Water Board on the merits of the Districts' petition for reconsideration. The merits of the petition will be decided at a later date.

March 15, 2021

Date



Eileen Sobeck
Executive Director

**EXHIBIT 4:
FLOOD PLAIN RESTORATION
COST ESTIMATE**

**RESPONSE TO FEBRUARY 16, 2018 REQUEST FOR ADDITIONAL
INFORMATION, RESOURCE AGENCY LATE FILING, AND
OTHER RELATED INFORMATION**

ATTACHMENT N

**BASIS OF UNIT COST DEVELOPMENT FOR
USFWS AND CDFW 10(J) RECOMMENDATIONS
REGARDING FLOODPLAIN RESTORATION**

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Technical Memorandum

Date: May 02, 2018

To: Turlock and Modesto Irrigation Districts

From: Daniel March, PE and Michael Garelo, PE (HDR)

Subject: **Basis of unit cost development for USFWS and CDFW 10(j) recommendations regarding floodplain restoration**

Introduction

This Technical Memorandum (TM) summarizes the development of order of magnitude unit costs representative of the level of effort required to perform floodplain reclamation and restoration adjacent to the lower Tuolumne River. The unit cost is developed using information and knowledge obtained by the Turlock Irrigation District (TID) and HDR Engineering, Inc. (HDR) through the implementation of floodplain restoration projects in the past decade. This final range of unit costs is intended to provide a gross estimate to be scaled to develop high-level cost estimates for floodplain restoration efforts recommended by the USFWS and CDFW in their January 29, 2018 10(j) recommendations on the Don Pedro Project. Neither the agencies, nor the authors of this memo, have verified whether suitable conditions for additional restoration projects even exist in the lower Tuolumne River.

Basis of Costs

Any potential floodplain restoration efforts along the banks of the Tuolumne River would require work under challenging conditions through the gravel mining reach, through Special Run Pool reaches, or through agricultural reaches. Solutions to working with private landowners, getting access (temporary and/or permanent) through active mining operations or agricultural land, acquisition of aggregate or mineral rights, reclamation of tailings ponds, and other types of land use challenges must be identified. A previously designed project was identified and used as the basis of cost to estimate the level of effort and associated cost that would be required. The resulting cost was then divided by the modified floodplain area to generate a unit cost that can be applied on a per acre basis.

For this activity, the previous project estimate developed by TID titled "Tuolumne River Channel Restoration Project: MJ Ruddy – Warner – Deardorff Mining Reaches" located at RM 35.2 to 37.5 was used to evaluate the work tasks and costs required to accomplish the goal of floodplain restoration. Sub reaches of the project were originally designed for TID in 2002 and 2004 and all three reaches were consolidated as one project in 2010. All potential cost items and singular unit costs were escalated to reflect 2018 US dollars. Total project costs were then used to develop unit costs per acre. Base costs are developed to an order of magnitude level of accuracy and therefore the recommended cost per unit acre is provided as a potential range calculated as -20% to +40% of the base unit cost. The basis of costs include the following phases of work:

1. Project formulation, design, and development of construction drawings – Development of specific project objectives, identification of project extents, preliminary design, site surveying and characterization, final design, development of quantities, preparation of contract documents for the purpose of bidding, and coordination among stakeholders and resource agencies.
2. Project right-of-way and easement acquisition – Landowner outreach, identification of temporary and permanent right-of-way limits, development of preliminary right-of-way drawings, verification of mineral rights acquisition costs, verification of real estate value, and final easement or property acquisition.
3. Procurement of nursery stock – Procurement of native plant nursery stock one-year in advance of project construction. Costs include rearing, delivering, and installing native plant materials anticipated for the project.
4. Construction – Execution of a contractual agreement with a prime contractor to provide all labor, equipment, and materials (with the exception of native plants) and installing the project as detailed in the approved drawings and specifications.
5. Post construction monitoring and plant management (assumed to be a minimum of 5 years) – This line item includes carrying forth an agreement with the native plant nursery to actively manage native plantings and perform annual monitoring reports that are to be submitted to the resource agencies as part of the project permitting requirements. Plant management includes non-native weed eradication within the project limits, native plant replacement, and temporary irrigation systems. Monitoring includes collection of water table data, plant survival, and plant replacement activities.

The following project elements describe the example used:

- 134 total acres of floodplain reclaimed and revegetated along 2.8 miles of river;
- 1 mile of water control berm to isolate flood flows from tailings ponds, mining operations, and agricultural land uses (not in conformance with FEMA regulatory requirements);
- 16 acres of existing tailings ponds reclaimed;
- Presence of engineered log jams and other forms of engineered habitat and river training elements were not included;
- The project occurs in an active aggregate mining reach; and
- Access to both sides of the river was required in perpetuity for mining and native plant management operations (performed via railcar bridge in this case).

Estimate Approach

The revised opinion of probable project costs (OPPC) uses volumes from the MJ Ruddy – Warner – Deardorff Mining Reaches restoration project with updated unit costs to reflect assumed 2018 construction costs. A detailed breakdown of all line items is provided in Appendix 1.

1. OPPC for the 100% design of the MJ Ruddy Reach of the Tuolumne River Restoration project prepared for TID in 2002 and 2004 was used as the basis of this OPPC.
2. Unit costs were updated to reflect 2018 US dollars.

3. Gravel mineral rights acquisition costs were computed using minable gravel volumes.
4. Gold mineral rights acquisition costs were computed using minable tonnage resulting from the Mineral Report created for the MJ Ruddy Reach in 2004 (HDR, 2004), averaged site specific fine gold ounces/ton, and current (4/2018) gold prices.
5. Administrative costs are based on typical percentage of construction costs.
6. Total project cost includes administrative, construction, right-of-way, mineral rights and easements.
7. Total project costs are divided by the area of floodplain formed in the example project resulting in cost/acre that are scalable for high level cost estimates of potential projects.

Results

Detailed calculations and results are provided in Appendix 1. A summary of results is provided below. Table 1 provides a summary of costs estimated for the example project which resulted in 134 acres of floodplain restoration. Table 2 provides a range of unit costs for both construction and total project costs (including right-of-way acquisition and implementation costs). The base unit costs of \$262,000/acre and \$385,000/acre were the result of the total construction costs and total project costs divided by the total number of floodplain acres (134). These values are expressed as a range of potential costs (-20% and +40% of the base unit cost) to account for the lack of specificity associated with the 10(j) recommendations.

Table 1. Summary of example project costs.

Cost Item Description	\$US (2018)
Project formulation, design, administration, and owner construction management	\$ 13,304,940
Project right-of-way and easement acquisition	\$ 3,245,364
Procurement, installation, management, and monitoring of nursery stock	\$ 1,245,000
Construction	\$ 33,768,000
Total Example Project Costs	\$ 51,563,304

Table 2. Summary of unit costs expressed in \$US (2018) per acre of floodplain.

Unit Cost Description	LOW (-20%)	BASE	HIGH (+40%)
Unit cost of construction and revegetation	\$ 209,600	\$ 262,000	\$ 366,800
Unit cost of total project costs	\$ 308,000	\$ 385,000	\$ 539,000

References Cited

HDR. 2004. Tuolumne River Restoration Project - MJ Ruddy Reach Mineral Report. Prepared for Turlock Irrigation District, November 2004.

Appendix 1 – Cost Data and Calculations

**TURLOCK AND MODESTO IRRIGATION DISTRICTS
LA GRANGE HYDROELECTRIC PROJECT FERC NO. 14581
PRELIMINARY FLOODPLAIN GRADING - PROJECT IMPLEMENTATION AND CONSTRUCTION COSTS
SUMMARY OF TOTAL AND UNIT COSTS (\$US, 2018)**

Table 1 - Example project ROW and easement acquisition costs.

PROJECT ROW AND MINERAL RIGHTS COSTS	UNITS	UNIT COST	QUANTITY	COST
RIGHT-OF-WAY ACQUISITION, PERM	AC	\$15,000	134	\$2,008,800
RIGHT-OF-WAY ACQUISITION, TCE	AC	\$1,000	10	\$9,500
MINERAL RIGHTS ACQUISITION (GRAVEL)	AC	\$5,616	134	\$752,524
MINERAL RIGHTS ACQUISITION (GOLD)	AC	\$3,541	134	\$474,540
TOTAL PROJECT ROW AND MINERAL RIGHTS COSTS				\$3,245,364

Table 2 - Summary of example OPCC (rounded to \$1,000).

COST ITEM DESCRIPTION	BASE OPCC W/ CONT
PRIME CONSTRUCTION COSTS	\$33,768,000
NATIVE PLANT NURSERY COSTS	\$1,245,000
TOTAL CONSTRUCTION COSTS	\$35,013,000

Table 3 - Example project implementation costs shown as a percentage of the OPCC.

COST ITEM DESCRIPTION	PERCENTAGE OF OPCC
CONSTRUCTION MANAGEMENT (Owner)	8.00%
PROCUREMENT	4.00%
ENGINEERING/CONSULTING	10.00%
PERMITTING	6.00%
PROJECT ADMINISTRATION	10.00%
TOTAL PERCENTAGE OF OPCC	38.00%

Table 4 - Example project implementation and total project costs.

COST ITEM DESCRIPTION	
TOTAL PROJECT IMPLEMENTATION COSTS (from Table 3)	\$13,304,940
TOTAL CONSTRUCTION COSTS (from Table 2)	\$35,013,000
TOTAL ROW AND MINERAL RIGHTS COSTS (from Table 1)	\$3,245,364
TOTAL PROJECT COSTS	\$51,563,304
TOTAL PROJECT ACREAGE (ACRES)	134

Table 5 - Project implementation and total project costs shown as cost per acre of floodplain restored.

UNIT COST DESCRIPTION	LOW (-20%)	BASE (PER ACRE)	HIGH (+40%)
UNIT COST OF CONSTRUCTION	\$209,600	\$262,000	\$366,800
UNIT COST INCLUDING ALL PROJECT COSTS	\$308,000	\$385,000	\$539,000

**TURLOCK AND MODESTO IRRIGATION DISTRICTS
PRELIMINARY PROJECT CONSTRUCTION COSTS**

EXAMPLE WARNER-DEARDORF-MJRUDDY REACH - LOWER TUOLUMNE RIVER

PRIME CONSTRUCTION CONTRACTOR COSTS			WD-MJ Ruddy Combined Reaches		
			Area	134	acres
			Imp. Length	2.8	miles
Item	Description	Unit	Unit Price	Quantity	Item Price
1	Care of water (trenching, shoring, bypass channel)	LS	\$ 75,000	1	\$ 75,000
2	TOTAL PROJECT ROW AND MINERAL RIGHTS COSTS	ACRE	\$ 3,500	48	\$ 167,584
3	Cobble Imported Fill (based on La Grange Site)	CY	\$ 25	474,627	\$ 11,865,675
4	Imported Topsoil Fill (based on Santa Fe Agg Site)	CY	\$ 10	160,025	\$ 1,600,250
5	Dike Embankment (Imported Cobble)	CY	\$ 25	135,258	\$ 3,381,450
6	Dike Embankment (Imported Soil)	CY	\$ 10	72,129	\$ 721,290
7	Onsite Cut/Fill	CY	\$ 8	491,655	\$ 3,933,240
8	Spawning Gravel	CY	\$ 35	19,496	\$ 682,360
9	Construct Waterside Access Ramp	EA	\$ 24,000	4	\$ 96,000
10	Construct Landside Access Ramp	EA	\$ 6,000	1	\$ 6,000
11	Equalization Saddles (50-Feet)	EA	\$ 76,300	1	\$ 76,300
12	Rock Filled Flow Channel (Cobble Material)	LS	\$ 25,000	2	\$ 50,000
13	Place 1/2 Ton Rock Slope Protection	TON	\$ 60	440	\$ 26,400
14	Place 1/4 Ton Rock Slope Protection	TON	\$ 60	2,520	\$ 151,200
15	Flatcar Bridge	LS	\$ 283,500	1	\$ 283,500
16	Construct Sante Fe Agg Bridge Approach Road	CY	\$ 25	200	\$ 5,000
17	Construct Temporary Haul Road around Bridge Const.	LS	\$ 20,000	1	\$ 20,000
18	Construct Monitoring Survey Benchmarks	EA	\$ 750	16	\$ 12,000
19	Remove Miscellaneous Debris from Stream	LS	\$ 15,000	2	\$ 30,000
20	Protect Existing Trees in Place (Misc. Costs)	EA	\$ 300	27	\$ 8,100
21	Tree Removal	EA	\$ 800	39	\$ 31,200
22	Protect Existing Irrigation Piping In Place	LS	\$ 2,000	2	\$ 4,000
23	Scarify Existing Grade Terraces	ACRE	\$ 600	16	\$ 9,600
24	Slope Vegetated Rock Slope Protection	SY	\$ 80	1,889	\$ 151,120
25	Construct New Pipe Gate	EA	\$ 4,000	2	\$ 8,000
26	Remove Existing Barbed Wire Fencing	LF	\$ 5	200	\$ 1,000
27	Construct Barbed Wire Fencing	LF	\$ 12	400	\$ 4,800
Rounded Subtotal					\$ 23,401,070
General Contractor Indirect Costs					
	Mobilization	Percent	3.00%		\$ 702,032.10
	General Conditions	Percent	5.00%		\$ 1,170,053.50
	Insurance/All Risk	Percent	1.50%		\$ 351,016.05
	Bonds	Percent	1.50%		\$ 351,016.05
Rounded Subtotal					\$ 2,574,118
Total Construction Costs					\$ 25,975,188
	Contingency	Percent	30.00%		\$ 7,792,556
TOTAL PRIME CONTRACTOR CONSTRUCTION COSTS WITH CONTINGENCY					\$ 33,768,000

**TURLOCK AND MODESTO IRRIGATION DISTRICTS
PRELIMINARY PROJECT CONSTRUCTION COSTS**

EXAMPLE WARNER-DEARDORF-MJRUDDY REACH - LOWER TUOLUMNE RIVER

NATIVE PLANT NURSERY CONSTRUCTION COSTS			WD-MJ Ruddy Combined Reaches		
Item	Description	Unit	Unit Price	Quantity	Item Price
1	Soil Moisture Station	EA	\$ 600	9	\$ 5,400
2	Planting Module Type 1 - Rush	EA	\$ 230	90	\$ 20,700
3	Planting Module Type 2 - Sedge	EA	\$ 115	54	\$ 6,210
4	Planting Module Type 3 - Mugwort	EA	\$ 65	42	\$ 2,730
5	Planting Module Type 4 - Wild Rose	EA	\$ 156	73	\$ 11,388
6	Planting Module Type 5 - Blackberry	EA	\$ 156	41	\$ 6,396
7	Planting Module Type 7 - Elderberry	EA	\$ 138	71	\$ 9,763
8	Planting Module Type 8 - Arroyo Willow	EA	\$ 207	52	\$ 10,764
9	Planting Module Type 10 - Button Bush	EA	\$ 185	17	\$ 3,145
10	Planting Module Type 11 - Alder	EA	\$ 207	8	\$ 1,656
11	Planting Module Type 12 - Red Willow	EA	\$ 252	51	\$ 12,852
12	Planting Module Type 13 - Shining Willow	EA	\$ 271	37	\$ 10,027
13	Planting Module Type 14 - Black Willow	EA	\$ 271	78	\$ 21,138
14	Planting Module Type 15 - Mixed Willow	EA	\$ 261	58	\$ 15,138
15	Planting Module Type 16 - Cottonwood	EA	\$ 261	154	\$ 40,194
16	Planting Module Type 17 - Mixed Cottonwood	EA	\$ 261	251	\$ 65,511
17	Planting Module Type 18 - Ash	EA	\$ 280	292	\$ 81,833
18	Planting Module Type 19 - Western Sycamore	EA	\$ 261	65	\$ 16,965
19	Planting Module Type 20 - Mixed Valley Oak	EA	\$ 261	626	\$ 163,386
20	Planting - Infill Cottonwood	ACRE	\$ 690.00	1.5	\$ 1,035
21	Planting - Infill Valley Oak	ACRE	\$ 690.00	1.4	\$ 966
22	Hydroseeding (Native Grass Species)	ACRE	\$ 2,000	12.58	\$ 25,160
23	Furnish and Install Beaver Protection	EA	\$ 35	1635.48	\$ 57,242
24	Irrigation and Maintenance (2 Years Post Construction)	LS	\$ 90,000	2	\$ 180,000
25	Monitoring and reporting	EA	\$ 25,000	5	\$ 125,000
	Rounded Subtotal				\$ 895,000
General Contractor Indirect Costs					
	Mobilization	Percent	4.00%		\$ 35,800.00
	Insurance	Percent	1.50%		\$ 13,425.00
	Bonds	Percent	1.50%		\$ 13,425.00
				Rounded Subtotal	\$ 62,650
	Total Construction Costs				\$ 957,650
	Design and Construction Contingency	Percent	30.00%		\$ 287,295
TOTAL NATIVE PLANT NURSERY COSTS					\$ 1,245,000
TOTAL CONSTRUCTION AND NATIVE PLANT NURSERY COSTS					\$ 35,013,000

SECTION 7: DOCUMENTATION

[United States Code Annotated](#)

[Title 33. Navigation and Navigable Waters \(Refs & Annos\)](#)

[Chapter 26. Water Pollution Prevention and Control \(Refs & Annos\)](#)

[Subchapter IV. Permits and Licenses \(Refs & Annos\)](#)

33 U.S.C.A. § 1341

§ 1341. Certification

[Currentness](#)

(a) Compliance with applicable requirements; application; procedures; license suspension

(1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of [sections 1311](#), [1312](#), [1313](#), [1316](#), and [1317](#) of this title. In the case of any such activity for which there is not an applicable effluent limitation or other limitation under [sections 1311\(b\)](#) and [1312](#) of this title, and there is not an applicable standard under [sections 1316](#) and [1317](#) of this title, the State shall so certify, except that any such certification shall not be deemed to satisfy [section 1371\(c\)](#) of this title. Such State or interstate agency shall establish procedures for public notice in the case of all applications for certification by it and, to the extent it deems appropriate, procedures for public hearings in connection with specific applications. In any case where a State or interstate agency has no authority to give such a certification, such certification shall be from the Administrator. If the State, interstate agency, or Administrator, as the case may be, fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. No license or permit shall be granted if certification has been denied by the State, interstate agency, or the Administrator, as the case may be.

(2) Upon receipt of such application and certification the licensing or permitting agency shall immediately notify the Administrator of such application and certification. Whenever such a discharge may affect, as determined by the Administrator, the quality of the waters of any other State, the Administrator within thirty days of the date of notice of application for such Federal license or permit shall so notify such other State, the licensing or permitting agency, and the applicant. If, within sixty days after receipt of such notification, such other State determines that such discharge will affect the quality of its waters so as to violate any water quality requirements in such State, and within such sixty-day period notifies the Administrator and the licensing or permitting agency in writing of its objection to the issuance of such license or permit and requests a public hearing on such objection, the licensing or permitting agency shall hold such a hearing. The Administrator shall at such hearing submit his evaluation and recommendations with respect to any such objection to the licensing or permitting agency. Such agency, based upon the recommendations of such State, the Administrator, and upon any additional evidence, if any, presented to the agency at the hearing, shall condition such license or permit in such manner as may be necessary to insure compliance with applicable water quality requirements. If the imposition of conditions cannot insure such compliance such agency shall not issue such license or permit.

(3) The certification obtained pursuant to paragraph (1) of this subsection with respect to the construction of any facility shall fulfill the requirements of this subsection with respect to certification in connection with any other Federal license or permit required for the operation of such facility unless, after notice to the certifying State, agency, or Administrator, as the case may be, which shall be given by the Federal agency to whom application is made for such operating license or permit, the State, or if appropriate, the interstate agency or the Administrator, notifies such agency within sixty days after receipt of such notice that there is no longer reasonable assurance that there will be compliance with the applicable provisions of [sections 1311, 1312, 1313, 1316, and 1317](#) of this title because of changes since the construction license or permit certification was issued in (A) the construction or operation of the facility, (B) the characteristics of the waters into which such discharge is made, (C) the water quality criteria applicable to such waters or (D) applicable effluent limitations or other requirements. This paragraph shall be inapplicable in any case where the applicant for such operating license or permit has failed to provide the certifying State, or, if appropriate, the interstate agency or the Administrator, with notice of any proposed changes in the construction or operation of the facility with respect to which a construction license or permit has been granted, which changes may result in violation of [section 1311, 1312, 1313, 1316, or 1317](#) of this title.

(4) Prior to the initial operation of any federally licensed or permitted facility or activity which may result in any discharge into the navigable waters and with respect to which a certification has been obtained pursuant to paragraph (1) of this subsection, which facility or activity is not subject to a Federal operating license or permit, the licensee or permittee shall provide an opportunity for such certifying State, or, if appropriate, the interstate agency or the Administrator to review the manner in which the facility or activity shall be operated or conducted for the purposes of assuring that applicable effluent limitations or other limitations or other applicable water quality requirements will not be violated. Upon notification by the certifying State, or if appropriate, the interstate agency or the Administrator that the operation of any such federally licensed or permitted facility or activity will violate applicable effluent limitations or other limitations or other water quality requirements such Federal agency may, after public hearing, suspend such license or permit. If such license or permit is suspended, it shall remain suspended until notification is received from the certifying State, agency, or Administrator, as the case may be, that there is reasonable assurance that such facility or activity will not violate the applicable provisions of [section 1311, 1312, 1313, 1316, or 1317](#) of this title.

(5) Any Federal license or permit with respect to which a certification has been obtained under paragraph (1) of this subsection may be suspended or revoked by the Federal agency issuing such license or permit upon the entering of a judgment under this chapter that such facility or activity has been operated in violation of the applicable provisions of [section 1311, 1312, 1313, 1316, or 1317](#) of this title.

(6) Except with respect to a permit issued under [section 1342](#) of this title, in any case where actual construction of a facility has been lawfully commenced prior to April 3, 1970, no certification shall be required under this subsection for a license or permit issued after April 3, 1970, to operate such facility, except that any such license or permit issued without certification shall terminate April 3, 1973, unless prior to such termination date the person having such license or permit submits to the Federal agency which issued such license or permit a certification and otherwise meets the requirements of this section.

(b) Compliance with other provisions of law setting applicable water quality requirements

Nothing in this section shall be construed to limit the authority of any department or agency pursuant to any other provision of law to require compliance with any applicable water quality requirements. The Administrator shall, upon the request of any Federal department or agency, or State or interstate agency, or applicant, provide, for the purpose of this section, any relevant information on applicable effluent limitations, or other limitations, standards, regulations, or requirements, or water quality criteria, and shall, when requested by any such department or agency or State or interstate agency, or applicant, comment on any methods to comply with such limitations, standards, regulations, requirements, or criteria.

(c) Authority of Secretary of the Army to permit use of spoil disposal areas by Federal licensees or permittees

In order to implement the provisions of this section, the Secretary of the Army, acting through the Chief of Engineers, is authorized, if he deems it to be in the public interest, to permit the use of spoil disposal areas under his jurisdiction by Federal licensees or permittees, and to make an appropriate charge for such use. Moneys received from such licensees or permittees shall be deposited in the Treasury as miscellaneous receipts.

(d) Limitations and monitoring requirements of certification

Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under [section 1311](#) or [1312](#) of this title, standard of performance under [section 1316](#) of this title, or prohibition, effluent standard, or pretreatment standard under [section 1317](#) of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

CREDIT(S)

(June 30, 1948, c. 758, Title IV, § 401, as added [Pub.L. 92-500](#), § 2, Oct. 18, 1972, 86 Stat. 877; amended [Pub.L. 95-217](#), §§ 61(b), 64, Dec. 27, 1977, 91 Stat. 1598, 1599.)

33 U.S.C.A. § 1341, 33 USCA § 1341
Current through P.L. 117-80.

[United States Code Annotated](#)

[Title 33. Navigation and Navigable Waters \(Refs & Annos\)](#)

[Chapter 26. Water Pollution Prevention and Control \(Refs & Annos\)](#)

[Subchapter IV. Permits and Licenses \(Refs & Annos\)](#)

33 U.S.C.A. § 1344

§ 1344. Permits for dredged or fill material

[Currentness](#)

(a) Discharge into navigable waters at specified disposal sites

The Secretary may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites. Not later than the fifteenth day after the date an applicant submits all the information required to complete an application for a permit under this subsection, the Secretary shall publish the notice required by this subsection.

(b) Specification for disposal sites

Subject to subsection (c) of this section, each such disposal site shall be specified for each such permit by the Secretary (1) through the application of guidelines developed by the Administrator, in conjunction with the Secretary, which guidelines shall be based upon criteria comparable to the criteria applicable to the territorial seas, the contiguous zone, and the ocean under [section 1343\(c\)](#) of this title, and (2) in any case where such guidelines under clause (1) alone would prohibit the specification of a site, through the application additionally of the economic impact of the site on navigation and anchorage.

(c) Denial or restriction of use of defined areas as disposal sites

The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. Before making such determination, the Administrator shall consult with the Secretary. The Administrator shall set forth in writing and make public his findings and his reasons for making any determination under this subsection.

(d) “Secretary” defined

The term “Secretary” as used in this section means the Secretary of the Army, acting through the Chief of Engineers.

(e) General permits on State, regional, or nationwide basis

(1) In carrying out his functions relating to the discharge of dredged or fill material under this section, the Secretary may, after notice and opportunity for public hearing, issue general permits on a State, regional, or nationwide basis for any category of activities involving discharges of dredged or fill material if the Secretary determines that the activities in such category are similar in nature, will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment. Any general permit issued under this subsection shall (A) be based on the guidelines described in subsection (b)(1) of this section, and (B) set forth the requirements and standards which shall apply to any activity authorized by such general permit.

(2) No general permit issued under this subsection shall be for a period of more than five years after the date of its issuance and such general permit may be revoked or modified by the Secretary if, after opportunity for public hearing, the Secretary determines that the activities authorized by such general permit have an adverse impact on the environment or such activities are more appropriately authorized by individual permits.

(f) Non-prohibited discharge of dredged or fill material

(1) Except as provided in paragraph (2) of this subsection, the discharge of dredged or fill material--

(A) from normal farming, silviculture, and ranching activities such as plowing, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices;

(B) for the purpose of maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments or approaches, and transportation structures;

(C) for the purpose of construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance of drainage ditches;

(D) for the purpose of construction of temporary sedimentation basins on a construction site which does not include placement of fill material into the navigable waters;

(E) for the purpose of construction or maintenance of farm roads or forest roads, or temporary roads for moving mining equipment, where such roads are constructed and maintained, in accordance with best management practices, to assure that flow and circulation patterns and chemical and biological characteristics of the navigable waters are not impaired, that the reach of the navigable waters is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized;

(F) resulting from any activity with respect to which a State has an approved program under [section 1288\(b\)\(4\)](#) of this title which meets the requirements of subparagraphs (B) and (C) of such section,

is not prohibited by or otherwise subject to regulation under this section or [section 1311\(a\)](#) or [1342](#) of this title (except for effluent standards or prohibitions under [section 1317](#) of this title).

(2) Any discharge of dredged or fill material into the navigable waters incidental to any activity having as its purpose bringing an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation of navigable waters may be impaired or the reach of such waters be reduced, shall be required to have a permit under this section.

(g) State administration

(1) The Governor of any State desiring to administer its own individual and general permit program for the discharge of dredged or fill material into the navigable waters (other than those waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce shoreward to their ordinary high water mark, including all waters which are subject to the ebb and flow of the tide shoreward to their mean high water mark, or mean higher high water mark on the west coast, including wetlands adjacent thereto) within its jurisdiction may submit to the Administrator a full and complete description of the program it proposes to establish and administer under State law or under an interstate compact. In addition, such State shall submit a statement from the attorney general (or the attorney for those State agencies which have independent legal counsel), or from the chief legal officer in the case of an interstate agency, that the laws of such State, or the interstate compact, as the case may be, provide adequate authority to carry out the described program.

(2) Not later than the tenth day after the date of the receipt of the program and statement submitted by any State under paragraph (1) of this subsection, the Administrator shall provide copies of such program and statement to the Secretary and the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service.

(3) Not later than the ninetieth day after the date of the receipt by the Administrator of the program and statement submitted by any State, under paragraph (1) of this subsection, the Secretary and the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service, shall submit any comments with respect to such program and statement to the Administrator in writing.

(h) Determination of State's authority to issue permits under State program; approval; notification; transfers to State program

(1) Not later than the one-hundred-twentieth day after the date of the receipt by the Administrator of a program and statement submitted by any State under paragraph (1) of this subsection, the Administrator shall determine, taking into account any comments submitted by the Secretary and the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service, pursuant to subsection (g) of this section, whether such State has the following authority with respect to the issuance of permits pursuant to such program:

(A) To issue permits which--

(i) apply, and assure compliance with, any applicable requirements of this section, including, but not limited to, the guidelines established under subsection (b)(1) of this section, and [sections 1317](#) and [1343](#) of this title;

(ii) are for fixed terms not exceeding five years; and

(iii) can be terminated or modified for cause including, but not limited to, the following:

(I) violation of any condition of the permit;

(II) obtaining a permit by misrepresentation, or failure to disclose fully all relevant facts;

(III) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

(B) To issue permits which apply, and assure compliance with, all applicable requirements of [section 1318](#) of this title, or to inspect, monitor, enter, and require reports to at least the same extent as required in [section 1318](#) of this title.

(C) To assure that the public, and any other State the waters of which may be affected, receive notice of each application for a permit and to provide an opportunity for public hearing before a ruling on each such application.

(D) To assure that the Administrator receives notice of each application (including a copy thereof) for a permit.

(E) To assure that any State (other than the permitting State), whose waters may be affected by the issuance of a permit may submit written recommendations to the permitting State (and the Administrator) with respect to any permit application and, if any part of such written recommendations are not accepted by the permitting State, that the permitting State will notify such affected State (and the Administrator) in writing of its failure to so accept such recommendations together with its reasons for so doing.

(F) To assure that no permit will be issued if, in the judgment of the Secretary, after consultation with the Secretary of the department in which the Coast Guard is operating, anchorage and navigation of any of the navigable waters would be substantially impaired thereby.

(G) To abate violations of the permit or the permit program, including civil and criminal penalties and other ways and means of enforcement.

(H) To assure continued coordination with Federal and Federal-State water-related planning and review processes.

(2) If, with respect to a State program submitted under subsection (g)(1) of this section, the Administrator determines that such State--

(A) has the authority set forth in paragraph (1) of this subsection, the Administrator shall approve the program and so notify (i) such State and (ii) the Secretary, who upon subsequent notification from such State that it is administering such program, shall suspend the issuance of permits under subsections (a) and (e) of this section for activities with respect to which a permit may be issued pursuant to such State program; or

(B) does not have the authority set forth in paragraph (1) of this subsection, the Administrator shall so notify such State, which notification shall also describe the revisions or modifications necessary so that such State may resubmit such program for a determination by the Administrator under this subsection.

(3) If the Administrator fails to make a determination with respect to any program submitted by a State under subsection (g) (1) of this section within one-hundred-twenty days after the date of the receipt of such program, such program shall be deemed approved pursuant to paragraph (2)(A) of this subsection and the Administrator shall so notify such State and the Secretary who, upon subsequent notification from such State that it is administering such program, shall suspend the issuance of permits under subsection (a) and (e) of this section for activities with respect to which a permit may be issued by such State.

(4) After the Secretary receives notification from the Administrator under paragraph (2) or (3) of this subsection that a State permit program has been approved, the Secretary shall transfer any applications for permits pending before the Secretary for activities with respect to which a permit may be issued pursuant to such State program to such State for appropriate action.

(5) Upon notification from a State with a permit program approved under this subsection that such State intends to administer and enforce the terms and conditions of a general permit issued by the Secretary under subsection (e) of this section with respect to activities in such State to which such general permit applies, the Secretary shall suspend the administration and enforcement of such general permit with respect to such activities.

(i) Withdrawal of approval

Whenever the Administrator determines after public hearing that a State is not administering a program approved under subsection (h)(2)(A) of this section, in accordance with this section, including, but not limited to, the guidelines established under subsection (b)(1) of this section, the Administrator shall so notify the State, and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days after the date of the receipt of such notification, the Administrator shall (1) withdraw approval of such program until the Administrator determines such corrective action has been taken, and (2) notify the Secretary that the Secretary shall resume the program for the issuance of permits under subsections (a) and (e) of this section for activities with respect to which the State was issuing permits and that such authority of the Secretary shall continue in effect until such time as the Administrator makes the determination described in clause (1) of this subsection and such State again has an approved program.

(j) Copies of applications for State permits and proposed general permits to be transmitted to Administrator

Each State which is administering a permit program pursuant to this section shall transmit to the Administrator (1) a copy of each permit application received by such State and provide notice to the Administrator of every action related to the consideration of such permit application, including each permit proposed to be issued by such State, and (2) a copy of each proposed general permit which such State intends to issue. Not later than the tenth day after the date of the receipt of such permit application or such proposed general permit, the Administrator shall provide copies of such permit application or such proposed general permit to the Secretary and the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service. If the Administrator intends to provide written comments to such State with respect to such permit application or such proposed general permit, he shall so notify such State not later than the thirtieth day after the date of the receipt of such application or such proposed general permit and provide such written comments to such State, after consideration of any comments made in writing with respect to such application or such proposed general permit by the Secretary and the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service, not later than the ninetieth day after the date of such receipt. If such State is so notified by the Administrator, it shall not issue the proposed permit until after the receipt of such comments

from the Administrator, or after such ninetieth day, whichever first occurs. Such State shall not issue such proposed permit after such ninetieth day if it has received such written comments in which the Administrator objects (A) to the issuance of such proposed permit and such proposed permit is one that has been submitted to the Administrator pursuant to subsection (h)(1)(E), or (B) to the issuance of such proposed permit as being outside the requirements of this section, including, but not limited to, the guidelines developed under subsection (b)(1) of this section unless it modifies such proposed permit in accordance with such comments. Whenever the Administrator objects to the issuance of a permit under the preceding sentence such written objection shall contain a statement of the reasons for such objection and the conditions which such permit would include if it were issued by the Administrator. In any case where the Administrator objects to the issuance of a permit, on request of the State, a public hearing shall be held by the Administrator on such objection. If the State does not resubmit such permit revised to meet such objection within 30 days after completion of the hearing or, if no hearing is requested within 90 days after the date of such objection, the Secretary may issue the permit pursuant to subsection (a) or (e) of this section, as the case may be, for such source in accordance with the guidelines and requirements of this chapter.

(k) Waiver

In accordance with guidelines promulgated pursuant to [subsection \(i\)\(2\) of section 1314](#) of this title, the Administrator is authorized to waive the requirements of subsection (j) of this section at the time of the approval of a program pursuant to subsection (h)(2)(A) of this section for any category (including any class, type, or size within such category) of discharge within the State submitting such program.

(l) Categories of discharges not subject to requirements

The Administrator shall promulgate regulations establishing categories of discharges which he determines shall not be subject to the requirements of subsection (j) of this section in any State with a program approved pursuant to subsection (h)(2)(A) of this section. The Administrator may distinguish among classes, types, and sizes within any category of discharges.

(m) Comments on permit applications or proposed general permits by Secretary of the Interior acting through Director of United States Fish and Wildlife Service

Not later than the ninetieth day after the date on which the Secretary notifies the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service that (1) an application for a permit under subsection (a) of this section has been received by the Secretary, or (2) the Secretary proposes to issue a general permit under subsection (e) of this section, the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service, shall submit any comments with respect to such application or such proposed general permit in writing to the Secretary.

(n) Enforcement authority not limited

Nothing in this section shall be construed to limit the authority of the Administrator to take action pursuant to [section 1319](#) of this title.

(o) Public availability of permits and permit applications

A copy of each permit application and each permit issued under this section shall be available to the public. Such permit application or portion thereof, shall further be available on request for the purpose of reproduction.

(p) Compliance

Compliance with a permit issued pursuant to this section, including any activity carried out pursuant to a general permit issued under this section, shall be deemed compliance, for purposes of [sections 1319](#) and [1365](#) of this title, with [sections 1311](#), [1317](#), and [1343](#) of this title.

(q) Minimization of duplication, needless paperwork, and delays in issuance; agreements

Not later than the one-hundred-eightieth day after December 27, 1977, the Secretary shall enter into agreements with the Administrator, the Secretaries of the Departments of Agriculture, Commerce, Interior, and Transportation, and the heads of other appropriate Federal agencies to minimize, to the maximum extent practicable, duplication, needless paperwork, and delays in the issuance of permits under this section. Such agreements shall be developed to assure that, to the maximum extent practicable, a decision with respect to an application for a permit under subsection (a) of this section will be made not later than the ninetieth day after the date the notice for such application is published under subsection (a) of this section.

(r) Federal projects specifically authorized by Congress

The discharge of dredged or fill material as part of the construction of a Federal project specifically authorized by Congress, whether prior to or on or after December 27, 1977, is not prohibited by or otherwise subject to regulation under this section, or a State program approved under this section, or [section 1311\(a\)](#) or [1342](#) of this title (except for effluent standards or prohibitions under [section 1317](#) of this title), if information on the effects of such discharge, including consideration of the guidelines developed under subsection (b)(1) of this section, is included in an environmental impact statement for such project pursuant to the National Environmental Policy Act of 1969 and such environmental impact statement has been submitted to Congress before the actual discharge of dredged or fill material in connection with the construction of such project and prior to either authorization of such project or an appropriation of funds for such construction.

(s) Violation of permits

(1) Whenever on the basis of any information available to him the Secretary finds that any person is in violation of any condition or limitation set forth in a permit issued by the Secretary under this section, the Secretary shall issue an order requiring such person to comply with such condition or limitation, or the Secretary shall bring a civil action in accordance with paragraph (3) of this subsection.

(2) A copy of any order issued under this subsection shall be sent immediately by the Secretary to the State in which the violation occurs and other affected States. Any order issued under this subsection shall be by personal service and shall state with reasonable specificity the nature of the violation, specify a time for compliance, not to exceed thirty days, which the Secretary determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. In any case in which an order under this subsection is issued to a corporation, a copy of such order shall be served on any appropriate corporate officers.

(3) The Secretary is authorized to commence a civil action for appropriate relief, including a permanent or temporary injunction for any violation for which he is authorized to issue a compliance order under paragraph (1) of this subsection. Any action under this paragraph may be brought in the district court of the United States for the district in which the defendant is located or

resides or is doing business, and such court shall have jurisdiction to restrain such violation and to require compliance. Notice of the commencement of such acton¹ shall be given immediately to the appropriate State.

(4) Any person who violates any condition or limitation in a permit issued by the Secretary under this section, and any person who violates any order issued by the Secretary under paragraph (1) of this subsection, shall be subject to a civil penalty not to exceed \$25,000 per day for each violation. In determining the amount of a civil penalty the court shall consider the seriousness of the violation or violations, the economic benefit (if any) resulting from the violation, any history of such violations, any good-faith efforts to comply with the applicable requirements, the economic impact of the penalty on the violator, and such other matters as justice may require.

(t) Navigable waters within State jurisdiction

Nothing in this section shall preclude or deny the right of any State or interstate agency to control the discharge of dredged or fill material in any portion of the navigable waters within the jurisdiction of such State, including any activity of any Federal agency, and each such agency shall comply with such State or interstate requirements both substantive and procedural to control the discharge of dredged or fill material to the same extent that any person is subject to such requirements. This section shall not be construed as affecting or impairing the authority of the Secretary to maintain navigation.

CREDIT(S)

(June 30, 1948, c. 758, Title IV, § 404, as added [Pub.L. 92-500](#), § 2, Oct. 18, 1972, 86 Stat. 884; amended [Pub.L. 95-217](#), § 67(a), (b), Dec. 27, 1977, 91 Stat. 1600; [Pub.L. 100-4, Title III, § 313\(d\)](#), Feb. 4, 1987, 101 Stat. 45.)

Footnotes

¹ So in original. Probably should be “action”.

33 U.S.C.A. § 1344, 33 USCA § 1344

Current through P.L. 117-80.

186 Cal. 183, 198 P. 1060, 17 A.L.R. 72

TURLOCK IRRIGATION DISTRICT
(a Public Corporation), Respondent,

v.

JAMES G. WHITE, Tax
Collector, etc., et al., Appellants.

Supreme Court of California.

Sac. No. 2935.

June 15, 1921.

[1]

TAXATION—LANDS OF MUNICIPAL CORPORATIONS
OUTSIDE CORPORATE BOUNDARIES— EXCEPTION
FROM EXEMPTION—INAPPLICABILITY OF
CONSTITUTIONAL AMENDMENT TO IRRIGATION
DISTRICTS.

An irrigation district organized under the laws of the state is not a municipal corporation within the meaning of such term as used in the amendment of 1914 to section 1 of article XIII of the constitution, which excepts from exemption for taxation such lands and improvements belonging to a municipal corporation located outside of the municipality as were subject to taxation at the time of their acquisition.

[2]

IRRIGATION DISTRICT—NATURE OF.

An irrigation district is not a municipal corporation, but a public corporation for municipal purposes.

[3]

TAXATION—EXEMPTION OF IRRIGATION DISTRICTS
PRIOR TO CONSTITUTIONAL AMENDMENT—
PROPERTY OF THE STATE.

Under section 1 of article XIII of the constitution before its amendment in 1914, irrigation districts were exempted from taxation under the express exemption of the property of the state, and not under the special exemption of property of municipal corporations.

APPEAL from a judgment of the Superior Court of Tuolumne County. G. W. Nicol, Judge. Affirmed.

The facts are stated in the opinion of the court.

*183 Rowan Hardin for Appellants.

P. H. Griffin and Griffin, Boone & Boone for Respondent.

THE COURT.

This appeal is by defendants from a judgment enjoining them from attempting to collect certain taxes levied by the defendant county against lands of the plaintiff.

The plaintiff, an irrigation district, whose corporate boundaries are wholly within the counties of Merced and Stanislaus, is the owner of land situated in the county of Tuolumne. It is the taxation of this land by the county of Tuolumne that is sought to be enjoined.

*184 Authority to levy and collect such tax is claimed by the defendant county under the amendment of 1914 to section 1 of article XIII of the state constitution. As this section of the constitution previously stood, it provided that no property belonging to the "United States, this state, or to any county or municipal corporation within this state" shall be subject to taxation. The amendment excepts from such exemption "such lands and the improvements thereon located outside of the county, city and county, or municipal corporation owning same as were subject to taxation at the time of the acquisition of the same by said county, city and county, or municipal corporation."

The entire controversy in this case is as to whether or not an irrigation district, organized under the laws of California, is a "municipal corporation" within the meaning of this section of the constitution.

This amendment to the constitution (article XIII, section 1) was submitted by the legislature to the people in November, 1914. A printed argument in favor of its adoption accompanied the publication of the proposed amendment, a copy of such argument being mailed to each voter in the state as required by law. (Pol. Code, secs. 1195, 1195a, 1195b.) This argument in favor of the proposed amendment clearly explains its purpose, and the voters in acting upon the amendment must be deemed to have considered such reasons in interpreting the general term "municipal corporation" used in the proposed amendment. The argument, in part, was as follows:

... This amendment does not seek to hinder in any way the development of enterprises by and for the benefit of counties or municipalities, in any part of the state, but to protect from loss those counties into which they may enter for such

purposes. A concrete illustration is afforded by the counties of Tuolumne, Mono, and Inyo. In furtherance of obtaining a large water supply, for municipal and other uses, the purchase by San Francisco in Tuolumne County aggregated over one million dollars' worth of property. Los Angeles, in Owens River valley, acquired by purchase over seventy five thousand acres of land, amounting to over one-sixth of the assessed value, and more than one-fourth of the of the located agricultural land of the county. The city of Los Angeles has acquired large holdings in Mono County. Before *185 such acquisition the area was taxpaying property. Since the acquisition in Inyo County the city of Los Angeles has continued to pay taxes, as a matter of justice, but its payments are accompanied by protests, in order to preserve to it the right of refusal to pay which many contend that it has under the constitutional provision as it stands at present, and that it might sustain in case of legal contest. While not abandoning any right from a technical standpoint, the city recognizes the justice of the contention upon which this amendment is based.

The city of San Francisco refuses absolutely to pay one dollar in taxes in Tuolumne County on their one million dollars' worth of property, contending they are exempt from such a tax by a constitutional provision....

It would be possible for an acquiring city or county to virtually destroy the government of a small county by acquiring, for one purpose or another, for municipal use, the substance of its revenue-yielding property. That such a result would be improbable and extreme does not alter the fact of its possibility. In the Inyo county instance, refusal by the city of Los Angeles to pay taxes upon real estate which has heretofore borne its due share of the expense of the county government would be a serious matter, either curtailing the county's welfare or imposing a heavier burden on other property. With such a result possible to a fractional extent, it would be equally possible to the fullest extent that the investing city might see fit to go.

It is to remedy such a condition that this amendment was proposed. Uncertainty on the matter should be removed by a legal assurance that while natural resources within one county may be directly used for the upbuilding of another, lands or other property already upon the invaded county's tax-roll shall continue to bear its share of maintaining the local government.

"It is hoped, therefore, that the justice of this amendment will insure for it the approval of the people of the state."

It is apparent that the term "municipal corporation" was thus presented to the people as synonymous with such corporations as Los Angeles and San Francisco, that is to say, as municipal corporations in the strict technical sense.

*186 In their brief appellants say: "To start with it will be admitted that by the late decisions of the supreme court said decisions have by an exceedingly fine analysis, determined that, as a technical legal proposition, an irrigation district is an arm of the state government or a public corporation and not a municipal corporation as the term municipal corporation is technically known." However, appellants' contention is that the term "municipal corporation," in its popular acceptance, includes irrigation district and consequently this popular meaning is to be applied rather than a technical one. The rule appellants rely on is thus stated in a recent case (*City of Pasadena v. Railroad Commission*, 183 Cal. 526, [10 A. L. R. 1425, 192 Pac. 25]): "... The constitution, 'unlike the acts of our legislature, owes its whole force and authority to its ratification by the people; and they judged of it by the meaning apparent on its face according to the general use of the words employed, where they do not appear to have been used in a legal or technical sense.' (*Miller v. Dunn*, 72 Cal. 465, [1 Am. St. Rep. 67, 14 Pac. 27, 28].) Where a word has a popular and also a technical meaning, 'the courts will accord to it its popular meaning, unless the very nature of the subject indicates or the context suggests that it is employed in its technical sense.' (*Weill v. Kenfield*, 54 Cal. 113.)" Other instances of its application may be found in *Miller v. Dunn*, 72 Cal. 462-465, [1 Am. St. Rep. 67, 14 Pac. 27]; *Towle v. Matheus*, 130 Cal. 574-577, [62 Pac. 1064]; *San Pedro etc. R. Co. v. Hamilton*, 161 Cal. 610-617, [37 L. R. A. (N. S.) 686, 119 Pac. 1073]; *Perrin v. Miller*, 35 Cal. App. 129-132, [169 Pac. 426].

In support of the proposition that the term "municipal corporation" as commonly understood includes an irrigation district, the following quotation from *Merchants' Bank v. Escondido Irr. Dist.*, 144 Cal. 329, [77 Pac. 937], is cited: "... but the term *municipal*, as commonly used, is appropriately applied to all corporations exercising governmental functions, either general or special; and, indeed, this must be taken as the definition of a *public* or *municipal corporation*." Appellants also cite the following from *In re Madera Irr. Dist.*, 92 Cal. 296, 319, [27 Am. St. Rep. 106, 14 L. R. A. 755, 28 Pac. 272, 277]: "The municipal corporations which may be thus created are not limited to cities and towns. The *187 constitution makes provision in various places for municipal corporations, other than cities and towns (article XI, sections 9, 10, 12, 16).

In each of these sections provision is made with reference to the government or officers of 'county, city, town, or other public or municipal corporation,' thus clearly indicating that there may be municipal corporations other than those of a town or city."

(1) The fact that the argument submitted to the voters indicated that the term "municipal corporation" was used with technical accuracy requires that the rule relied upon by appellants be applied against them rather than in favor of their contention, because the very nature of the subject, the context of the amendment, and the manner and reason for its presentation all require that it be construed in its technical sense, and hence, it is within the exception of the rule of construction above stated. There are, however, other cogent reasons for concluding that an irrigation district is not included within the term "municipal corporation" as used in the amendment.

(2) The nature of an irrigation district has been a matter of judicial investigation and interpretation, and it has been held that such a corporation is not a municipal corporation, but a "public corporation for municipal purposes." (*Fallbrook Irr. Dist. v. Bradley*, 164 U. S. 112, [41 L. Ed. 369, 17 Sup. Ct. Rep. 56, see, also, Rose's U. S. Notes].) As to swamp-land, drainage, levee, and reclamation districts, similar to irrigation districts, it has been held that they were not municipal corporations. (*People v. Levee Dist. No. 6*, 131 Cal. 30, [63 Pac. 676]; *People v. Sacramento Drainage Dist.*, 155 Cal. 373, [103 Pac. 207]; *Swamp Land Dist. No. 150 v. Silver*, 98 Cal. 51, [32 Pac. 866]; and *Reclamation Dist. No. 70 v. Sherman*, 11 Cal. App. 399, [105 Pac. 277]. See, also, *People v. Selma Irr. Dist.*, 98 Cal. 206, 208, [32 Pac. 1047], and cases there cited.) The amendment in question must be considered to have been framed and submitted to the people with these decisions in mind, by which it was settled that such corporations were not "municipal corporations."

It is worthy of note that at the very election at which this constitutional amendment was adopted several amendments were submitted in which the term "irrigation district" was used. For illustration, section 13, article XI, was amended to prohibit the legislature from interfering with any county, *188 city, town, or municipal improvement, etc., "except that the legislature shall have power to provide for the supervision, regulation and conduct, in such manner as it may determine, of the affairs of irrigation districts, reclamation districts or drainage districts, organized or existing under any law of this state." Article XI, section 13 1/2, was amended

to include "irrigation district" in the phrase "county, city and county, city, town, *municipality*, or other public corporation," so that the phrase now reads: "Any county, city and county, city, town, municipality, irrigation district or other public corporation," etc., thus tending to impress upon the voter that the term "municipality" did not include an "irrigation district."

At the same election article XI, section 6, was amended by the people. This section restricts the power of the legislature in the formation of municipal corporations, to providing by general law for their formation, and prohibits the formation of such corporations by special statute. That section uses the term "municipal corporation" as synonymous with "cities and towns." The section reads, in part, as follows: "Sec. 6. Corporations for municipal purposes shall not be created by special laws, but the legislature shall by general laws provide for the incorporation, organization and classification, in proportion to population, of cities and towns ..."

If it were intended by the legislature and by the people to use the term "municipal corporation" with its broadest possible meaning in article XIII, section 1, *supra*, it is reasonable to suppose that language similar to that contained in article XI, section 13 1/2, *supra*, would have been employed, expressly including, as does the latter section, the term "irrigation districts."

One of the important rules of constitutional construction is thus stated by Mr. Cooley: "If a difficulty really exists, which an examination of every part of the instrument does not enable us to remove, there are certain extrinsic aids which may be resorted to, and which are more or less satisfactory in the light they afford. Among these aids is a contemplation of *the object to be accomplished or the mischief to be remedied or guarded against* by the clause in which the ambiguity is met with." (Cooley's Constitutional Limitations, p. 100. [Italics the author's.]

*189 In view of the general policy of the law and the great necessity on which that policy rests, that property held by public corporations shall not be taxed by the state, much less by other public corporations, and the plain fact that this particular amendment of the constitution was manifestly inspired by the desires of three counties to prevent Los Angeles and San Francisco from escaping taxation on property owned by them situated outside their limits for the carrying on of public water systems, together with the further fact that the constitution itself in other parts thereof describes

“municipal corporations” and provides for their creation in such a way that it cannot be doubted that none other than the ordinary municipal corporations were referred to, it is clear that irrigation districts were not made taxable by the exception contained in the amendment in question.

(3) It should be stated that it is conceded that irrigation districts were not taxable before the amendment of 1914, and are not now, unless such taxation is authorized by the amendment, but it is contended that they then were exempt because of the special exemption of the property of “municipal corporations” contained in such section, and that such irrigation districts are now taxable under the special exception in the amendment authorizing the taxation of “municipal corporations.” To the contrary, such exemption existed because of the express exemption of the property of “the state,” contained in that section and because of the implications in favor of the exemption of public property. (See Reclamation Dist. No. 551 v. County of Sacramento, 134 Cal. 477, [66 Pac. 668], and cases therein cited for a discussion of the principle applicable. See, also, Webster v. Board of Regents, 163 Cal. 705, [126 Pac. 974], and cases cited.) Reference may also be made to Central Irr. Dist. v. De Lappe, 79 Cal. 351, [21 Pac. 825], and Lindsay-Strathmore Irr. Dist. v. Superior Court, 182 Cal. 315, [187 Pac. 1056], for a discussion of the similarity of the organization of reclamation and irrigation districts.

The language quoted in the dissenting opinion from Southern Pacific Co. v. Levee Dist. No. 1, 172 Cal. 345, [156 Pac. 502], read in the light of the express statement in the opinion that such districts are not “municipal corporations,” would indicate that the court considered that the property of the district was “state property” rather than property of a *190 “municipal corporation.” The same view is taken in People v. Reclamation Dist. No. 551, 117 Cal. 114, [48 Pac. 1016], where it is said: “Certainly these districts were not municipal corporations, as that term is used in the constitution ... If these districts can be said to be corporations at all, I think they are properly called public corporations for municipal purposes. That phrase means no more than that they are state organizations for state purposes. They are certainly not municipal corporations in the strict sense.” Similarly in Re Madera Irr. Dist., 92 Cal. 296, 322, [27 Am. St. Rep. 106, 14 L. R. A. 755, 28 Pac. 272, 278], it was said: “The property held by the corporation is in trust for the public, and subject to the control of the state.”

However, the reasons presented for the conclusion reached in Southern Pacific Co. v. Levee Dist. No. 1, 172 Cal. 345, [156 Pac. 502], were so numerous and cogent that the differentiation between the various forms of taxing agencies was of little, if any, weight in arriving at the conclusion that it was intended by the amendment to prohibit all such agencies from exercising the taxing power over railroad corporations, that the decision is of little or no assistance in reaching a conclusion on the question involved here.

Judgment affirmed.

Wilbur, J., Angellotti, C. J., Shaw, J., Olney, J., Lennon, J., and Lawlor, J., concurred.

SLOANE, J., Dissenting.

I dissent. The reasoning of the majority opinion that this constitutional provision should be strictly interpreted against the tax in question because all intendments of the law are against the taxation of public property cannot apply in this instance, because here the provision involved is avowedly dealing with the taxation of public property.

Section 1 of article XIII expressly defines what classes of public property shall be exempt from taxation. It discloses, first, “that all property in the state except as otherwise in this constitution provided, not exempt under the laws of the United States, shall be taxed.” Standing alone, under the rule cited, this might not include public property, exempt under the general rule of public policy, but the section proceeds with a proviso which shows *191 that it is dealing with the subject of taxation as applied to both public and private property.

The proviso is, that various enumerated classes of property, including “such as may belong to the United States, this state, or any county, city and county, or municipal corporation within this state, shall be exempt from taxation.”

It is entirely clear that unless the property of an irrigation district is either the property of the state or of a municipal corporation, it is not exempt from taxation at all. When the legislature or constitution has made express provision for the exemption of certain classes of public property, the inference is clear that it did not intend that other classes should be exempt. (26 R. C. L., p. 291; Chicago Sanitary Dist. v. Martin, 173 Ill. 243, [64 Am. St. Rep. 110, 50 N. E. 201]; Board of Trustees v. Atlanta, 113 Ga. 883, [54 L. R. A. 806, 39 S. E. 394].) But under our constitution the matter is made

conclusive by the direction that all property not so enumerated shall be taxed.

This court was confronted with such an alternative in the case of *Reclamation Dist. v. Sacramento*, 134 Cal. 477, [66 Pac. 668]. As stated in the opinion in that case: “The role question presented is, whether property acquired by a reclamation district as necessary and indispensable to the execution of its objects is subject to taxation for state and county purposes.” Exemption was claimed for this property by the district under section 1 of article XIII of the constitution as it read prior to the amendment of 1914 exempting all property which belongs to “this state, or to any county or municipal corporation within this state.” Reviewing the authorities on the question as to whether or not a reclamation district was a municipal corporation, without directly passing upon this point, the court disposes of the case upon another theory. It says: “It is not necessary to hold this property, thus acquired, to be the property of a municipal corporation, in order to make it exempt from taxation. It would be sufficient to hold that it is public property of the state, within the meaning of the constitution.”

It requires great latitude of construction to hold the property of a reclamation district as property “belonging *192 to the state,” but, considering the nature of such district organization with its limited corporate powers under the law as it existed at the time covered by this decision, it was perhaps a more logical conclusion than to class it as a municipal corporation.

The supreme court of Illinois in determining the liability of a drainage district of the city of Chicago to taxation upon property it owned outside the corporate limits of the city under analogous constitutional provisions (*Chicago Sanitary Dist. v. Martin*, 173 Ill. 243, [64 Am. St. Rep. 110, 50 N. E. 201]), held that as the legal title to the property was vested in the district, it could not be held to be property “belonging to the state.”

People v. Morrill, 26 Cal. 336, defines “lands belonging to the state” as those “(1), which it holds by virtue of grants from the United States; (2), those which it owns by reason of its sovereignty.” In either event, the term implies ownership and not mere authority and control over. In view of the fact that the law of California governing irrigation districts expressly provides that “the legal title to all property acquired under the provisions of this act shall immediately and by operation of law vest in such irrigation district,” it would be an elastic use of terms to hold that the interests of the state in such lands

amounts to such ownership as to justify holding such property to belong to the state.

As previously pointed out, the only remaining alternative which will permit of any exemption of irrigation district property at all is to include such district for the purposes of this section as a “municipal corporation.”

It, of course, follows that if the general exemption clause of section 1, article XIII, of the constitution, includes irrigation districts under the classification of “municipal corporations,” the exception from such exemption of “lands and the improvements thereon located outside the county, city and county or municipal corporation owning the same,” must also apply to such irrigation districts, for the term “municipal corporations” is obviously used in the same sense in both connections.

But the most persuasive reason for classifying an irrigation district as a municipal corporation under this constitutional provision is that any other construction, in my *193 opinion, defeats the very apparent purpose of the amendment.

It is doubtless true, as set forth in the argument presented to the voters on the submission of this amendment, that the inducing cause of the amendment was the acquisition of large real estate interests in the counties of Tuolumne, Mono, and Inyo for reservoir purposes by the distant cities of Los Angeles and San Francisco. These corporations happen to be governmental municipalities, but that was not the circumstance which appealed to the voters of these counties and others likely to be invaded by public power and water purveyors.

The real purpose was to prevent abuses threatened and likely to recur from permitting private lands subject to taxation in one jurisdiction to be taken over for public uses by other communities and by depriving the territory in which the lands are situated of the revenue from this taxation thus throw part of the burden of such public use upon territory not benefited by it. What possible reason or justification could there be for protecting these outside jurisdictions from the incursions of towns and cities in search of water storage and distribution and leaving them exposed to precisely the same invasion by extensive irrigation districts outside their territory. The gist of the matter clearly appears in the part of the argument for this constitutional amendment which says: “Uncertainty on this matter should be removed by a legal assurance that while natural resources within one county may be directly used for

the upbuilding of another, lands or other property already upon the invaded county's tax-roll shall continue to bear its share of maintaining the county government.”

The direct object of the amendment was to protect and conserve the revenues of the invaded territory, and with that object in view it can make no difference whether the public use acquired is by a city or county, or some other public corporation exercising municipal functions.

No violence is done to the rules of construction under the interpretation of the term “municipal corporations” here contended for. It is common knowledge that in popular usage the term “municipal corporation” is understood as applying to all departments of state organization *194 exercising public functions, and the same general use of the term is common in judicial decisions and with law text-writers.

In 19 Ruling Case Law, page 691, it is said that “municipal” in its primary sense means “pertaining to a town or city or to its local government,” but it also declares that the word “municipal” “has two meanings, one of which is pertaining to the internal government of a state or nation, and in that sense every corporation formed for governmental purposes is a municipal corporation”; and, further, at page 696, it is said: “The legislature frequently organizes the people of a certain territory into a district having certain limited powers for the carrying out of some particular public purpose. Familiar examples are school districts ... irrigation districts, levee districts ... but it has been held that such a district is a ‘corporation for municipal purposes.’ ” Such district organizations are very commonly referred to in the California decisions as public corporations for municipal purposes, or quasi-municipal corporations. (*Merchants' Bank v. Escondido Irr. Dist.*, 144 Cal. 329, [77 Pac. 937]; *People v. Reclamation Dist.*, 117 Cal. 120, [48 Pac. 1016]; *Central Irr. Dist. v. De Lappe*, 79 Cal. 351, [21 Pac. 825]; *Turlock Irr. Dist. v. Williams*, 76 Cal. 366, [18 Pac. 379]; *Hughes v. Ewing*, 93 Cal. 414, [28 Pac. 1067]; *Perry v. Otay Irr. Dist.*, 127 Cal. 565, [60 Pac. 40]; *Jenison v. Redfield*, 149 Cal. 500, [87 Pac. 62]; *Fogg v. Perris Irr. Dist.*, 154 Cal. 209, [97 Pac. 316]; *Healey v. Anglo-Californian Bank*, 5 Cal. App. 278, [90 Pac. 54]; *Dean v. Davis*, 51 Cal. 409.)

The same classification is maintained in the federal courts in the consideration of such districts under the laws of California. (*Fallbrook Irr. Dist. v. Bradley*, 164 U. S. 174, [41 L. Ed. 369, 17 Sup. Ct. Rep. 56]; *Tulare Irr. Dist. v. Shepherd*, 185 U. S. 1, [46 L. Ed. 773, 22 Sup. Ct. Rep. 531], see, also,

Rose's U. S. Notes]; *Herring v. Modesto Irr. Dist.*, 95 Fed. 705.)

In the construction of words used in a constitution a more general and inclusive definition is often recognized than in the more technical provisions of a statute or a contract. A constitution is the formulation of broad general *195 rules of governmental policy submitted to the popular will and understanding for their adoption.

“Where a word, having a technical as well as a popular meaning, is used in a constitution, the courts will accord to it its popular signification.” (*Weill v. Kenfield*, 54 Cal. 111; *Miller v. Dunn*, 72 Cal. 462, 465, [1 Am. St. Rep. 67, 14 Pac. 27]; *Towle v. Matheus*, 130 Cal. 574, 577, [62 Pac. 1064]; *San Pedro etc. R. Co. v. Hamilton*, 161 Cal. 610, 617, [37 L. R. A. (N. S.) 686, 119 Pac. 1077]; *Perrin v. Miller*, 35 Cal. App. 129, 132, [169 Pac. 426].)

This rule of liberal construction appears to have been applied by this court in *Southern Pac. Co. v. Levee Dist. No. 1*, 172 Cal. 345, [156 Pac. 502], construing the use of the word “municipal” in an amendment to the state constitution in a way which we think has a marked bearing on this case. In the amendment of the constitution by adoption of the new section 14, article XIII, for the purpose of changing the system of taxation of corporations, it was declared that the system of taxation provided should “be in lieu of all other taxes and licenses, state, county and municipal.” Levee District No. 1 of Sutter County, being a levee district organized under the act of the legislature for the creation of such districts, undertook to levy a tax upon property of the Southern Pacific Company within such district, and attempted to sustain the validity of such tax against the plea of this constitutional amendment on the ground that it is a district and not a municipality, and that the amendment does not exempt from district taxation. This court in the case cited, while holding directly that such levy district was not a municipal corporation, decided upon an exhaustive consideration of the purposes of the section, and the obvious intent of the constitutional amendment, that district taxes of this nature were included under the term “municipal,” and says: “It would appear to be beyond peradventure, therefore, that when the constitution declared that the state taxes ‘shall be in lieu of all other taxes, state, county, and municipal’ it used the words ‘state, county and municipal’ as inclusive and descriptive, and not as designed to exempt districts from its operation ...”

An irrigation district probably comes nearer than any other of the subordinate public corporations of the state *196 to meeting the technical requirements defining a municipal corporation. It has its own directors and officers, conducts its own elections, can sue and be sued in its corporate name, issues bonds, levies, collects, and disburses its own revenues, acquires and holds property, both real and personal, in its own name, and in the management of its internal affairs is entirely independent of the county and state, aside from the control of general laws.

While the courts have frequently drawn the line between public corporations of a *quasi*-municipal character and those performing strictly municipal functions, it has usually been for the purpose of defining limitations upon the political powers of these lesser state agencies, but no reason seems to exist why the distinction should be pushed so far in this case as to exclude irrigation districts from the operation of the constitutional amendment under discussion.

Rehearing denied.

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211 Cal.App.4th 866
Court of Appeal, Fourth District, Division 1, California.

Salvador BASURTO,
Plaintiff and Appellant,

v.

IMPERIAL IRRIGATION DISTRICT,
Defendant and Respondent.

D058353

Filed November 8, 2012

Synopsis

Background: Former employee brought action against irrigation district for age and race discrimination in violation of Fair Employment and Housing Act (FEHA) and wrongful termination, and petitioned for writ of mandate challenging the district board's adverse decision on his administrative challenge to his termination. The Superior Court, Imperial County, No. ECU01967, [Joseph W. Zimmerman, J.](#), granted summary judgment for district. Employee appealed.

Holdings: The Court of Appeal, [Haller, J.](#), held that:

district board hearing was sufficiently judicial for collateral estoppel effect;

district board did not suffer from any inherent bias precluding its administrative hearing from having collateral estoppel effect; and

board decided same issue underlying civil action in administrative hearing.

Affirmed.

****148** APPEAL from a judgment of the Superior Court of Imperial County, [Joseph W. Zimmerman](#), Judge. Affirmed. (Super. Ct. No. ECU01967)

Attorneys and Law Firms

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[HALLER, J.](#)

*870 I. INTRODUCTION

Plaintiff Salvador Basurto (Basurto) appeals from the trial court's order granting summary judgment in favor of defendant Imperial Irrigation District (the District) on Basurto's damages claims alleging age and/or race discrimination and wrongful termination. The trial court determined that Basurto's civil claims were barred, under principles of collateral estoppel and res judicata, by a prior adverse administrative decision of the District's governing board (District Board). In that hearing, the District Board had concluded, after an evidentiary adversarial hearing pursuant ****149** to the District's internal grievance procedures, that Basurto's termination for causing a serious vehicular accident while affected by alcohol was supported by the evidence and warranted under the District's policies regarding alcohol use and negligent operation of a District vehicle. Basurto did not raise his discrimination and wrongful termination allegations at that hearing, nor did he raise issues of claimed bias and due process violations.

Basurto challenged the administrative ruling by means of a petition for writ of mandate and civil complaint in the superior court. In the writ petition, Basurto alleged that the District's internal grievance procedures had denied him due process and that the District Board could not be impartial. He did not argue that the evidence did not support the District Board's findings. The trial court ultimately denied the writ petition, finding that Basurto had waived his due process and bias claims by failing to raise them at his administrative hearing. On the District's subsequent summary judgment motion on the civil complaint, the trial court determined that Basurto had been "afforded due process and the opportunity to raise every theory under which his right to continued employment may have been affected, including whether he was discriminated against based on his age and/or race." It therefore granted summary judgment in the District's favor on the civil complaint, citing [Johnson v.](#)

[City of Loma Linda \(2000\) 24 Cal.4th 61, 99 Cal.Rptr.2d 316, 5 P.3d 874 \(Johnson\)](#) and [Takahashi v. Board of Education of Livingston Union School District \(1988\) 202 Cal.App.3d 1464, 249 Cal.Rptr. 578 \(Takahashi\)](#).

On appeal from the trial court's judgment, Basurto primarily contends that the District Board's decision should not bar his civil claims because the District's internal complaint procedures are not of a sufficient "judicial character" to allow application of collateral estoppel or res judicata. We disagree. The administrative hearing conducted by the District Board possessed the critical attributes of a quasi-judicial proceeding, including the *871 ability for Basurto to be represented by counsel before an impartial panel, to raise any and all claims pertinent to his discharge, and to present evidence and cross-examine witnesses. We reject Basurto's contention that the District Board could never be impartial as a decision maker when a ruling in an employee's favor could have an adverse financial consequence to the District. If that were the case, no administrative proceeding involving an employment or disciplinary dispute could ever be valid and binding. The law does not support such a categorical invalidation of adjudications by an administrative agency. Accordingly, we affirm.

II. FACTUAL AND PROCEDURAL BACKGROUND

A. Basurto's Discharge and the Initial Administrative Proceeding

The facts underlying this appeal are largely undisputed. Basurto was employed for approximately 31 years by the District as a zanjero,¹ delivering water to farmers using a District vehicle. About 8:00 a.m. on March 31, 2003, while on duty and driving a District vehicle, Basurto was involved in a collision with another vehicle, causing extensive property damage to both vehicles and personal injury to the driver of the other car. The police report on the accident indicated that Basurto admitted **150 to the responding officer that he had consumed alcohol the previous evening. The police conducted a field sobriety examination and a "preliminary alcohol screening device" test, and determined that Basurto still had alcohol in his system, with a blood-alcohol level of 0.031 percent at the time of the accident. (Capitalization omitted.) The police concluded that Basurto "was not under the influence of an alcoholic beverage," but that he caused the

accident by failing to yield the right of way. (Capitalization omitted.)

¹ "One who is in charge of water distribution." (<<http://wordsmith.org/words/zanjero.html>> [as of Nov. 8, 2012].)

This incident prompted the District to discharge Basurto on April 18, 2003. At that time, Basurto was 55 years old. He appealed his discharge through the District's internal complaint procedures, contending that termination was too strong a penalty and that other employees who had been "compromised" had not been discharged but had received less severe discipline. Basurto's complaint was reviewed by his supervisor, the department head, the management committee, and finally, the District Board. At all levels, his complaint was denied.

Before issuing its decision on February 26, 2004, the District Board held a hearing and received testimony and documentary evidence in accordance with *872 its internal procedures. In addition to hearing evidence of the circumstances surrounding the accident in question, the District Board also received evidence that twice before during the prior 10 years, Basurto had been disciplined for negligent vehicle operation, although generally he had received very favorable performance evaluations during that period. In denying his complaint, the District Board concluded that Basurto had violated District policies and procedures prohibiting employees from reporting to work while under the influence of alcohol, and that he had negligently operated his District vehicle.

B. The Initial Writ Petition and Complaint

Basurto filed a claim with California's Department of Fair Employment and Housing on April 13, 2004, and thereafter received a right-to-sue notice under the California Fair Employment and Housing Act ([Gov.Code, §§ 12900 et seq.](#)) (FEHA). On May 25, 2004, three months after the District Board's decision became final, Basurto filed in the superior court a complaint for damages and petition for writ of mandate. Basurto alleged civil claims under the FEHA seeking reinstatement and backpay on the grounds of age and/or race discrimination, as well as a claim for wrongful termination of an employment contract. In the same filing, he petitioned for a writ of mandate pursuant to [Code of Civil Procedure sections 1085](#) and [1094.5](#), arguing that he was denied due process in the administrative proceeding.

Nearly a year later, and close to the scheduled trial date of his civil claims, Basurto obtained a hearing date on his writ petition and filed his supporting memorandum of points and authorities. In his brief, Basurto argued principally that the District was subject to the requirements of the Administrative Procedure Act, [Government Code sections 11340 et seq.](#) (APA), but its hearing on Basurto's complaint of wrongful discharge did not comply with the APA. In response, the District maintained that relief was barred by laches (i.e., Basurto's failure to diligently prosecute the matter), that the APA does not apply to irrigation districts, and that Basurto received a fair hearing.

In September 2005, the trial court issued a tentative decision denying an administrative writ of mandate. Although the trial court rejected the District's laches argument, it concluded that the APA did not apply to the District, and further found ****151** that substantial evidence supported the District Board's decision—save for its finding of driving under the influence, but as to that finding Basurto had failed to show prejudice. After reviewing Basurto's proposed statement of decision raising issues about the state of the record, the trial court issued an order vacating its tentative decision in February 2006. The court noted that it “appears that there is no agreed upon administrative record, as such, yet filed or established with the Court concerning [Basurto's] writ ***873** application. Nor does it appear that the parties have moved any of their various exhibits, in whole or part, into evidence.” The trial court directed the parties “to agree upon a uniform administrative record,” and if they could not do so, it alternatively directed Basurto to “make a motion in this Court to settle an administrative record which may be entered into evidence.” Basurto made such a motion, and the District opposed. The parties' differences focused on the authenticity of a purported transcript of Basurto's hearing before the District Board, and the admissibility of an audiocassette tape of that hearing. In April 2006, the trial court issued an order settling the administrative record, which included both the transcript and the audiotape.

After a subsequent hearing, a different trial judge granted the writ of mandate on September 20, 2006. It incorporated the September 2005 findings regarding the failure of Basurto to show a prejudicial abuse of discretion by the District Board. However, the court ruled that it was unclear from the administrative record what documents in the record had been provided to Basurto, and when, or even whether, any documents had been offered to or received by the District

Board members during the hearing. The trial court concluded that the District Board “failed to proceed as required by law within the meaning of [Code of Civil Procedure \[section\] 1094.5\(b\)](#) in that [Basurto] did not have notice that the documents were being offered to the board as evidence, nor did he have notice that the board received the documents.” The trial court directed the District “to either conduct a new hearing consistent with this ruling or, alternatively, reinstate [Basurto] and restore to him all salary and benefits lost as a result of [the District's] decision.” The court entered judgment on the writ petition on November 8, 2006, and the writ issued on November 30, 2006.

The District neither reinstated Basurto nor held a new hearing by the return date stated in the writ. Basurto moved for the imposition of a fine and other measures to secure enforcement of the writ. The District attempted to explain its failure to respond to the writ by asserting, among other things, that attempts to hold a second hearing on Basurto's discharge had been delayed by the demands of Basurto's counsel regarding how the new hearing should be conducted, and before whom. On August 22, 2007, the original trial judge issued an order imposing a fine against the District for failure to timely respond to the writ without just excuse.

C. The Second Administrative Proceeding

On June 12, 2007, the District Board conducted a second hearing on Basurto's discharge. In response to concerns expressed by Basurto's counsel regarding improper ex parte contacts between the District Board and the District's counsel, the District had earlier substituted new outside counsel to ***874** handle the second administrative proceeding. Basurto's counsel also had made a number of other procedural demands including, among other matters, a hearing before an administrative law judge rather than the District Board (which Basurto claimed was inherently biased), ****152** access to certain witnesses, the use of a certified court reporter, and the admission (or exclusion) of certain evidence. The District acceded to some of Basurto's requests and rejected others. It offered to have the matter heard before a state-certified neutral instead of the District Board, but Basurto declined that offer.

The second hearing was held before the District Board, which consisted almost entirely of new members; only one of the members had participated in Basurto's previous hearing. At the outset, and expressly in response to one of the concerns Basurto's counsel had raised in his earlier written

communications, the District's counsel inquired as follows of the District Board members: "Are there any Board members that have a financial or personal interest in this matter? That's a no. Are there any Board members who have had any discussions with any attorneys representing [the District] that would in any way bias you or make you unable to be impartial and fair in this matter? That's a no or a shake of the head as well."

During the hearing, which lasted about seven hours and was transcribed by a certified court reporter, both sides were represented by counsel; the burden of proof and evidentiary procedures were explained; objections to the admissibility of evidence were considered and ruled upon; documents were received; deposition testimony was read into the record; witnesses were called by both sides, testified under oath and were subject to cross-examination; District Board members were able to ask questions; and counsel were allowed to present opening and closing statements. As occurred at the first hearing, the District Board heard evidence that Basurto had received very favorable performance evaluations over the years, but also that he had been disciplined twice before for negligent operation of a District vehicle. Additionally, the District Board received evidence that given the rate of alcohol metabolism, Basurto's blood-alcohol level was 0.08 percent or higher at the time he reported for work at 6:00 a.m. on the date of the accident. At no time did Basurto present evidence or argument regarding his discrimination and wrongful termination claims. Apart from merely alluding to his concern that the District Board could not be impartial, Basurto's counsel voiced no objection to proceeding at that hearing, he made no argument and presented no evidence supporting his due process and bias allegations, and he did not voir dire the District Board members on these issues.

On July 10, 2007, the District Board issued a six-page decision concluding that "the penalty of discharge imposed was appropriate," and denying Basurto's grievance and affirming his discharge. The District Board found that Basurto *875 had violated District policy in that he "was affected by prior alcohol use" and was "under the influence of alcohol" at the time of the accident, had operated a District vehicle while under the influence of alcohol, and had negligently damaged District property. The District Board cited the District policies and procedures that Basurto had violated. It detailed the evidence it had examined and the witnesses that testified. It specifically found that the penalty imposed on Basurto was not applied differently to Basurto "than it historically has been applied to other similarly situated District employees," and

noted that it had taken into account Basurto's "long service and performance as an employee of the District."

D. *The Second Writ Petition and Amended Complaint*

Following issuance of the District Board's decision, Basurto commenced a new proceeding with the filing of a second **153 petition for writ of mandate against the District. Thereafter, he filed a "First Amended Complaint for Damages and Supplemental Petition for Writ of Mandate" (first amended complaint) in the first action. Basurto alleged that the second writ petition filed under a different case number was a " 'protective Action' so as to prevent any argument on procedural grounds contesting" the supplemental writ petition. In its answer to the amended complaint, the District challenged the propriety of Basurto's "supplemental" petition for writ of mandate, on the ground that the first writ petition already had been fully adjudicated and thus could not be "supplemented." On October 5, 2007, pursuant to the parties' stipulation, the trial court ordered the two matters to be consolidated under the case number for the first action. Basurto's amended complaint for damages was substantially similar to his initial complaint in all ways material to this appeal.

More than 16 months later, on February 24, 2009, Basurto filed a notice of hearing on the second writ petition. In support of his petition, Basurto indicated that he was not asking the trial court to set aside the District Board's decision to terminate him, but rather stated that the purpose of the petition was to avoid any collateral estoppel effect of the District Board's decision on his civil discrimination claims. In arguing that the District Board's decision should not be given collateral estoppel or res judicata effect, Basurto maintained that the District Board's hearing violated due process in that, among other reasons, the hearing was not held before an impartial hearing examiner, and the District Board had no procedures whereby Basurto could effectively raise his age discrimination claims. The District responded that the petition should be denied because it was supported by substantial evidence, and the hearing comported with due process.

On June 30, 2009, the trial court denied Basurto's petition for mandamus relief. The court found that Basurto had "waived his due process objections *876 and bias issues to the hearing and its collateral estoppel effect by not raising these issues before the Board at the time of the hearing." Basurto thereafter filed a petition for writ of mandate in this court,

raising essentially the same arguments he raised in his trial court writ petition. We summarily denied his petition on October 9, 2009, noting that Basurto “has an adequate remedy by way of appeal.”

E. *The Summary Judgment Motion and the Trial Court's Order*

After Basurto's writ petition in this court was denied, the District moved for summary judgment, or in the alternative, summary adjudication as to Basurto's civil claims for damages. The District primarily argued in support of its motion that Basurto's age and race discrimination claims were barred by res judicata and/or collateral estoppel, in that Basurto could and should have raised those claims before the District Board, but failed to do so. The District relied in particular on [Johnson, supra, 24 Cal.4th 61, 99 Cal.Rptr.2d 316, 5 P.3d 874](#), which held that “when, as here, a public employee pursues administrative civil service remedies, receives an adverse finding, and fails to have the finding set aside through judicial review procedures, the adverse finding is binding on discrimination claims under the FEHA.” (*Id.* at p. 76, 99 Cal.Rptr.2d 316, 5 P.3d 874.) In support of its res judicata argument, the District cited [Takahashi, supra, 202 Cal.App.3d 1464, 249 Cal.Rptr. 578](#), in which a public school teacher's civil discrimination claims were barred by the trial court's denial of her writ petition challenging an adverse administrative ruling. (*Id.* at pp. 1474, 1481–1485, 249 Cal.Rptr. 578.)

****154** In response, Basurto contended that the District Board's decision should not be given estoppel effect, for several reasons. He conceded that his race and age discrimination claims were not raised during the District Board hearing, but argued there was no basis for raising them at that time because the District Board's internal procedures were designed to address only an employee's performance or behavior issues, not the District Board's conduct. Further, he asserted that the District Board's hearing was not the type of “real administrative hearing” that, under *Johnson* and other case law, afforded “ ‘extensive and detailed procedural protections’ ” sufficient to give rise to collateral estoppel or res judicata effect.

In an order dated July 1, 2010, the trial court granted the District's motion for summary judgment. The trial court found that under [Johnson, supra, 24 Cal.4th 61, 99 Cal.Rptr.2d 316, 5 P.3d 874](#), and [Takahashi, supra, 202 Cal.App.3d](#)

[1464, 249 Cal.Rptr. 578](#), collateral estoppel and res judicata barred Basurto's entire first amended complaint. The trial court concluded that the District Board had held a “full evidentiary hearing” regarding Basurto's termination, “during which he was afforded due process and the opportunity to raise every theory under which his right to continued *877 employment may have been affected, including whether he was discriminated against based on his age and/or race.... Plaintiff failed to raise issues of age and/or race discrimination at the termination hearing.” Further, the trial court noted that Basurto had failed to have the District Board's decision vacated by writ petition:

“As a result, all of the issues that could have been or should have been raised as a defense to [Basurto's] termination during the administrative proceeding, including issues of discrimination and his wrongful termination, are collaterally estopped from being raised in the First Amended Complaint. Further, the causes of action in the First Amended Complaint concern the same primary right at issue in the administrative and writ proceedings and therefore they are barred by the doctrine of res judicata and the prohibition against splitting a cause of action.”

The trial court entered judgment on Basurto's claims on August 12, 2010.

III. DISCUSSION

A. *Standard of Review*

On this appeal, we are asked to consider whether the trial court erred in granting summary judgment on the ground that Basurto's civil claims for discrimination and wrongful termination are barred as a matter of law by the doctrines of collateral estoppel and res judicata. We review the granting of the District's summary judgment motion de novo, considering all of the evidence presented by the parties, except that which was properly excluded by the trial court. ([Guz v. Bechtel National, Inc. \(2000\) 24 Cal.4th 317, 334, 100 Cal.Rptr.2d 352, 8 P.3d 1089](#).) “We are not bound by the [trial] court's stated reasons for its summary judgment ruling; rather, we examine the facts before the trial court then independently determine their effect as a matter of law.” ([O'Toole v. Superior Court \(2006\) 140 Cal.App.4th 488, 501, 44 Cal.Rptr.3d 531](#).)

B. Basic Principles of Collateral Estoppel

Collateral estoppel has been described as “one aspect of the concept of res judicata.” (*Lucido v. Superior Court* (1990) 51 Cal.3d 335, 341, fn. 3, 272 Cal.Rptr. 767, 795 P.2d 1223 (*Lucido*)). “Collateral estoppel precludes relitigation of issues argued and decided in prior proceedings.” **155 (*Id.* at p. 341, 272 Cal.Rptr. 767, 795 P.2d 1223.) The threshold prerequisites for its application are well known:

“First, the issue sought to be precluded from relitigation must be identical to that decided in a former proceeding. Second, this issue must have been actually litigated in the former proceeding. Third, it must have been necessarily decided in the former proceeding. Fourth, the decision in the former proceeding must be final and on the merits. Finally, the party against whom *878 preclusion is sought must be the same as, or in privity with, the party to the former proceeding.”

(*Ibid.*) The doctrine of collateral estoppel, or issue preclusion, also rests on fundamental public policies, including “preservation of the integrity of the judicial system, promotion of judicial economy, and protection of litigants from harassment by vexatious litigation.” (*Id.* at p. 343, 272 Cal.Rptr. 767, 795 P.2d 1223.) Accordingly, the propriety of invoking collateral estoppel depends not simply on a determination of whether its threshold requirements are met, but also on consideration of whether applying it “in a particular circumstance would be fair to the parties and constitutes sound judicial policy.” (*Ibid.*)

It has long been recognized that collateral estoppel not only prevents relitigation of court findings, but also may be applied to the decision of an administrative agency when that agency is acting in a judicial or quasi-judicial capacity. (*People v. Sims* (1982) 32 Cal.3d 468, 479, 186 Cal.Rptr. 77, 651 P.2d 321 (*Sims*); see *Castillo v. City of Los Angeles* (2001) 92 Cal.App.4th 477, 481, 111 Cal.Rptr.2d 870 (*Castillo*); *Knickerbocker v. City of Stockton* (1988) 199 Cal.App.3d 235, 242, 244 Cal.Rptr. 764.) Giving preclusive effect to prior administrative findings in appropriate cases furthers the policies underlying the collateral estoppel doctrine, in that it “promote[s] judicial economy by minimizing repetitive litigation,” prevents “the possibility of inconsistent judgments which may undermine the integrity of the judicial system,” and protects parties “from being harassed by repeated litigation.” (*Sims, supra.*

32 Cal.3d at pp. 488–489, 186 Cal.Rptr. 77, 651 P.2d 321; see *Johnson, supra*, 24 Cal.4th at p. 75, 99 Cal.Rptr.2d 316, 5 P.3d 874 [the value of “enforcing repose” is furthered by precluding a FEHA claim that would relitigate facts already determined by an administrative agency].)

However, California courts have also emphasized that an administrative decision may operate as a bar to later judicial relief only when the court is first satisfied that the administrative proceeding leading to that decision had a sufficiently “judicial” character. In other words, administrative findings may be given preclusive effect only when the administrative agency “ ‘is acting in a judicial capacity and resolves disputed issues of fact properly before it which the parties have had an adequate opportunity to litigate.’ ” (*Sims, supra*, 32 Cal.3d at p. 479, 186 Cal.Rptr. 77, 651 P.2d 321, original italics, quoting *United States v. Utah Construction & Mining Co.* (1966) 384 U.S. 394, 422, 86 S.Ct. 1545, 16 L.Ed.2d 642; see *McDonald v. Antelope Valley Community College Dist.* (2008) 45 Cal.4th 88, 113, 84 Cal.Rptr.3d 734, 194 P.3d 1026 (*McDonald*); *Pacific Lumber Co. v. State Water Resources Control Bd.* (2006) 37 Cal.4th 921, 944, 38 Cal.Rptr.3d 220, 126 P.3d 1040 (*Pacific Lumber*)). “Indicia of [administrative] proceedings undertaken in a judicial capacity include a hearing before an impartial decision maker; testimony given under oath or affirmation; a party's ability to subpoena, call, **156 examine, and cross-examine witnesses, to introduce documentary evidence, and to make oral and written argument; the taking of a record *879 of the proceeding; and a written statement of reasons for the decision.” (*Pacific Lumber, supra*, 37 Cal.4th at p. 944, 38 Cal.Rptr.3d 220, 126 P.3d 1040.)

For the most part, Basurto does not contest that the threshold requirements for the application of collateral estoppel are met in this case. Rather, he contends that the District Board's hearing was not sufficiently “judicial” to be accorded collateral estoppel effect. He argues, in particular, that he was denied due process by the District's failure to comply with APA procedures. Additionally, he contends that the District Board was inherently biased and could not be impartial in determining whether his discharge was justified. For the reasons explained below, we conclude that these contentions are belied by the record. Because we also conclude that the other requirements for the application of collateral estoppel are satisfied, we affirm the trial court's judgment.

C. Summary of the Administrative Process and Judicial Review

As the foregoing authority makes clear, determining whether a prior administrative decision properly may bar later civil claims entails an evaluation of the nature and scope of the agency's internal administrative proceeding. To provide some context for this analysis, we briefly summarize the legal framework governing Basurto's administrative remedies and the prerequisites for pursuing his FEHA and wrongful termination claims.

Employees who believe they have suffered discrimination at the hands of their employers and wish to file civil claims for damages under the FEHA must first exhaust their administrative remedies by filing a complaint with the Department of Fair Employment and Housing (DFEH) and obtaining a right-to-sue notice. (See, e.g., *Rojo v. Kliger* (1990) 52 Cal.3d 65, 72, 83, 276 Cal.Rptr. 130, 801 P.2d 373; *Morgan v. Regents of University of California* (2000) 88 Cal.App.4th 52, 63, 105 Cal.Rptr.2d 652; Gov.Code, §§ 12960, 12965, subd. (b).) Employees also may, *but are not required to*, pursue internal administrative remedies offered by their employer. (*Schifando v. City of Los Angeles* (2003) 31 Cal.4th 1074, 6 Cal.Rptr.3d 457, 79 P.3d 569 [municipal employee need not exhaust city's internal remedies prior to filing a complaint with DFEH].) However, if they voluntarily choose to first obtain relief by means of the employer's internal procedures, they must fully exhaust that avenue of relief. This entails not merely exhausting the administrative remedy itself, but also the *judicial* remedies—petitioning for an administrative writ of mandate and appeal from any order on that petition—that are the exclusive means of reviewing any administrative decision. (See *Johnson, supra*, 24 Cal.4th at p. 70, 99 Cal.Rptr.2d 316, 5 P.3d 874 [exhaustion of judicial remedies is necessary to avoid giving binding effect to the agency's decision].) *Johnson* makes clear that failure to set aside an agency's quasi-judicial *880 decision will render that decision final and binding on a plaintiff's later FEHA claims. (*Id.* at p. 76, 99 Cal.Rptr.2d 316, 5 P.3d 874.)

In this case, Basurto not only filed a claim with the DFEH and obtained a right-to-sue notice, he also opted to challenge his discharge under the District's internal procedures. At his second administrative hearing, he admittedly did not raise his discrimination and wrongful termination claims. The District Board ruled against Basurto, and set forth its decision **157 concluding that Basurto's discharge was an

appropriate penalty, based on the following findings, among others: (1) Basurto was under the influence of alcohol at the time of the accident; (2) Basurto caused an accident resulting in major damage to property and serious personal injury to the driver of the other vehicle; (3) Basurto was in violation of the District's policies regarding the use of alcohol; (4) Basurto violated District policy in negligently causing injury to District property; and (5) the penalty of discharge had not been applied to him differently than to other similarly situated District employees.

Basurto then petitioned the trial court for a writ of mandate, but only to avoid the collateral estoppel effect that, under *Johnson*, otherwise would be accorded the District Board's decision. Specifically, he argued that he was denied due process and an impartial hearing officer; he did not, however, assert that the District Board's findings were not supported by the weight of the evidence. The trial court found he had waived his due process and bias arguments by not raising them at the hearing. Based on Basurto's failure to have the District Board's decision set aside, the trial court thereafter granted summary judgment against Basurto, holding that the District Board's decision, and Basurto's failure to have it set aside, barred his civil damages claims.

D. The District's Internal Grievance Procedures Are Sufficiently "Judicial" in Character for Collateral Estoppel to Bar Basurto's Civil Damages Claims

We now turn to Basurto's principal contention that the District failed to show its internal complaint process possesses the indicia of a "real" quasi-judicial proceeding so as to bar Basurto's civil claims for damages. On this point, Basurto makes two arguments: First, the District failed to utilize the procedures contemplated in the APA, and second, the District Board was inherently biased, requiring that the hearing be held before an independent decision maker. We conclude that neither of these arguments has merit, that Basurto had a full and fair opportunity to present any and all challenges he may have had to his discharge at the hearing before the District Board, and that his claim of bias is purely speculative.

*881 At the outset, we agree with Basurto that the party asserting the defense of collateral estoppel bears the burden of establishing that its requirements have been met. (*Lucido, supra*, 51 Cal.3d at p. 341, 272 Cal.Rptr. 767, 795 P.2d 1223.) He is also correct that it was the District's burden to show that it was entitled to judgment as a matter of law.

(See [Aguilar v. Atlantic Richfield Co. \(2001\) 25 Cal.4th 826, 850, 107 Cal.Rptr.2d 841, 24 P.3d 493.](#)) But we summarily reject Basurto's contention that the District presented “no evidence” to establish the judicial character of its internal proceeding. (Italics added.) The record refutes this assertion. For example, the District's separate statement is supported by references to evidence showing the nature and extent of the hearing held before the District Board, including a description of the broad scope of evidence presented by both sides at the hearing, and in particular, of the evidence demonstrating that Basurto was not treated differently than other similarly situated employees. Moreover, the transcript of Basurto's hearing reveals that the District Board was expressly asked about potential conflicts of interest, that the members denied any such conflict or bias, and that Basurto made no effort to establish otherwise. As we will explain, this constitutes a sufficient prima facie showing to support summary judgment in the absence of any ****158** demonstration by Basurto raising a material question of fact on these issues. (See, e.g., [Y.K.A. Industries, Inc. v. Redevelopment Agency of City of San Jose \(2009\) 174 Cal.App.4th 339, 353, 94 Cal.Rptr.3d 424](#) (*Y.K.A. Industries*) [once moving party makes prima facie showing of nonexistence of any material, triable fact, burden shifts to opponent to demonstrate existence of such fact].)

1. The APA Does Not Apply to the District

Basurto's contention that the District was obliged to comply with APA-mandated procedures has no basis in the law. The trial court correctly concluded, in denying Basurto's second writ petition, that the APA does not apply to the District. The APA provides: “Except as otherwise expressly provided by statute: [¶] (a) This chapter applies to all agencies of the state.” ([Gov.Code, § 11410.20, subd. \(a\).](#)) It also specifies, however, that the APA “does not apply to a *local agency* except to the extent the provisions are made applicable by statute,” with “local agency” defined as, among other things, a “*district, public authority, public agency.*” ([Gov.Code, § 11410.30, subds.\(b\), \(a\), italics added.](#))

Basurto contends that in 1997, the APA's reach was expanded to cover all state agencies, unless specifically excepted. But “local agencies” such as “districts” were expressly excluded from this expansion of coverage. (See [Gov.Code, § 11410.30.](#)) Such agencies as the District were excluded, as the legislative comments to this section of the APA observe, “because of the very different circumstances of local government units when compared to state agencies.” (Cal. Law Revision Com. com., 32D ***882** [West's Ann. Gov.Code \(2005 ed.\) foll. § 11410.30, p. 272.](#)) The fact that a number of statutes have

since made the APA expressly applicable to various “local agencies” (such as school districts) does not help Basurto. (See, e.g., [Ed.Code, § 44944](#) [suspension or dismissal of permanent employee by school district], [Ed.Code, § 87679](#) [evaluation, dismissal and imposition of penalties on personnel employed by community college district].) If anything, these provisions merely highlight that, absent a similar requirement in the Water Code, local irrigation districts are “local agencies” excluded from coverage under the APA.²

² [Water Code section 20570](#) is not such a provision. That statute, which generally “reaffirmed that [irrigation] districts are state agencies” ([Wat.Code, § 20570](#)), was enacted decades before [Government Code section 11410.30](#). As the trial court concluded in its tentative decision on Basurto's first writ petition (later vacated for other reasons), “[t]he legislature was, presumably, aware of [Water Code § 20570](#) when it enacted [§ 11410.30](#); nevertheless, [§ 11410.30](#) provides a self-contained definition of local agencies exempted from the APA.” It is well established that “a more recent provision is typically more persuasive than an older one,” and the courts will “give effect to a specific statute relating to a particular subject in preference to a general statute.” ([Lazar v. Hertz Corp. \(1999\) 69 Cal.App.4th 1494, 1504, 82 Cal.Rptr.2d 368; Code Civ. Proc., § 1859](#) [in construing statutes, “when a general and particular provision are inconsistent, the latter is paramount to the former”].)

The cases cited by Basurto, which refer to irrigation districts as “state agencies,” are not helpful in determining whether the APA's procedures are applicable to district proceedings. First, none of these cases addresses that specific question. Second, we note that other courts have recognized that water districts are not considered state agencies for all purposes. (See, e.g., [Garrett v. Superior Court \(1974\) 11 Cal.3d 245, 248, 113 Cal.Rptr. 152, 520 P.2d 968](#) [holding that Riverside County's flood ****159** control and water conservation district is a local agency for purposes of the venue provision in [Code Civ. Proc., § 394](#)].)

Basurto also insists that even if the District was not required to follow APA procedures, it should have done so because it would be good policy. At a minimum, Basurto contends (quoting [Nightlife Partners, Ltd. v. City of Beverly Hills \(2003\) 108 Cal.App.4th 81, 91, 133 Cal.Rptr.2d 234](#)), that the APA is “helpful as indicating what the Legislature believes are the elements of a fair and carefully thought out system of procedure for use in administrative hearings.” That may be

so, but if the APA is not applicable, the only relevant inquiry is whether the procedures *actually followed* by the District provided adequate procedural safeguards and opportunities for Basurto to be heard. If they did, then under the guidelines set forth in cases such as [Sims, supra, 32 Cal.3d at pages 479–480, 186 Cal.Rptr. 77, 651 P.2d 321](#), and [Pacific Lumber, supra, 37 Cal.4th at page 944, 38 Cal.Rptr.3d 220, 126 P.3d 1040](#), the administrative hearing was sufficiently “judicial” in character to warrant the application of collateral estoppel. It is to that inquiry that we now, therefore, turn.

***883** 2. *The District's Evidentiary Hearing Afforded Basurto Due Process*

Rather than explain why the procedures the District actually employed in his case denied him due process, Basurto merely argues that because the procedures set forth in policy and procedure No. 4351 of the District's Manual of Operations are not identical to APA procedures, they cannot support the application of collateral estoppel so as to bar his civil claims. Basurto cites no law supporting this proposition, and more importantly, he provides no rebuttal to the District's showing that his second administrative hearing in fact bore many similarities to a judicial proceeding. In other words, Basurto failed to raise any triable issue of material fact regarding the alleged inadequacies of the District's procedures that might otherwise have precluded a grant of summary judgment on estoppel grounds. (See, e.g., [Y.K.A. Industries, supra, 174 Cal.App.4th at p. 353, 94 Cal.Rptr.3d 424](#).)

Whatever type of procedure might be contemplated by the District's policy and procedure No. 4351, the second hearing the District *actually provided* to Basurto had many of the indicia of an actual trial, particularly in comparison to the first hearing. First, Basurto does not and cannot dispute that he had actual notice of the charges against him and the subject matter of the hearing. Second, although Basurto complains about the lack of formal discovery under the District's internal procedures, the fact is that in the years preceding the second administrative proceeding, the parties conducted substantial discovery on issues relevant to his discharge, including the discrimination allegations. All of this discovery was available to Basurto at the time of his second hearing.

Third, prior to the second hearing, Basurto's counsel corresponded with the District's counsel on a number of issues, including Basurto's specific concerns about the procedures to be used at the hearing, his access to witnesses, and the impartiality of the District Board members. Many of the additional items Basurto requested tracked his position

that the District Board should conform to the APA. In response to these concerns, the District undertook the following: (1) substituted new counsel for the District, to address Basurto's complaint that its prior counsel had improper ex parte contact with District Board members; (2) provided a court reporter; and ****160** (3) provided Basurto with documents and a list of witnesses.

At the nearly seven-hour-long hearing, both sides were represented by counsel, who gave opening and closing statements. The District used outside counsel to prosecute the matter. The nature of the proceeding (specifically, that it was a de novo hearing and the District Board was not to consider what occurred at the prior hearing) was fully explained, as was the burden of proof. The administrative record was clarified at the outset. Both sides were ***884** able to call witnesses and cross-examine the other side's witnesses, all of whom testified under oath; documents were entered into evidence; and objections were raised, considered and ruled on by the District Board. An official transcript of the proceedings was prepared. The District Board issued a nearly six-page written decision, signed by the District Board president, that recited the evidence considered, identified the witnesses who appeared, and set forth specific factual findings and conclusions, with citation to District policies and procedures.

This hearing was far more thorough, and provided far more procedural safeguards, than Basurto's initial administrative hearing, at which he represented himself, no witness was sworn, there was no clarity as to the evidence considered and relied upon by the District Board, and there was no court reporter. The procedures actually followed at the second hearing are, in fact, substantially similar to those Basurto contends are required under the APA, and to those outlined by the California Supreme Court in [Sims, supra, 32 Cal.3d at pages 479–480, 186 Cal.Rptr. 77, 651 P.2d 321](#), and [Pacific Lumber, supra, 37 Cal.4th at page 944, 38 Cal.Rptr.3d 220, 126 P.3d 1040](#). Basurto appears to rest his due process argument on the sole fact that the District's *written* policies and procedures do not themselves contain all these safeguards, even though he actually benefitted from those protections at his hearing. This argument is unpersuasive and unsupported by any authority.

On the contrary, California precedent makes clear that an administrative hearing, to qualify as sufficiently “judicial” for collateral estoppel purposes, need not be identical to a judicial trial, so long as basic due process considerations are

satisfied. In *Sims*, supra, 32 Cal.3d 468, 186 Cal.Rptr. 77, 651 P.2d 321, the California Supreme Court considered whether a hearing conducted by the State Department of Social Services (DSS) under the “fair hearing” statute (Welf. & Inst.Code, § 10950) was of a sufficiently “judicial character” to permit collateral estoppel to attach to its decision. Even though, by statute, the APA does not apply to such hearings, and the rules of evidence are not applicable (Welf. & Inst.Code, §§ 10953, 10955), the *Sims* court found that the requirements of collateral estoppel were met when the hearing was “a judicial-like adversary proceeding,” in that it was conducted in an impartial manner, testimony was received under oath or affirmation, the parties were allowed to call, examine and cross-examine witnesses, make oral and written argument, and a verbatim record of the proceeding was created. (*Sims*, supra, at pp. 479–480, 186 Cal.Rptr. 77, 651 P.2d 321.) In these respects, the parties were provided with an adequate opportunity to fully litigate their claims—even though the county in that case failed to present evidence or participate in the hearing because of its claim that the DSS lacked jurisdiction. (*Id.* at pp. 474, 481, 186 Cal.Rptr. 77, 651 P.2d 321.) Further, the hearing officer provided a written statement of decision that, in an adjudicatory manner, applied existing rules to the facts of the case. (*Id.* at p. 480, 186 Cal.Rptr. 77, 651 P.2d 321.)

****161 *885** It is undisputed that Basurto's hearing had virtually identical characteristics. We therefore conclude that Basurto was provided with due process at his second administrative hearing.

3. Basurto's Claim That the District Board Was Inherently Biased Is Speculative and Unsupported by Law

The second focus of Basurto's complaint about the District's internal grievance procedures is on what he perceives to be the inherent bias of the District Board as adjudicator. According to Basurto, the District Board can never be impartial in deciding an employee's grievance when a decision in favor of the employee could result in a substantial financial penalty to the District, in the form of backpay, future wages, benefits, and attorney fees. We disagree.

If Basurto were correct, then no administrative agency could ever adjudicate employee disputes that might result in the agency's liability and financial compensation to the employee. Yet, statutory and case law long have recognized the ability of an agency to internally adjudicate employment and other matters, even where a result favorable to the other party may result in a financial gain for that party and a loss for

the agency (or the public fisc). Thus, in *Johnson*, collateral estoppel was applied where the employee's grievance was decided by the city's personnel board. (See *Johnson*, supra, 24 Cal.4th at p. 66, 99 Cal.Rptr.2d 316, 5 P.3d 874.) In *McDonald*, supra, 45 Cal.4th 88, 84 Cal.Rptr.3d 734, 194 P.3d 1026, the Supreme Court noted with approval that the community colleges' internal grievance procedures, with final review by the chancellor, “afford a complainant ... a full opportunity to formally or informally resolve a dispute.” (*Id.* at pp. 104–105, 84 Cal.Rptr.3d 734, 194 P.3d 1026; see *Westlake Community Hospital v. Superior Court* (1976) 17 Cal.3d 465, 131 Cal.Rptr. 90, 551 P.2d 410 [holding that doctor at private hospital was required to set aside internal tribunal's revocation of her privileges before maintaining a damages action].) The type of hearing at issue in *Sims* may be conducted by an administrative law judge, but the relevant statute provides that the director of the agency may instead designate himself or herself for that purpose. (See Welf. & Inst.Code, §§ 10950, 10953.) More pertinent to the present case, the boards of directors of irrigation districts have long been empowered to act “in a quasi-judicial capacity” in matters relating to employment. (See, e.g., *Wilbur v. Board of Directors* (1928) 94 Cal.App. 511, 519, 271 P. 514, italics omitted; see Wat.Code, § 22225 [empowering irrigation districts “to perform all acts necessary to carry out fully” their statutory functions].)

Accordingly, we reject Basurto's contention that the District Board is incapable of being impartial in resolving a dispute like this one. We also conclude that Basurto has failed to present any evidence that the board in fact ***886** was biased in this case.³ The evidence highlighted by the District demonstrates the opposite. First, we note that the members participating in the second hearing were all new to the board, and had not participated in the first hearing, with one exception. Second, the District's general counsel asked the members whether they had a personal or financial interest in the case, or whether they had any ex parte communications with District ****162** attorneys that might have created a bias or conflict of interest. The members uniformly denied any such conflicts or bias—a fact noted in the District Board's written decision. Basurto made no separate inquiry of the members on this issue, and he introduced no evidence suggesting that any of the members had in any way been influenced by District counsel or otherwise.⁴

³ It bears noting in this regard that the District offered Basurto the opportunity to have his case heard by a state-certified neutral—an offer he declined.

⁴ For these reasons, Basurto's reliance on cases such as *Ward v. Village of Monroeville* (1972) 409 U.S. 57, 93 S.Ct. 80, 34 L.Ed.2d 267, is misplaced. *Ward* involved a situation in which the mayor of the village acted as a judicial officer in criminal proceedings in which a conviction could result in fines and penalties which constituted a “major part of village income.” (*Id.* at p. 58, 93 S.Ct. 80.) *Tumey v. Ohio* (1927) 273 U.S. 510, 47 S.Ct. 437, 71 L.Ed. 749, presented an even more stark instance of a judge's personal pecuniary interest in obtaining a conviction, as that case involved an instance where the mayor's own salary and costs as judge were covered by such fees and fines. (*Id.* at p. 520, 47 S.Ct. 437.) This case presents a very different set of facts. Not only did the District adduce prima facie evidence at the hearing that the District Board members had no such pecuniary interest, either personally or as managers of the District, but also, the very purpose of the District's internal grievance procedures is to minimize costs to the District by ensuring that any error in discharging an employee may be quickly corrected. (See *Westlake Community Hospital v. Superior Court*, *supra*, 17 Cal.3d at p. 476, 131 Cal.Rptr. 90, 551 P.2d 410.) Basurto presented no evidence that the cost to the District of rehiring a wrongly terminated employee was so substantial as to create a bias in the District Board toward ruling against employees in these types of cases.

Basurto complains that the District's manual specified no procedure whereby he could have raised the issue of bias. Regardless of whether the District had a written policy or procedure specifically addressing that question, nothing prevented Basurto's counsel from raising the issue or examining the members individually on that matter. Indeed, Basurto's counsel alluded to the bias issue in his opening statement, and could well have examined the members individually, just as the District's general counsel did, but he chose not to do so.

In these circumstances, we are persuaded that the District met its burden of demonstrating that Basurto's grievance was adjudicated by a fair and impartial panel.

***887** E. *The Threshold Requirements for Application of Collateral Estoppel Are Met*

1. *Basurto Does Not Dispute That the District Board Considered and Decided the Same Issue Underlying His Civil Claims*

For collateral estoppel to apply, the District was required to show that the issues actually litigated before and decided by the District Board are identical to those underlying Basurto's civil claims. (*Lucido, supra*, 51 Cal.3d at p. 341, 272 Cal.Rptr. 767, 795 P.2d 1223.) Basurto makes no argument that these elements were not established, and the record provides ample support that they were.⁵

⁵ There is also no dispute that the administrative hearing and the lawsuit involved the same parties—Basurto and the District. (See *Lucido, supra*, 51 Cal.3d at p. 341, 272 Cal.Rptr. 767, 795 P.2d 1223.)

“The ‘identical issue’ requirement addresses whether ‘identical factual allegations’ are *at stake* in the two proceedings.” (*Lucido, supra*, 51 Cal.3d at p. 342, 272 Cal.Rptr. 767, 795 P.2d 1223, italics added.) At the heart of both Basurto's administrative proceeding and his civil lawsuit is the issue of the wrongfulness of his discharge. In both fora, Basurto alleged that, notwithstanding his admitted responsibility **163 for the accident, his conduct did not warrant discharge, and that other employees who had been found with drugs or alcohol in their systems did not lose their jobs. Therefore, the “identical issue” requirement is met. (See *Castillo, supra*, 92 Cal.App.4th at pp. 481–482, 111 Cal.Rptr.2d 870 [issue before agency of wrongfulness of discharge was held to be identical to issue underlying plaintiff's FEHA claim even though former was not based specifically on age or race discrimination].)

The same is true for the “actually litigated” and “necessarily decided” elements. (*Lucido, supra*, 51 Cal.3d at p. 341, 272 Cal.Rptr. 767, 795 P.2d 1223.) An issue is “actually litigated” when it “‘is properly raised, by the pleadings and otherwise, and is submitted for determination, and is determined A determination may be based on a failure of ... proof [Citation.]’ ” (*Sims, supra*, 32 Cal.3d at p. 484, 186 Cal.Rptr. 77, 651 P.2d 321, original italics.) The issue is considered to have been “necessarily decided” if it was not “‘entirely unnecessary’ ” to the judgment in the prior proceeding. (*Lucido, supra*, 51 Cal.3d at p. 342, 272 Cal.Rptr. 767, 795 P.2d 1223.) Here, Basurto raised in his administrative complaint that discharge was too severe a penalty, and that he was being treated differently than other similarly situated employees. At the hearing, the District Board received evidence of, among other things, the District's “last chance” policy that provided

employees who had been found to misuse drugs and alcohol another opportunity to conform their conduct to District policy without discharge, under certain circumstances. In an effort to *888 demonstrate that Basurto had not been treated disparately, the District presented evidence showing that the only other employee who had been found to have alcohol in his system and to have caused a serious vehicle accident was also discharged. Additionally, the District presented evidence of Basurto's involvement in two prior vehicle accidents. Basurto's counsel cross-examined the District's witnesses on these issues, and in particular, attempted to elicit testimony to support Basurto's contention that he should have been given another chance, particularly in light of his highly favorable performance reviews over the years. The District Board weighed all this evidence and concluded that Basurto's discharge was justified under the facts of the case, and explicitly concluded that he had not been treated differently than other similarly situated employees.

The fact that Basurto never raised his specific age and/or race discrimination allegations at his administrative hearing does not defeat the application of collateral estoppel. A party cannot circumvent the doctrine simply by cherry-picking which facts and theories to raise at his administrative hearing and which to reserve for a civil lawsuit, if all speak to the same issue—which in this case was the wrongfulness of Basurto's discharge—and if the party has a full and fair opportunity to present all those facts for determination (which, as we explained previously, Basurto was given here). As the Supreme Court observed long ago: “[E]ven though the causes of action be different, the prior determination of an issue is conclusive in a subsequent suit between the same parties as to that issue *and every matter which might have been urged to sustain or defeat its determination.*” (*Pacific Mut. Life Ins. Co. v. McConnell* (1955) 44 Cal.2d 715, 724–725, 285 P.2d 636, italics added.)

The case of *Castillo v. City of Los Angeles*, *supra*, 92 Cal.App.4th 477, 111 Cal.Rptr.2d 870, is instructive here. In *Castillo*, the trial court granted summary judgment against the plaintiff in his wrongful termination action on the ground that his **164 claims based on age, race and national origin discrimination were barred by a prior administrative ruling that he had been discharged for nondiscriminatory reasons relating to his performance. (*Id.* at pp. 479–480, 111 Cal.Rptr.2d 870.) At his administrative hearing, the plaintiff presented evidence showing alleged disparate treatment by his supervisor, although the plaintiff did not attribute that disparity to age, race or national origin. (*Id.*

at p. 482, 111 Cal.Rptr.2d 870.) Nevertheless, the court held that collateral estoppel barred his FEHA discrimination claims. It determined: “Castillo has not shown that he was prevented from introducing admissible evidence relevant to [the issue of discrimination].” (*Ibid.*) Furthermore, the hearing officer determined that Castillo's discharge was for *889 “appropriate” reasons; “if the hearing examiner were to have found that the reasons for the discharge were merely a pretext for discrimination, she would not have found the discharge was appropriate.” (*Ibid.*) Thus, the question whether Castillo's discharge was justified on nondiscriminatory grounds was actually litigated and necessarily decided.

Also instructive is *Takahashi*, *supra*, 202 Cal.App.3d 1464, 249 Cal.Rptr. 578. Although that decision rested principally on res judicata principles, the case bears substantial similarity to this one. In *Takahashi*, a longtime public school teacher was discharged on competency grounds, after a hearing before the Commission on Professional Competence. (*Id.* at p. 1470, 249 Cal.Rptr. 578.) At the hearing, the teacher challenged the commission's jurisdiction only; no mention was made of any constitutional or civil rights defense. (*Ibid.*) After the commission ruled against her, the teacher petitioned the trial court for writ of mandate, but again, did not raise her wrongful termination defenses, but continued to challenge the commission's jurisdiction only. (*Id.* at pp. 1470–1471, 249 Cal.Rptr. 578.) When the court denied her petition and the denial was affirmed on appeal, she sought to pursue civil claims that she was not terminated for good cause. (*Id.* at pp. 1471–1472, 249 Cal.Rptr. 578.) The trial court granted summary judgment on res judicata grounds. (*Id.* at pp. 1472–1473, 249 Cal.Rptr. 578.) The *Takahashi* court upheld that ruling on appeal. It concluded, among other things, that all of the plaintiff's civil claims arose “in conjunction with or as a result of the alleged wrongful termination of her employment,” and thus involved the same “primary right” as the one at stake in the administrative proceeding. (*Id.* at pp. 1475–1476, 249 Cal.Rptr. 578.) Further, it held that the plaintiff had the right to interpose any defense to her termination at her commission hearing, and the fact that she failed to do so did not preclude application of res judicata to the commission's decision. (*Id.* at pp. 1476, 1481–1482, 249 Cal.Rptr. 578.)

“ ‘It was never contemplated that a party to an administrative hearing should withhold any defense then available to him or make only a perfunctory or “skeleton” showing in the hearing and thereafter obtain an unlimited trial de novo, on expanded issues, in the reviewing court.’ ”

(*Id.* at p. 1481, 249 Cal.Rptr. 578, quoting *Bohn v. Watson* (1954) 130 Cal.App.2d 24, 37, 278 P.2d 454.)

So too, here, nothing prevented Basurto from presenting evidence that his discharge was attributable to age or race discrimination. The fact that the District Board received evidence addressing the question whether Basurto had received harsher punishment than others who had engaged in similar conduct refutes Basurto's position that the District's procedures did not contemplate that such issues could be raised. Basurto's core contention underlying **165 his internal grievance was that in discharging him, the District had treated him differently than other similarly situated employees—i.e., that the District's stated reason for his termination (being under the influence) was, in essence, pretextual. It was therefore incumbent upon him to present at his hearing any facts or theories supporting his contention that he had been unfairly or *890 disparately punished, including any evidence of age or race discrimination. Had Basurto presented evidence of discriminatory policies or practices by the District, the outcome of the administrative hearing might have been different. (*Takahashi, supra*, 202 Cal.App.3d at p. 1477, 249 Cal.Rptr. 578 [if plaintiff had raised and proved her defenses at the commission hearing, her termination would have been judged wrongful, and she then could have sought in court the damages to which she was entitled, but which the commission had no authority to award].)

In short, the issue whether Basurto's termination was wrongful was actually litigated and necessarily decided by the District Board, when it determined that Basurto's conduct in violation of District policy justified his dismissal, and that he had not been treated differently than other employees in being terminated. (See *Sims, supra*, 32 Cal.3d at pp. 474, 481, 484–485, 186 Cal.Rptr. 77, 651 P.2d 321 [issue of welfare fraud was actually litigated before agency, even though the county failed to present evidence or otherwise participate at the hearing on the ground that the agency lacked jurisdiction: “The failure of a litigant to introduce relevant available evidence on an issue does not necessarily defeat a plea of collateral estoppel.”].)

2. The District Board's Administrative Findings Are Final and Binding

The remaining threshold requirement for the application of collateral estoppel is that the administrative determination must be final and on the merits. (*Lucido, supra*, 51 Cal.3d at p. 341, 272 Cal.Rptr. 767, 795 P.2d 1223.) This inquiry

necessarily implicates the judicial process by which Basurto unsuccessfully attempted to have the District Board's findings set aside, and so we now address whether that process was fully exhausted and finalized. For purposes of this discussion, we concern ourselves only with Basurto's second petition for writ of mandate and the trial court's ruling thereon.

Basurto's second writ petition did not challenge the merits of the District Board's findings, or contend that they were not supported by the weight of the evidence. Rather, Basurto challenged only what he contended were procedural deficiencies of the District's internal complaint process and the alleged inherent impartiality of the District Board, explicitly with the intent of avoiding the collateral estoppel effect of the District Board's decision on his claims for damages—a result that otherwise would be mandated by the *Johnson* decision. The trial court denied his petition on the ground that Basurto had failed to raise these issues at his hearing and therefore waived them. Although Basurto sought review of that order by means of a petition for writ of mandate to this court, we denied that petition on the ground that Basurto had an adequate remedy on appeal. Accordingly, the only remaining means by which Basurto could have set aside the District Board's administrative findings and prevented them from becoming final and binding under *891 *Johnson* would have been to challenge the trial court's denial of the second writ petition on this appeal. (See, e.g., *Castillo, supra*, 92 Cal.App.4th at pp. 482–483, 111 Cal.Rptr.2d 870 [administrative agency's decision is final when the trial court denied the petition for writ **166 of mandate and the time to appeal that denial passed].)

Yet, in his opening brief on this appeal, Basurto all but explicitly disclaims any intent to appeal the trial court's denial of his second writ petition. Instead, Basurto asserts that this appeal presents one “focused issue: Did [the District] establish that its grievance procedure had a judicial character with safeguards sufficient for it to qualify it as the basis for collateral estoppel or *res judicata*.” Indeed, Basurto's opening brief is dedicated exclusively to explaining why the District had failed to meet its burden on summary judgment of demonstrating the adequacy of the District's internal procedures. Not surprisingly, therefore, the District asserts in its responding brief that Basurto failed to appeal the trial court's denial of his second writ petition. However, contrary to his earlier statements expressly limiting the scope of his appeal, Basurto argues in his reply brief that the trial court's denial of his second writ petition is now ripe for review, and suggests that there is no legal justification for the trial court's

conclusion that he waived his right to challenge the District Board's findings on due process or bias grounds.

Basurto is correct in pointing out that we previously declined to review the order denying his second writ petition on the ground that Basurto had an adequate remedy by way of appeal. He is also correct that we have the authority to review that interlocutory order upon appeal from the trial court's judgment. (See [Code Civ. Proc., § 906](#).) The question whether a particular order is appealable, however, is different than the question whether a party has properly presented an issue for review on appeal. Under basic principles of appellate review, we generally will not consider substantive legal arguments raised for the first time in the reply brief. (See, e.g., Eisenberg et al., *Cal. Practice Guide: Civil Appeals and Writs* (The Rutter Group 2012) ¶ 9.78, p. 9-27 (rev. # 1, 2012); [Shade Foods, Inc. v. Innovative Products Sales & Marketing, Inc.](#) (2000) 78 Cal.App.4th 847, 894, fn. 10, 93 Cal.Rptr.2d 364.) Basurto all but expressly abandoned any challenge he might have to the District Board's administrative findings in his opening brief. Although he sought to revive that issue in his reply brief, he offered no explanation and provided no good cause for his failure to address those arguments earlier.

The reason for Basurto's vacillation on this issue may be his dissatisfaction with the District's administrative process, as evidenced by a number of comments made in his briefs in the trial court and on appeal. Indeed, the very fact that Basurto petitioned for mandamus relief solely to avoid the collateral estoppel effect of the District Board's ruling, and not to challenge that ruling *892 as lacking evidentiary support, reflects his view that the District's administrative process is a “ ‘procedural minefield,’ ” a “gauntlet,” and a “Serbonian bog of exhaustion of administrative remedies.” Basurto apparently viewed more favorably his chances of success in a court of law, and since the adverse District Board ruling, consistently has followed a strategy of merely “going through the motions” of exhausting his administrative and judicial remedies, pinning his hopes on ultimately being able to avail himself of legal recourse.

Basurto was not required to seek relief by means of the District's internal procedures, but having chosen to do so, he is not free to merely abandon that process without consequence. Because Basurto failed to properly appeal the trial court's denial of his second writ petition, the District Board's decision is now final. (See [Johnson, supra](#), 24 Cal.4th at p. 69, 99 Cal.Rptr.2d 316, 5 P.3d 874 [the administrative finding that plaintiff was laid off for **167 economic, not

discriminatory, reasons became final when plaintiff failed to timely challenge that finding in superior court]; [Castillo, supra](#), 92 Cal.App.4th at pp. 482–483, 111 Cal.Rptr.2d 870 [administrative decision became final when trial court denied writ petition and the time for appeal of that denial passed]; [Briggs v. City of Rolling Hills Estates](#) (1995) 40 Cal.App.4th 637, 646, 47 Cal.Rptr.2d 29 [noting that administrative agency's decision “achieve[s] finality” when the aggrieved party fails “to pursue the exclusive *judicial* remedy for reviewing administrative action”].)⁶ Furthermore, the District Board's determination was “on the merits” because, as previously explained, “it followed a ‘full hearing’ in which ‘the substance of the claim [was] tried and determined.’ ” [Citation.]” ([Castillo, supra](#), 92 Cal.App.4th at p. 483, 111 Cal.Rptr.2d 870.)

⁶ Although this conclusion renders unnecessary our review of the correctness of the trial court's determination that Basurto had waived his due process and bias claims, we find no merit to Basurto's contention that there was no specific procedure by which he could have raised these issues at his hearing. Nothing prevented him from doing so, and in fact, his counsel recognized at the outset of the hearing that “it [was] incumbent upon [Basurto] to raise objections which normally would be raised in a court of law.” The prehearing exchange of letters between Basurto's and the District's outside counsel was insufficient, as the substance of those letters was never brought to the District Board's attention. The case law consistently shows that due process and bias issues must be presented to the hearing officer or tribunal itself for the issue to be preserved. (See, e.g., [Morongo Band of Mission Indians v. State Water Resources Control Bd.](#) (2009) 45 Cal.4th 731, 734–735, 88 Cal.Rptr.3d 610, 199 P.3d 1142 [Morongo petitioned the board for disqualification of enforcement team before the hearing, and after the hearing officer denied the petition, sought reconsideration by the board]; [Haas v. County of San Bernadino](#) (2002) 27 Cal.4th 1017, 1021, 119 Cal.Rptr.2d 341, 45 P.3d 280 [impartiality objections were raised prior to and renewed at the hearing].) Further, counsel's passing reference in his opening statement to Basurto's impartiality concerns was insufficient to squarely raise the issue of potential bias. “The mere allegation of bias in [an administrative hearing] without any evidence to support [it]” is not enough. ([Parker v. City of Fountain Valley](#) (1981) 127 Cal.App.3d 99, 117, 179 Cal.Rptr. 351.) In short, the trial court did not err in concluding Basurto had waived his due process and bias claims.

***893** 3. *Application of Collateral Estoppel in This Case Furthers the Policies Underlying the Doctrine*

We must also consider whether giving estoppel effect to the District Board's decision in this case would be consistent with the policy considerations enumerated in *Lucido*. (See [Lucido, supra](#), 51 Cal.3d at 343, 272 Cal.Rptr. 767, 795 P.2d 1223.) We conclude that barring Basurto's civil damages claims would be consistent with those policies.

Fundamentally, giving estoppel effect to an appropriate, quasi-judicial administrative decision “accords a proper respect” to an agency's internal procedures, which provide a means for the agency to quickly determine if it has committed error, and if so, “to minimize, and sometimes eliminate, any monetary injury to the plaintiff by immediately reversing its initial decision.” (*Westlake Community Hospital v. Superior Court, supra*, 17 Cal.3d at p. 476, 484, 131 Cal.Rptr. 90, 551 P.2d 410.) In *Sims*, the Supreme Court recognized that “[g]iving conclusive effect” to such an agency decision “would promote judicial economy by minimizing repetitive litigation.” (*Sims, supra*, 32 Cal.3d at p. 488, 186 Cal.Rptr. 77, 651 P.2d 321.) In contrast, permitting relitigation of issues that a party already has had a full and fair opportunity to litigate would “substantially diminish[]” the value of the administrative process. (*Ibid.*; see also [Castillo, supra](#), 92 Cal.App.4th at p. 483, 111 Cal.Rptr.2d 870.) ****168** Indeed, as the Supreme Court emphasized in *Johnson*, “Refusing to give binding effect to the findings of administrative agencies in quasi-judicial proceedings would ... undermine the efficacy of such proceedings, rendering them in many cases little more than rehearsals for litigation.” (*Johnson, supra*, 24 Cal.4th at p. 72, 99 Cal.Rptr.2d 316, 5 P.3d 874.)

These considerations apply with equal force here. As explained, Basurto chose to avail himself of the District's internal grievance procedure, and he was provided with an adequate opportunity to present evidence at his hearing of every fact or theory he believed supported his contention that his discharge was wrongful. Had he taken full advantage of that opportunity, the District would have been required to consider his age and race discrimination claims. Instead, Basurto sat on his rights, and he did so even though he had first prevailed in his efforts to compel the District to hold a more thorough evidentiary and adversarial hearing than he was given initially. The *Takahashi* court put the matter succinctly, in addressing similar issues underlying a res judicata analysis:

“There can be no justification for plaintiff's position that she should be permitted to fail to assert at the administrative

hearing constitutional and civil rights violations as reasons that made her termination wrongful, fail to prevail on the writ without attempting to urge or to bring before the court those reasons, and then be allowed to recover damages in this consolidated action that resulted from termination of her employment alleged to be wrongful based on those same reasons.”

(***894** [Takahashi, supra](#), 202 Cal.App.3d at p. 1485, 249 Cal.Rptr. 578.) “It is just such a case as this in which such allegations must be brought at the earliest opportunity, in this case before the [District Board], so that the matter can be resolved.” (*Ibid.*)

We hold that, in light of these policy considerations, and for the reasons set forth earlier in this opinion, collateral estoppel effect is properly applied to the District Board's July 2007 administrative decision concluding that Basurto's discharge was consistent with the District's policies and supported by the weight of the evidence. Under *Johnson*, that determination is final and conclusive as to Basurto's FEHA discrimination and breach of contract claims, in that the District has proven that Basurto's discharge was for nondiscriminatory reasons and for good cause. (See [Johnson, supra](#), 24 Cal.4th at p. 76, 99 Cal.Rptr.2d 316, 5 P.3d 874; see also *id.* at p. 71, 99 Cal.Rptr.2d 316, 5 P.3d 874 [since plaintiff's FEHA claim “that his discharge was for discriminatory reasons [was] at odds with the preceding determination by the City that the termination was for economic reasons,” the administrative finding, because it was final and binding, barred plaintiff's pursuit of relief under FEHA].) The trial court's order granting summary judgment to the District on this ground is, accordingly, affirmed.⁷

⁷ Because our holding on the collateral estoppel issue itself is sufficient to affirm the trial court's judgment, we do not decide whether the judgment would also be correct on res judicata grounds. We note, however, that given our discussion here, the decision in [Takahashi, supra](#), 202 Cal.App.3d 1464, 249 Cal.Rptr. 578, would likely control any res judicata analysis and compel the same result. (*Id.* at pp. 1476–1477, 1481–1485, 249 Cal.Rptr. 578.)

F. *Basurto's Remaining Contentions Do Not Merit Discussion*

Finally, we briefly address, and dismiss, Basurto's contentions that the District ****169** failed to comply precisely with the format requirements for summary judgment motions as set

forth in [Code of Civil Procedure section 437c](#) and [California Rules of Court, rule 3.1350](#). His argument is essentially a “defense” of the trial court's decision not to rule on any of the District's summary judgment or summary adjudication arguments other than collateral estoppel and res judicata. The trial court's decision not to address these other issues rested not on any procedural deficiency in the District's submissions, but rather, as the court explained, on its conclusion that resolution of these matters was unnecessary to its decision. Since Basurto has neither asked us to reverse on this ground, nor cited authority suggesting reversal is required on this ground, we do not consider these contentions here. (See, e.g., [Cahill v. San Diego Gas & Electric Co. \(2011\) 194 Cal.App.4th 939, 956, 124 Cal.Rptr.3d 78](#) [“ ‘ “When an appellant fails to raise a point, or asserts it but fails to support it with reasoned argument and citations to authority, we treat the point as waived.” ’ [Citation.] ‘We are not bound to develop appellants' arguments for them.’ ”].)

***895 DISPOSITION**

The judgment is affirmed. Respondent may recover its costs on appeal.

WE CONCUR:

[HUFFMAN](#), Acting P. J.

[O'ROURKE](#), J.

All Citations

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114 S.Ct. 1900
Supreme Court of the United States

PUD NO. 1 OF JEFFERSON COUNTY
and City of Tacoma, Petitioners
v.
WASHINGTON DEPARTMENT
OF ECOLOGY et al.

No. 92–1911.

|
Argued Feb. 23, 1994.

|
Decided May 31, 1994.

Synopsis

City and local utility district appealed Washington State Department of Ecology's imposition of minimum stream flow rates as part of certification requirements under Federal Clean Water Act for building hydroelectric power plant. The Pollution Control Hearings Board reversed flow rate set by Department, and parties cross-appealed. The Superior Court, Thurston County, Carol A. Fuller, J., ruled that Department was not preempted from setting minimum stream flows. [City moved for direct review. The Supreme Court, 121 Wash.2d 179, 849 P.2d 646](#), affirmed. On petition for certiorari, the Supreme Court of the United States, Justice [O'Connor](#), held that: (1) states could condition certification of project on any limitations necessary to ensure compliance with state water quality standards or other appropriate requirements of state law; (2) minimum flow condition was appropriate requirement of state law; and (3) state's authority to impose minimum flow requirements would not be limited on theory that it interfered with Federal Energy Regulatory Commission's authority to license hydroelectric projects.

Affirmed.

Justice [Stevens](#) filed a concurring opinion.

Justice [Thomas](#) filed a dissenting opinion in which Justice [Scalia](#) joined.

1903 *Syllabus

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— The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See [United States v. Detroit Lumber Co.](#), 200 U.S. 321, 337, 26 S.Ct. 282, 287, 50 L.Ed. 499.

*700 Section 303 of the Clean Water Act requires each State, subject to federal approval, to institute comprehensive standards establishing water quality goals for all intrastate waters, and requires that such standards “consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.” Under Environmental Protection Agency (EPA) regulations, the standards must also include an antidegradation policy to ensure that “[e]xisting instream water uses and the level of water quality necessary to protect [those] uses [are] maintained and protected.” States are required by § 401 of the Act to provide a water quality certification before a federal license or permit can be issued for any activity that may result in a discharge into intrastate navigable waters. As relevant here, the certification must “set forth any effluent limitations and other limitations ... necessary to assure that any applicant” will comply with various provisions of the Act and “any other appropriate” state law requirement. § 401(d). Under Washington's comprehensive water quality standards, characteristic uses of waters classified as Class AA include fish migration, rearing, and spawning. Petitioners, a city and a local utility district, want to build a hydroelectric project on the Dosewallips **1904 River, a Class AA water, which would reduce the water flow in the relevant part of the river to a minimal residual flow of between 65 and 155 cubic feet per second (cfs). In order to protect the river's fishery, respondent state environmental agency issued a § 401 certification imposing, among other things, a minimum stream flow requirement of between 100 and 200 cfs. A state administrative appeals board ruled that the certification condition exceeded respondent's authority under state law, but the State Superior Court reversed. The State Supreme Court affirmed, holding that the antidegradation provisions of the State's water quality standards require the imposition of minimum stream flows, and that § 401 authorized the stream flow condition and conferred on States power to consider all state action related to water quality in imposing conditions on § 401 certificates.

Held: Washington's minimum stream flow requirement is a permissible condition of a § 401 certification. Pp. 1908–1914.

***701 a) A State may impose conditions on certifications insofar as necessary to enforce a designated use contained in the State's water quality standard. Petitioners' claim that the State may only impose water quality limitations specifically tied to a "discharge" is contradicted by § 401(d)'s reference to an applicant's compliance, which allows a State to impose "other limitations" on a project. This view is consistent with EPA regulations providing that activities—not merely discharges—must comply with state water quality standards, a reasonable interpretation of § 401 which is entitled to deference. State standards adopted pursuant to § 303 are among the "other limitations" with which a State may ensure compliance through the § 401 certification process. Although § 303 is not specifically listed in § 401(d), the statute allows States to impose limitations to ensure compliance with § 301 of the Act, and § 301 in turn incorporates § 303 by reference. EPA's view supports this interpretation. Such limitations are also permitted by § 401(d)'s reference to "any other appropriate" state law requirement. Pp. 1908–1910.

(b) Washington's requirement is a limitation necessary to enforce the designated use of the river as a fish habitat. Petitioners err in asserting that § 303 requires States to protect such uses solely through implementation of specific numerical "criteria." The section's language makes it plain that water quality standards contain two components and is most naturally read to require that a project be consistent with both: the designated use and the water quality criteria. EPA has not interpreted § 303 to require the States to protect designated uses exclusively through enforcement of numerical criteria. Moreover, the Act permits enforcement of broad, narrative criteria based on, for example, "aesthetics." There is no anomaly in the State's reliance on both use designations and criteria to protect water quality. Rather, it is petitioners' reading that leads to an unreasonable interpretation of the Act, since specified criteria cannot reasonably be expected to anticipate all the water quality issues arising from every activity that can affect a State's hundreds of individual water bodies. Washington's requirement also is a proper application of the state and federal antidegradation regulations, as it ensures that an existing instream water use will be "maintained and protected." Pp. 1910–1912.

(c) Petitioners' assertion that the Act is only concerned with water quality, not quantity, makes an artificial distinction, since a sufficient lowering of quantity could destroy all of a river's designated uses, and since the Act recognizes that reduced stream flow can constitute water pollution.

Moreover, §§ 101(g) and 510(2) of the Act do not limit the scope of water pollution controls that may be imposed on users who have obtained, pursuant to state law, a water allocation. Those provisions preserve each State's authority to allocate water quantity as between ***702 users, but the § 401 certification does not purport to determine petitioners' proprietary right to the river's water. In addition, the Court is unwilling to read implied limitations into § 401 based on petitioners' claim that a conflict exists between the condition's imposition and the Federal Energy Regulatory Commission's authority to license hydroelectric **1905 projects under the Federal Power Act, since FERC has not yet acted on petitioners' license application and since § 401's certification requirement also applies to other statutes and regulatory schemes. Pp. 1912–1914.

[121 Wash.2d 179, 849 P.2d 646 \(1992\)](#), affirmed.

[O'CONNOR](#), J., delivered the opinion of the Court, in which [REHNQUIST](#), C.J., and [BLACKMUN](#), [STEVENS](#), [KENNEDY](#), [SOUTER](#), and [GINSBURG](#), JJ., joined. [STEVENS](#), J., filed a concurring opinion, *post*, p. 1914. [THOMAS](#), J., filed a dissenting opinion, in which [SCALIA](#), J., joined, *post*, p. 1915.

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Opinion

***703 Justice [O'CONNOR](#) delivered the opinion of the Court.

Petitioners, a city and a local utility district, want to build a hydroelectric project on the Dosewallips River in Washington State. We must decide whether respondent state environmental agency (hereinafter respondent) properly conditioned a permit for the project on the maintenance of specific minimum stream flows to protect salmon and steelhead runs.

***704 I

This case involves the complex statutory and regulatory scheme that governs our Nation's waters, a scheme that implicates both federal and state administrative responsibilities. The Federal Water Pollution Control Act, commonly known as the Clean Water Act, 86 Stat. 816, as amended, [33 U.S.C. § 1251 et seq.](#), is a comprehensive water quality statute designed to “restore and maintain the chemical, physical, and biological integrity of the Nation's waters.” [§ 1251\(a\)](#). The Act also seeks to attain “water quality which provides for the protection and propagation of fish, shellfish, and wildlife.” [§ 1251\(a\)\(2\)](#).

To achieve these ambitious goals, the Clean Water Act establishes distinct roles for the Federal and State Governments. Under the Act, the Administrator of the Environmental Protection Agency (EPA) is required, among other things, to establish and enforce technology-based limitations on individual discharges into the country's navigable waters from point sources. See [§§ 1311, 1314](#). Section 303 of the Act also requires each State, subject to federal approval, to institute comprehensive water quality standards establishing water quality goals for all intrastate waters. [§§ 1311\(b\)\(1\)\(C\), 1313](#). These state water quality standards provide “a supplementary basis ... so that numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels.” *EPA v. California ex rel. State Water Resources Control Bd.*, 426 U.S. 200, 205, n. 12, 96 S.Ct. 2022, 2025, n. 12, 48 L.Ed.2d 578 (1976).

A state water quality standard “shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.” [33 U.S.C. § 1313\(c\)\(2\)\(A\)](#). In setting standards, the State must comply with the following broad requirements:

“Such standards shall be such as to protect the public health or welfare, enhance the quality of water and ***705 serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational [and other purposes.]” *Ibid*.

See also [§ 1251\(a\)\(2\)](#).

A 1987 amendment to the Clean Water Act makes clear that § 303 also contains an “antidegradation policy”—that is, a policy requiring **1906 that state standards be sufficient to maintain existing beneficial uses of navigable waters, preventing their further degradation. Specifically, the Act permits the revision of certain effluent limitations or

water quality standards “only if such revision is subject to and consistent with the antidegradation policy established under this section.” [§ 1313\(d\)\(4\)\(B\)](#). Accordingly, EPA's regulations implementing the Act require that state water quality standards include “a statewide antidegradation policy” to ensure that “[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.” [40 CFR § 131.12 \(1993\)](#). At a minimum, state water quality standards must satisfy these conditions. The Act also allows States to impose more stringent water quality controls. See [33 U.S.C. §§ 1311\(b\)\(1\)\(C\), 1370](#). See also [40 CFR § 131.4\(a\) \(1993\)](#) (“As recognized by section 510 of the Clean Water Act [[33 U.S.C. § 1370](#)], States may develop water quality standards more stringent than required by this regulation”).

The State of Washington has adopted comprehensive water quality standards intended to regulate all of the State's navigable waters. See Washington Administrative Code (WAC) 173–201–010 to 173–201–120 (1986). The State created an inventory of all the State's waters, and divided the waters into five classes. 173–201–045. Each individual fresh surface water of the State is placed into one of these classes. 173–201–080. The Dosewallips River is classified AA, extraordinary. 173–201–080(32). The water quality ***706 standard for Class AA waters is set forth at 173–201–045(1). The standard identifies the designated uses of Class AA waters as well as the criteria applicable to such waters.¹

- ¹ WAC 173–201–045(1) (1986) provides in pertinent part:
- “(1) **Class AA (extraordinary).**
 - “(a) General characteristic. Water quality of this class shall markedly and uniformly exceed the requirements for all or substantially all uses.
 - “(b) Characteristic uses. Characteristic uses shall include, but not be limited to, the following:
 - “(i) Water supply (domestic, industrial, agricultural).
 - “(ii) Stock watering.
 - “(iii) Fish and shellfish:
 - Salmonid migration, rearing, spawning, and harvesting.
 - Other fish migration, rearing, spawning, and harvesting.
 -
 - “(iv) Wildlife habitat.
 - “(v) Recreation (primary contact recreation, sport fishing, boating, and aesthetic enjoyment).
 - “(vi) Commerce and navigation.
 - “(c) Water quality criteria

- “(i) Fecal coliform organisms.
- “(A) Freshwater—fecal coliform organisms shall not exceed a geometric mean value of 50 organisms/100 mL, with not more than 10 percent of samples exceeding 100 organisms/100 mL.
- “(B) Marine water—fecal coliform organisms shall not exceed a geometric mean value of 14 organisms/100 mL, with not more than 10 percent of samples exceeding 43 organisms/100 mL.
- “(ii) Dissolved oxygen [shall exceed specific amounts].
.....
- “(iii) Total dissolved gas shall not exceed 110 percent of saturation at any point of sample collection.
- “(vi) Temperature shall not exceed [certain levels].
.....
- “(v) pH shall be within [a specified range].
- “(vi) Turbidity shall not exceed [specific levels].
- “(vii) Toxic, radioactive, or deleterious material concentrations shall be less than those which may affect public health, the natural aquatic environment, or the desirability of the water for any use.
- “(viii) Aesthetic values shall not be impaired by the presence of materials or their effects, excluding those of natural origin, which offend the senses of sight, smell, touch, or taste.”

***707 In addition to these specific standards applicable to Class AA waters, the State has adopted a statewide antidegradation policy. That policy provides:

“(a) Existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses will be allowed.

“(b) No degradation will be allowed of waters lying in national parks, national recreation areas, national wildlife refuges, national scenic rivers, and other areas of national ecological importance.

.....

“(f) In no case, will any degradation of water quality be allowed if this degradation interferes with or becomes injurious to existing water uses and causes long-term ***1907 and irreparable harm to the environment.” 173–201–035(8).

As required by the Act, EPA reviewed and approved the State's water quality standards. See [33 U.S.C. § 1313\(c\)\(3\)](#); [42 Fed.Reg. 56792 \(1977\)](#). Upon approval by EPA, the state standard became “the water quality standard for the applicable waters of that State.” [33 U.S.C. § 1313\(c\)\(3\)](#).

States are responsible for enforcing water quality standards on intrastate waters. § 1319(a). In addition to these primary enforcement responsibilities, § 401 of the Act requires States to provide a water quality certification before a federal license or permit can be issued for activities that may result in any discharge into intrastate navigable waters. [33 U.S.C. § 1341](#). Specifically, § 401 requires an applicant for a federal license or permit to conduct any activity “which may result in any discharge into the navigable waters” to obtain from the State a certification “that any such discharge will comply with the applicable provisions of sections [1311, 1312, 1313, 1316, and 1317 of this title].” [33 U.S.C. § 1341\(a\)](#). Section 401(d) further provides that “[a]ny certification ***708 ... shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant ... will comply with any applicable effluent limitations and other limitations, under section [1311 or 1312 of this title] ... and with any other appropriate requirement of State law set forth in such certification.” [33 U.S.C. § 1341\(d\)](#). The limitations included in the certification become a condition on any federal license. *Ibid.*²

² Section 401, as set forth in [33 U.S.C. § 1341](#), provides in relevant part:

“(a) Compliance with applicable requirements; application; procedures; license suspension

“(1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State ... that any such discharge will comply with the applicable provisions of [sections 1311, 1312, 1313, 1316, and 1317](#) of this title.

.....

“(d) Limitations and monitoring requirements of certification

“Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under [section 1311](#) or [1312](#) of this title, standard of performance under [section 1316](#) of this title, or prohibition, effluent standard, or pretreatment standard under [section 1317](#) of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.”

II

Petitioners propose to build the Elkhorn Hydroelectric Project on the Dosewallips River. If constructed as presently planned, the facility would be located just outside the Olympic National Park on federally owned land within the Olympic National Forest. The project would divert water from a 1.2-mile reach of the river (the bypass reach), run the ***709 water through turbines to generate electricity and then return the water to the river below the bypass reach. Under the Federal Power Act (FPA), 41 Stat. 1063, as amended, [16 U.S.C. § 791a et seq.](#), the Federal Energy Regulatory Commission (FERC) has authority to license new hydroelectric facilities. As a result, petitioners must get a FERC license to build or operate the Elkhorn Project. Because a federal license is required, and because the project may result in discharges into the Dosewallips River, petitioners are also required to obtain state certification of the project pursuant to § 401 of the Clean Water Act, [33 U.S.C. § 1341](#).

The water flow in the bypass reach, which is currently undiminished by appropriation, ranges seasonally between 149 and 738 cubic feet per second (cfs). The Dosewallips supports two species of salmon, coho and chinook, as well as steelhead trout. As originally proposed, the project was to include a diversion dam which would completely block **1908 the river and channel approximately 75% of the river's water into a tunnel alongside the streambed. About 25% of the water would remain in the bypass reach, but would be returned to the original riverbed through sluice gates or a fish ladder. Depending on the season, this would leave a residual minimum flow of between 65 and 155 cfs in the river. Respondent undertook a study to determine the minimum stream flows necessary to protect the salmon and steelhead fishery in the bypass reach. On June 11, 1986, respondent issued a § 401 water quality certification imposing a variety of conditions on the project, including a minimum stream flow requirement of between 100 and 200 cfs depending on the season.

A state administrative appeals board determined that the minimum flow requirement was intended to enhance, not merely maintain, the fishery, and that the certification condition therefore exceeded respondent's authority under state law. App. to Pet. for Cert. 55a–57a. On appeal, the ***710 State Superior Court concluded that respondent could require compliance with the minimum flow conditions. *Id.*, at 29a–45a. The Superior Court also found that respondent

had imposed the minimum flow requirement to protect and preserve the fishery, not to improve it, and that this requirement was authorized by state law. *Id.*, at 34a.

The Washington Supreme Court held that the antidegradation provisions of the State's water quality standards require the imposition of minimum stream flows. [121 Wash.2d 179, 186–187, 849 P.2d 646, 650 \(1993\)](#). The court also found that § 401(d), which allows States to impose conditions based upon several enumerated sections of the Clean Water Act and “any other appropriate requirement of State law,” [33 U.S.C. § 1341\(d\)](#), authorized the stream flow condition. Relying on this language and the broad purposes of the Clean Water Act, the court concluded that § 401(d) confers on States power to “consider all state action related to water quality in imposing conditions on section 401 certificates.” [121 Wash.2d, at 192, 849 P.2d, at 652](#). We granted certiorari, [510 U.S. 810, 114 S.Ct. 55, 126 L.Ed.2d 25 \(1993\)](#), to resolve a conflict among the state courts of last resort. See [121 Wash.2d 179, 849 P.2d 646 \(1993\)](#); [Georgia Pacific Corp. v. Dept. of Environmental Conservation](#), 159 Vt. 639, 628 A.2d 944 (1992) (table); [Power Authority of New York v. Williams](#), 60 N.Y.2d 315, 469 N.Y.S.2d 620, 457 N.E.2d 726 (1983). We now affirm.

III

The principal dispute in this case concerns whether the minimum stream flow requirement that the State imposed on the Elkhorn Project is a permissible condition of a § 401 certification under the Clean Water Act. To resolve this dispute we must first determine the scope of the State's authority under § 401. We must then determine whether the limitation at issue here, the requirement that petitioners maintain minimum stream flows, falls within the scope of that authority.

***711 A

There is no dispute that petitioners were required to obtain a certification from the State pursuant to § 401. Petitioners concede that, at a minimum, the project will result in two possible discharges—the release of dredged and fill material during the construction of the project, and the discharge of water at the end of the tailrace after the water has been used to generate electricity. Brief for Petitioners 27–28. Petitioners contend, however, that the minimum stream flow requirement imposed by the State was unrelated to these

specific discharges, and that as a consequence, the State lacked the authority under § 401 to condition its certification on maintenance of stream flows sufficient to protect the Dosewallips fishery.

If § 401 consisted solely of subsection (a), which refers to a state certification that a “discharge” will comply with certain provisions of the Act, petitioners’ assessment of the scope of the State’s certification authority would have considerable force. Section 401, however, also contains subsection (d), which expands the State’s authority to impose conditions on the certification of a ****1909** project. Section 401(d) provides that any certification shall set forth “any effluent limitations and other limitations ... necessary to assure that *any applicant*” will comply with various provisions of the Act and appropriate state law requirements. [33 U.S.C. § 1341\(d\)](#) (emphasis added). The language of this subsection contradicts petitioners’ claim that the State may only impose water quality limitations specifically tied to a “discharge.” The text refers to the compliance of the applicant, not the discharge. Section 401(d) thus allows the State to impose “other limitations” on the project in general to assure compliance with various provisions of the Clean Water Act and with “any other appropriate requirement of State law.” Although the dissent asserts that this interpretation of § 401(d) renders § 401(a)(1) superfluous, *post*, at 1916, we see no such anomaly. Section 401(a)(1) identifies the category of activities *****712** subject to certification—namely, those with discharges. And § 401(d) is most reasonably read as authorizing additional conditions and limitations on the activity as a whole once the threshold condition, the existence of a discharge, is satisfied.

Our view of the statute is consistent with EPA’s regulations implementing § 401. The regulations expressly interpret § 401 as requiring the State to find that “there is a reasonable assurance that the *activity* will be conducted in a manner which will not violate applicable water quality standards.” [40 CFR § 121.2\(a\)\(3\) \(1993\)](#) (emphasis added). See also EPA, Wetlands and 401 Certification 23 (Apr.1989) (“In 401(d), the Congress has given the States the authority to place any conditions on a water quality certification that are necessary to assure that the applicant will comply with effluent limitations, water quality standards, ... and with ‘any other appropriate requirement of State law’”). EPA’s conclusion that *activities*—not merely discharges—must comply with state water quality standards is a reasonable interpretation of § 401, and is entitled to deference. See, e.g., [Arkansas v. Oklahoma, 503 U.S. 91, 110, 112 S.Ct. 1046, 1059, 117 L.Ed.2d 239 \(1992\)](#);

[Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 104 S.Ct. 2778, 81 L.Ed.2d 694 \(1984\)](#).

Although § 401(d) authorizes the State to place restrictions on the activity as a whole, that authority is not unbounded. The State can only ensure that the project complies with “any applicable effluent limitations and other limitations, under [[33 U.S.C. §§ 1311, 1312](#)]” or certain other provisions of the Act, “and with any other appropriate requirement of State law.” [33 U.S.C. § 1341\(d\)](#). The State asserts that the minimum stream flow requirement was imposed to ensure compliance with the state water quality standards adopted pursuant to § 303 of the Clean Water Act, [33 U.S.C. § 1313](#).

We agree with the State that ensuring compliance with § 303 is a proper function of the § 401 certification. Although § 303 is not one of the statutory provisions listed in § 401(d), *****713** the statute allows States to impose limitations to ensure compliance with § 301 of the Act, [33 U.S.C. § 1311](#). Section 301 in turn incorporates § 303 by reference. See [33 U.S.C. § 1311\(b\)\(1\)\(C\)](#); see also [H.R.Conf.Rep. No. 95–830, p. 96](#) (1977), U.S. Code Cong. & Admin. News 1977, pp. 4326, 4471 (“Section 303 is always included by reference where section 301 is listed”). As a consequence, state water quality standards adopted pursuant to § 303 are among the “other limitations” with which a State may ensure compliance through the § 401 certification process. This interpretation is consistent with EPA’s view of the statute. See [40 CFR § 121.2\(a\)\(3\) \(1992\)](#); EPA, Wetlands and 401 Certification, *supra*. Moreover, limitations to assure compliance with state water quality standards are also permitted by § 401(d)’s reference to “any other appropriate requirement of State law.” We do not speculate on what additional state laws, if any, might be incorporated by this language.³ ****1910** But at a minimum, limitations imposed pursuant to state water quality standards adopted pursuant to § 303 are “appropriate” requirements of state law. Indeed, petitioners appear to agree that the State’s authority under § 401 includes limitations designed to ensure compliance with state water quality standards. Brief for Petitioners 9, 21.

³ The dissent asserts that § 301 is concerned solely with discharges, not broader water quality standards. *Post*, at 1918, n. 2. Although § 301 does make certain discharges unlawful, see [33 U.S.C. § 1311\(a\)](#), it also contains a broad enabling provision which requires States to take certain actions, to wit: “In order to carry out the objective of this chapter [viz. the chemical, physical, and biological integrity of the Nation’s water] there shall

be achieved ... not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards, ... established pursuant to any State law or regulations....” [33 U.S.C. § 1311\(b\)\(1\)\(C\)](#). This provision of § 301 expressly refers to state water quality standards, and is not limited to discharges.

B

Having concluded that, pursuant to § 401, States may condition certification upon any limitations necessary to ensure ***714 compliance with state water quality standards or any other “appropriate requirement of State law,” we consider whether the minimum flow condition is such a limitation. Under § 303, state water quality standards must “consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.” [33 U.S.C. § 1313\(c\)\(2\)\(A\)](#). In imposing the minimum stream flow requirement, the State determined that construction and operation of the project as planned would be inconsistent with one of the designated uses of Class AA water, namely “[s]almonid [and other fish] migration, rearing, spawning, and harvesting.” App. to Pet. for Cert. 83a–84a. The designated use of the river as a fish habitat directly reflects the Clean Water Act’s goal of maintaining the “chemical, physical, and biological integrity of the Nation’s waters.” [33 U.S.C. § 1251\(a\)](#). Indeed, the Act defines pollution as “the man-made or man induced alteration of the chemical, physical, biological, and radiological integrity of water.” [§ 1362\(19\)](#). Moreover, the Act expressly requires that, in adopting water quality standards, the State must take into consideration the use of waters for “propagation of fish and wildlife.” [§ 1313\(c\)\(2\)\(A\)](#).

Petitioners assert, however, that § 303 requires the State to protect designated uses solely through implementation of specific “criteria.” According to petitioners, the State may not require them to operate their dam in a manner consistent with a designated “use”; instead, say petitioners, under § 303 the State may only require that the project comply with specific numerical “criteria.”

We disagree with petitioners’ interpretation of the language of § 303(c)(2)(A). Under the statute, a water quality standard must “consist of the designated uses of the navigable waters involved *and* the water quality criteria for such waters based upon such uses.” [33 U.S.C. § 1313\(c\)\(2\)\(A\)](#) (emphasis added). The text makes it plain that water quality standards contain two components. We think the language ***715

of § 303 is most naturally read to require that a project be consistent with *both* components, namely, the designated use *and* the water quality criteria. Accordingly, under the literal terms of the statute, a project that does not comply with a designated use of the water does not comply with the applicable water quality standards.

Consequently, pursuant to § 401(d) the State may require that a permit applicant comply with both the designated uses and the water quality criteria of the state standards. In granting certification pursuant to § 401(d), the State “shall set forth any ... limitations ... necessary to assure that [the applicant] will comply with any ... limitations under [§ 303] ... and with any other appropriate requirement of State law.” A certification requirement that an applicant operate the project consistently with state water quality standards—*i.e.*, consistently with the designated uses of the water body and the water quality criteria—is both a “limitation” to assure “compl[iance] with ... **1911 limitations” imposed under § 303, and an “appropriate” requirement of state law.

EPA has not interpreted § 303 to require the States to protect designated uses exclusively through enforcement of numerical criteria. In its regulations governing state water quality standards, EPA defines criteria as “*elements* of State water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use.” [40 CFR § 131.3\(b\) \(1993\)](#) (emphasis added). The regulations further provide that “[w]hen criteria are met, water quality will *generally* protect the designated use.” *Ibid.* (emphasis added). Thus, the EPA regulations implicitly recognize that in some circumstances, criteria alone are insufficient to protect a designated use.

Petitioners also appear to argue that use requirements are too open ended, and that the Act only contemplates enforcement of the more specific and objective “criteria.” But this argument is belied by the open-ended nature of the criteria ***716 themselves. As the Solicitor General points out, even “criteria” are often expressed in broad, narrative terms, such as “‘there shall be no discharge of toxic pollutants in toxic amounts.’” Brief for United States as *Amicus Curiae* 18. See [American Paper Institute, Inc. v. EPA, 996 F.2d 346, 349 \(CA DC 1993\)](#). In fact, under the Clean Water Act, only one class of criteria, those governing “toxic pollutants listed pursuant to [section 1317\(a\)\(1\)](#),” need be rendered in numerical form. See [33 U.S.C. § 1313\(c\)\(2\)\(B\)](#); [40 CFR § 131.11\(b\)\(2\) \(1993\)](#).

Washington's Class AA water quality standards are typical in that they contain several open-ended criteria which, like the use designation of the river as a fishery, must be translated into specific limitations for individual projects. For example, the standards state that “[t]oxic, radioactive, or deleterious material concentrations shall be less than those which may affect public health, the natural aquatic environment, or the desirability of the water for any use.” WAC 173–201–045(1)(c)(vii) (1986). Similarly, the state standards specify that “[a]esthetic values shall not be impaired by the presence of materials or their effects, excluding those of natural origin, which offend the senses of sight, smell, touch, or taste.” 173–201–045(1)(c)(viii). We think petitioners' attempt to distinguish between uses and criteria loses much of its force in light of the fact that the Act permits enforcement of broad, narrative criteria based on, for example, “aesthetics.”

Petitioners further argue that enforcement of water quality standards through use designations renders the water quality criteria component of the standards irrelevant. We see no anomaly, however, in the State's reliance on both use designations and criteria to protect water quality. The specific numerical limitations embodied in the criteria are a convenient enforcement mechanism for identifying minimum water conditions which will generally achieve the requisite water quality. And, in most circumstances, satisfying the criteria will, as EPA recognizes, be sufficient to maintain the ***717 designated use. See [40 CFR § 131.3\(b\) \(1993\)](#). Water quality standards, however, apply to an entire class of water, a class which contains numerous individual water bodies. For example, in the State of Washington, the Class AA water quality standard applies to 81 specified fresh surface waters, as well as to all “surface waters lying within the mountainous regions of the state assigned to national parks, national forests, and/or wilderness areas,” all “lakes and their feeder streams within the state,” and all “unclassified surface waters that are tributaries to Class AA waters.” WAC 173–201–070 (1986). While enforcement of criteria will in general protect the uses of these diverse waters, a complementary requirement that activities also comport with designated uses enables the States to ensure that each activity—even if not foreseen by the criteria—will be consistent with the specific uses and attributes of a particular body of water.

Under petitioners' interpretation of the statute, however, if a particular criterion, such as turbidity, were missing from the list **1912 contained in an individual state water quality standard, or even if an existing turbidity criterion were

insufficient to protect a particular species of fish in a particular river, the State would nonetheless be forced to allow activities inconsistent with the existing or designated uses. We think petitioners' reading leads to an unreasonable interpretation of the Act. The criteria components of state water quality standards attempt to identify, for all the water bodies in a given class, water quality requirements generally sufficient to protect designated uses. These criteria, however, cannot reasonably be expected to anticipate all the water quality issues arising from every activity that can affect the State's hundreds of individual water bodies. Requiring the States to enforce only the criteria component of their water quality standards would in essence require the States to study to a level of great specificity each individual surface water to ensure that the criteria applicable to that water are sufficiently detailed and individualized to fully protect the ***718 water's designated uses. Given that there is no textual support for imposing this requirement, we are loath to attribute to Congress an intent to impose this heavy regulatory burden on the States.

The State also justified its minimum stream flow as necessary to implement the “antidegradation policy” of § 303, [33 U.S.C. § 1313\(d\)\(4\)\(B\)](#). When the Clean Water Act was enacted in 1972, the water quality standards of all 50 States had antidegradation provisions. These provisions were required by federal law. See U.S. Dept. of Interior, Federal Water Pollution Control Administration, Compendium of Department of Interior Statements on Non-degradation of Interstate Waters 1–2 (Aug. 1968); see also Hines, A Decade of Nondegradation Policy in Congress and the Courts: The Erratic Pursuit of Clean Air and Clean Water, 62 Iowa L.Rev. 643, 658–660 (1977). By providing in 1972 that existing state water quality standards would remain in force until revised, the Clean Water Act ensured that the States would continue their antidegradation programs. See [33 U.S.C. § 1313\(a\)](#). EPA has consistently required that revised state standards incorporate an antidegradation policy. And, in 1987, Congress explicitly recognized the existence of an “antidegradation policy established under [§ 303].” [§ 1313\(d\)\(4\)\(B\)](#).

EPA has promulgated regulations implementing § 303's antidegradation policy, a phrase that is not defined elsewhere in the Act. These regulations require States to “develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy.” [40 CFR § 131.12 \(1993\)](#). These “implementation methods shall, at a minimum, be consistent with the ... [e]xisting instream water uses and the level of water quality necessary to protect the

existing uses shall be maintained and protected.” *Ibid.* EPA has explained that under its antidegradation regulation, “no activity is allowable ... which could partially or completely eliminate any existing use.” EPA, Questions and ***719 Answers on Antidegradation 3 (Aug. 1985). Thus, States must implement their antidegradation policy in a manner “consistent” with existing uses of the stream. The State of Washington’s antidegradation policy in turn provides that “[e]xisting beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses will be allowed.” WAC 173–201–035(8)(a) (1986). The State concluded that the reduced stream flows would have just the effect prohibited by this policy. The Solicitor General, representing EPA, asserts, Brief for United States as *Amicus Curiae* 18–21, and we agree, that the State’s minimum stream flow condition is a proper application of the state and federal antidegradation regulations, as it ensures that an “existing instream water use [e]” will be “maintained and protected.” [40 CFR § 131.12\(a\)\(1\) \(1993\)](#).

Petitioners also assert more generally that the Clean Water Act is only concerned with water “quality,” and does not allow the regulation of water “quantity.” This is an artificial distinction. In many cases, water quantity is closely related to water quality; a sufficient lowering of the **1913 water quantity in a body of water could destroy all of its designated uses, be it for drinking water, recreation, navigation or, as here, as a fishery. In any event, there is recognition in the Clean Water Act itself that reduced stream flow, *i.e.*, diminishment of water quantity, can constitute water pollution. First, the Act’s definition of pollution as “the man-made or man induced alteration of the chemical, physical, biological, and radiological integrity of water” encompasses the effects of reduced water quantity. [33 U.S.C. § 1362\(19\)](#). This broad conception of pollution—one which expressly evinces Congress’ concern with the physical and biological integrity of water—refutes petitioners’ assertion that the Act draws a sharp distinction between the regulation of water “quantity” and water “quality.” Moreover, § 304 of the Act expressly recognizes that water “pollution” may result from “changes ***720 in the movement, flow, or circulation of any navigable waters ..., including changes caused by the construction of dams.” [33 U.S.C. § 1314\(f\)](#). This concern with the flowage effects of dams and other diversions is also embodied in the EPA regulations, which expressly require existing dams to be operated to attain designated uses. [40 CFR § 131.10\(g\)\(4\) \(1992\)](#).

Petitioners assert that two other provisions of the Clean Water Act, §§ 101(g) and 510(2), [33 U.S.C. §§ 1251\(g\) and 1370\(2\)](#), exclude the regulation of water quantity from the coverage of the Act. Section 101(g) provides “that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this chapter.” [33 U.S.C. § 1251\(g\)](#). Similarly, § 510(2) provides that nothing in the Act shall “be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters ... of such States.” [33 U.S.C. § 1370](#). In petitioners’ view, these provisions exclude “water quantity issues from direct regulation under the federally controlled water quality standards authorized in § 303.” Brief for Petitioners 39 (emphasis deleted).

This language gives the States authority to allocate water rights; we therefore find it peculiar that petitioners argue that it prevents the State from regulating stream flow. In any event, we read these provisions more narrowly than petitioners. Sections 101(g) and 510(2) preserve the authority of each State to allocate water quantity as between users; they do not limit the scope of water pollution controls that may be imposed on users who have obtained, pursuant to state law, a water allocation. In [California v. FERC](#), [495 U.S. 490, 498, 110 S.Ct. 2024, 2029, 109 L.Ed.2d 474 \(1990\)](#), construing an analogous provision of the Federal Power Act,⁴ we explained that “minimum stream ***721 flow requirements neither reflect nor establish ‘proprietary rights’ ” to water. Cf. [First Iowa Hydro–Electric Cooperative v. FPC](#), [328 U.S. 152, 176, and n. 20, 66 S.Ct. 906, 917, and n. 20, 90 L.Ed. 1143 \(1946\)](#). Moreover, the certification itself does not purport to determine petitioners’ proprietary right to the water of the Dosewallips. In fact, the certification expressly states that a “State Water Right Permit (Chapters 90.03.250 RCW and 508–12 WAC) must be obtained prior to commencing construction of the project.” App. to Pet. for Cert. 83a. The certification merely determines the nature of the use to which that proprietary right may be put under the Clean Water Act, if and when it is obtained from the State. Our view is reinforced by the legislative history of the 1977 amendment to the Clean Water Act adding § 101(g). See 3 Legislative History of the Clean Water Act of 1977 (Committee Print compiled for the Committee on Environment and Public Works by the Library of Congress), Ser. No. 95–14, p. 532 (1978) (“The requirements [of the Act] may incidentally affect individual water rights.... **1914 It is not the purpose of this amendment to prohibit those incidental effects. It is the purpose of this amendment to insure that State allocation systems are not subverted, and that effects on individual

rights, if any, are prompted by legitimate and necessary water quality considerations”).

⁴ The relevant text of the Federal Power Act provides that “nothing herein contained shall be construed as affecting or intending to affect or in any way to interfere with the laws of the respective States relating to the control, appropriation, use, or distribution of water used in irrigation or for municipal or other uses, or any vested right acquired therein.” 41 Stat. 1077, [16 U.S.C. § 821](#).

IV

Petitioners contend that we should limit the State's authority to impose minimum flow requirements because FERC has comprehensive authority to license hydroelectric projects pursuant to the FPA, [16 U.S.C. § 791a et seq.](#) In petitioners' view, the minimum flow requirement imposed here interferes with FERC's authority under the FPA.

***722 The FPA empowers FERC to issue licenses for projects “necessary or convenient ... for the development, transmission, and utilization of power across, along, from, or in any of the streams ... over which Congress has jurisdiction.” § 797(e). The FPA also requires FERC to consider a project's effect on fish and wildlife. §§ 797(e), 803(a)(1). In *California v. FERC*, *supra*, we held that the California Water Resources Control Board, acting pursuant to state law, could not impose a minimum stream flow which conflicted with minimum stream flows contained in a FERC license. We concluded that the FPA did not “save” to the States this authority. *Id.*, at 498.

No such conflict with any FERC licensing activity is presented here. FERC has not yet acted on petitioners' license application, and it is possible that FERC will eventually deny petitioners' application altogether. Alternatively, it is quite possible, given that FERC is required to give equal consideration to the protection of fish habitat when deciding whether to issue a license, that any FERC license would contain the same conditions as the state § 401 certification. Indeed, at oral argument the Deputy Solicitor General stated that both EPA and FERC were represented in this proceeding, and that the Government has no objection to the stream flow condition contained in the § 401 certification. Tr. of Oral Arg. 43–44.

Finally, the requirement for a state certification applies not only to applications for licenses from FERC, but to all federal licenses and permits for activities which may result in a

discharge into the Nation's navigable waters. For example, a permit from the Army Corps of Engineers is required for the installation of any structure in the navigable waters which may interfere with navigation, including piers, docks, and ramps. Rivers and Harbors Appropriation Act of 1899, 30 Stat. 1151, § 10, [33 U.S.C. § 403](#). Similarly, a permit must be obtained from the Army Corps of Engineers ***723 for the discharge of dredged or fill material, and from the Secretary of the Interior or Agriculture for the construction of reservoirs, canals, and other water storage systems on federal land. See [33 U.S.C. §§ 1344\(a\), \(e\)](#); [43 U.S.C. § 1761](#) (1988 ed. and Supp. IV). We assume that a § 401 certification would also be required for some licenses obtained pursuant to these statutes. Because § 401's certification requirement applies to other statutes and regulatory schemes, and because any conflict with FERC's authority under the FPA is hypothetical, we are unwilling to read implied limitations into § 401. If FERC issues a license containing a stream flow condition with which petitioners disagree, they may pursue judicial remedies at that time. Cf. *Escondido Mut. Water Co. v. La Jolla Band of Mission Indians*, 466 U.S. 765, 778, n. 20, 104 S.Ct. 2105, 2113, n. 20, 80 L.Ed.2d 753 (1984).

In summary, we hold that the State may include minimum stream flow requirements in a certification issued pursuant to § 401 of the Clean Water Act insofar as necessary to enforce a designated use contained in a state water quality standard. The judgment of the Supreme Court of Washington, accordingly, is affirmed.

So ordered.

Justice [STEVENS](#), concurring.

While I agree fully with the thorough analysis in the Court's opinion, I add this comment **1915 for emphasis. For judges who find it unnecessary to go behind the statutory text to discern the intent of Congress, this is (or should be) an easy case. Not a single sentence, phrase, or word in the Clean Water Act purports to place any constraint on a State's power to regulate the quality of its own waters more stringently than federal law might require. In fact, the Act explicitly recognizes States' ability to impose stricter standards. See, e.g., § 301(b)(1)(C), [33 U.S.C. § 1311\(b\)\(1\)\(C\)](#).

***724 Justice [THOMAS](#), with whom Justice [SCALIA](#) joins, dissenting.

The Court today holds that a State, pursuant to § 401 of the Clean Water Act, may condition the certification necessary to obtain a federal license for a proposed hydroelectric project upon the maintenance of a minimum flow rate in the river to be utilized by the project. In my view, the Court makes three fundamental errors. First, it adopts an interpretation that fails adequately to harmonize the subsections of § 401. Second, it places no meaningful limitation on a State's authority under § 401 to impose conditions on certification. Third, it gives little or no consideration to the fact that its interpretation of § 401 will significantly disrupt the carefully crafted federal-state balance embodied in the Federal Power Act. Accordingly, I dissent.

I

A

Section 401(a)(1) of the Federal Water Pollution Control Act, otherwise known as the Clean Water Act (CWA or Act), [33 U.S.C. § 1251 et seq.](#), provides that “[a]ny applicant for a Federal license or permit to conduct any activity ..., which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates ... that any such discharge will comply with ... applicable provisions of [the CWA].” [33 U.S.C. § 1341\(a\)\(1\)](#). The terms of § 401(a)(1) make clear that the purpose of the certification process is to ensure that discharges from a project will meet the requirements of the CWA. Indeed, a State's authority under § 401(a)(1) is limited to certifying that “any discharge” that “may result” from “any activity,” such as petitioners' proposed hydroelectric project, will “comply” with the enumerated provisions of the CWA; if the discharge will fail to comply, the State may “den[y]” the certification. *Ibid.* In addition, under § 401(d), a State may place conditions on a ***725 § 401 certification, including “effluent limitations and other limitations, and monitoring requirements,” that may be necessary to ensure compliance with various provisions of the CWA and with “any other appropriate requirement of State law.” [§ 1341\(d\)](#).

The minimum stream flow condition imposed by respondents in this case has no relation to any possible “discharge” that might “result” from petitioners' proposed project. The term “discharge” is not defined in the CWA, but its plain and ordinary meaning suggests “a flowing or issuing out,” or “something that is emitted.” Webster's Ninth New Collegiate

Dictionary 360 (1991). Cf. [33 U.S.C. § 1362\(16\)](#) (“The term ‘discharge’ when used without qualification includes a discharge of a pollutant, and a discharge of pollutants”). A minimum stream flow requirement, by contrast, is a limitation on the amount of water the project can take in or divert from the river. See *ante*, at 1908. That is, a minimum stream flow requirement is a limitation on intake—the opposite of discharge. Imposition of such a requirement would thus appear to be beyond a State's authority as it is defined by § 401(a)(1).

The Court remarks that this reading of § 401(a)(1) would have “considerable force,” *ante*, at 1908, were it not for what the Court understands to be the expansive terms of § 401(d). That subsection, as set forth in [33 U.S.C. § 1341\(d\)](#), provides:

“Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that *any applicant* for a Federal license or permit ***1916 will comply with any applicable effluent limitations and other limitations, under [section 1311](#) or [1312](#) of this title, standard of performance under [section 1316](#) of this title, or prohibition, effluent standard, or pretreatment standard under [section 1317](#) of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal ***726 license or permit subject to the provisions of this section.” (Emphasis added).

According to the Court, the fact that § 401(d) refers to an “applicant,” rather than a “discharge,” complying with various provisions of the Act “contradicts petitioners' claim that the State may only impose water quality limitations specifically tied to a ‘discharge.’” *Ante*, at 1909. In the Court's view, § 401(d)'s reference to an applicant's compliance “expands” a State's authority beyond the limits set out in § 401(a)(1), *ibid.*, thereby permitting the State in its certification process to scrutinize the applicant's proposed “activity as a whole,” not just the discharges that may result from the activity, *ante*, at 1909. The Court concludes that this broader authority allows a State to impose conditions on a § 401 certification that are unrelated to discharges. *Ante*, at 1908–1909.

While the Court's interpretation seems plausible at first glance, it ultimately must fail. If, as the Court asserts, § 401(d) permits States to impose conditions unrelated to discharges in § 401 certifications, Congress' careful focus on discharges in § 401(a)(1)—the provision that describes the scope and function of the certification process—was wasted effort. The

power to set conditions that are unrelated to discharges is, of course, nothing but a conditional power to deny certification for reasons unrelated to discharges. Permitting States to impose conditions unrelated to discharges, then, effectively eliminates the constraints of § 401(a)(1).

Subsections 401(a)(1) and (d) can easily be reconciled to avoid this problem. To ascertain the nature of the conditions permissible under § 401(d), § 401 must be read as a whole. See *United Sav. Assn. of Tex. v. Timbers of Inwood Forest Associates, Ltd.*, 484 U.S. 365, 371, 108 S.Ct. 626, 630, 98 L.Ed.2d 740 (1988) (statutory interpretation is a “holistic endeavor”). As noted above, § 401(a)(1) limits a State's authority in the certification process to addressing concerns related to discharges and to ensuring that any discharge resulting from a project will comply with specified provisions of the Act. It is reasonable ***727 to infer that the conditions a State is permitted to impose on certification must relate to the very purpose the certification process is designed to serve. Thus, while § 401(d) permits a State to place conditions on a certification to ensure compliance of the “applicant,” those conditions must still be related to discharges. In my view, this interpretation best harmonizes the subsections of § 401. Indeed, any broader interpretation of § 401(d) would permit that subsection to swallow § 401(a)(1).

The text of § 401(d) similarly suggests that the conditions it authorizes must be related to discharges. The Court attaches critical weight to the fact that § 401(d) speaks of the compliance of an “applicant,” but that reference, in and of itself, says little about the nature of the conditions that may be imposed under § 401(d). Rather, because § 401(d) conditions can be imposed only to ensure compliance with specified provisions of law—that is, with “applicable effluent limitations and other limitations, under [section 1311](#) or [1312](#) of this title, standard[s] of performance under [section 1316](#) of this title, ... prohibition[s], effluent standard[s], or pretreatment standard[s] under [section 1317](#) of this title, [or] ... any other appropriate requirement[s] of State law”—one should logically turn to those provisions for guidance in determining the nature, scope, and purpose of § 401(d) conditions. Each of the four identified CWA provisions describes discharge-related limitations. See [§ 1311](#) (making it unlawful to discharge any pollutant except in compliance with enumerated provisions of the Act); [§ 1312](#) (establishing effluent limitations on point source discharges); [§ 1316](#) (setting national standards of performance **1917 for the control of discharges); and [§ 1317](#) (setting pretreatment

effluent standards and prohibiting the discharge of certain effluents except in compliance with standards).

The final term on the list—“appropriate requirement[s] of State law”—appears to be more general in scope. Because ***728 this reference follows a list of more limited provisions that specifically address discharges, however, the principle *ejusdem generis* would suggest that the general reference to “appropriate” requirements of state law is most reasonably construed to extend only to provisions that, like the other provisions in the list, impose discharge-related restrictions. Cf. *Cleveland v. United States*, 329 U.S. 14, 18, 67 S.Ct. 13, 15–16, 91 L.Ed. 12 (1946) (“Under the *ejusdem generis* rule of construction the general words are confined to the class and may not be used to enlarge it”); *Arcadia v. Ohio Power Co.*, 498 U.S. 73, 84, 111 S.Ct. 415, 421–422, 112 L.Ed.2d 374 (1990). In sum, the text and structure of § 401 indicate that a State may impose under § 401(d) only those conditions that are related to discharges.

B

The Court adopts its expansive reading of § 401(d) based at least in part upon deference to the “conclusion” of the Environmental Protection Agency (EPA) that § 401(d) is not limited to requirements relating to discharges. *Ante*, at 1909. The agency regulation to which the Court defers is [40 CFR § 121.2\(a\)\(3\)](#) (1993), which provides that the certification shall contain “[a] statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards.” *Ante*, at 1909. According to the Court, “EPA’s conclusion that *activities* — not merely discharges—must comply with state water quality standards ... is entitled to deference” under *Chevron, U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 104 S.Ct. 2778, 81 L.Ed.2d 694 (1984). *Ante*, at 1909.

As a preliminary matter, the Court appears to resort to deference under *Chevron* without establishing through an initial examination of the statute that the text of the section is ambiguous. See *Chevron, supra*, at 842–843, 104 S.Ct., at 2781–2182. More importantly, the Court invokes *Chevron* deference to support its interpretation even though the Government does not seek ***729 deference for the EPA’s regulation in this case.¹ That the Government itself has not contended that an agency interpretation exists reconciling the scope of the conditioning authority under § 401(d) with the terms of § 401(a)(1) should suggest to the Court that there is

no “agenc[y] construction” directly addressing the question. [Chevron, supra, at 842, 104 S.Ct., at 2781.](#)

¹ The Government, appearing as *amicus curiae* “supporting affirmance,” instead approaches the question presented by assuming, *arguendo*, that petitioners' construction of § 401 is correct: “Even if a condition imposed under Section 401(d) were valid only if it assured that a ‘discharge’ will comply with the State's water quality standards, the [minimum flow condition set by respondents] satisfies that test.” Brief for United States as *Amicus Curiae* 11.

In fact, the regulation to which the Court defers is hardly a definitive construction of the scope of § 401(d). On the contrary, the EPA's position on the question whether conditions under § 401(d) must be related to discharges is far from clear. Indeed, the only EPA regulation that specifically addresses the “conditions” that may appear in § 401 certifications speaks exclusively in terms of limiting discharges. According to the EPA, a § 401 certification shall contain “[a] statement of *any conditions* which the certifying agency deems necessary or desirable *with respect to the discharge of the activity.*” [40 CFR § 121.2\(a\)\(4\) \(1993\)](#) (emphases added). In my view, [§ 121.2\(a\)\(4\)](#) should, at the very least, give the Court pause before it resorts to *Chevron* deference in this case.

II

The Washington Supreme Court held that the State's water quality standards, promulgated ****1918** pursuant to § 303 of the Act, [33 U.S.C. § 1313](#), were “appropriate” requirements of state law under § 401(d), and sustained the stream flow condition imposed by respondents as necessary to ensure compliance with a “use” of the river as specified in those standards. As an alternative to their argument that § 401(d) conditions must be discharge related, petitioners assert that *****730** the state court erred when it sustained the stream flow condition under the “use” component of the State's water quality standards without reference to the corresponding “water quality criteria” contained in those standards. As explained above, petitioners' argument with regard to the scope of a State's authority to impose conditions under § 401(d) is correct. I also find petitioners' alternative argument persuasive. Not only does the Court err in rejecting that § 303 argument, in the process of doing so it essentially removes all limitations on a State's conditioning authority under § 401.

The Court states that, “at a minimum, limitations imposed pursuant to state water quality standards adopted pursuant to § 303 are ‘appropriate’ requirements of state law” under § 401(d). *Ante*, at 1910.² A water quality standard promulgated pursuant to § 303 must “consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.” [33 U.S.C. § 1313\(c\)\(2\)\(A\)](#). The Court asserts that this language “is most naturally read to require that a project be consistent with *both* components, namely, the designated use *and* the water quality criteria.” *Ante*, at 1910. In the Court's view, then, the “use” of a body of water is independently enforceable through § 401(d) without reference to the corresponding criteria. *Ibid*.

² In the Court's view, § 303 water quality standards come into play under § 401(d) either as “appropriate” requirements of state law or through § 301 of the Act, which, according to the Court, “incorporates § 303 by reference.” *Ante*, at 1909 (citations omitted). The Court notes that through § 303, “the statute allows States to impose limitations to ensure compliance with § 301 of the Act.” *Ibid*. Yet § 301 makes unlawful only “the [unauthorized] *discharge* of any pollutant by any person.” [33 U.S.C. § 1311\(a\)](#) (emphasis added); cf. *supra*, at 1916. Thus, the Court's reliance on § 301 as a source of authority to impose conditions unrelated to discharges is misplaced.

The Court's reading strikes me as contrary to common sense. It is difficult to see how compliance with a “use” of a body of water could be enforced without reference to the *****731** corresponding criteria. In this case, for example, the applicable “use” is contained in the following regulation: “Characteristic uses shall include, but not be limited to, ... [s]almonid migration, rearing, spawning, and harvesting.” Wash.Admin.Code (WAC) 173–201–045(1)(b)(iii) (1986). The corresponding criteria, by contrast, include measurable factors such as quantities of fecal coliform organisms and dissolved gases in the water. 173–201–045(1)(c)(i) and (ii).³ Although the Act does not further address (at least not expressly) the link between “uses” and “criteria,” the regulations promulgated under § 303 make clear that a “use” is an aspirational goal to be attained through compliance with corresponding “criteria.” Those regulations suggest that “uses” are to be “achieved and protected,” and that “water quality criteria” are to be adopted to “protect the designated use[s].” [40 CFR §§ 131.10\(a\), 131.11\(a\)\(1\) \(1993\)](#).

³ Respondents concede that petitioners' project "will likely not violate any of Washington's water quality criteria." Brief for Respondents 24.

The problematic consequences of decoupling "uses" and "criteria" become clear once the Court's interpretation of § 303 is read in the context of § 401. In the Court's view, a State may condition the § 401 certification "upon *any limitations* necessary to ensure compliance" with the "uses of the water body." *Ante*, at 1909–1910 (emphasis added). Under the Court's interpretation, then, state environmental agencies may pursue, through § 401, their water goals in any way they choose; the conditions imposed on certifications need not relate to discharges, nor to water quality criteria, nor to any objective or quantifiable standard, so long as they tend to ****1919** make the water more suitable for the uses the State has chosen. In short, once a State is allowed to impose conditions on § 401 certifications to protect "uses" in the abstract, § 401(d) is limitless.

To illustrate, while respondents in this case focused only on the "use" of the Dosewallips River as a fish habitat, this particular river has a number of other "[c]haracteristic uses," ****732** including "[r]ecreation (primary contact recreation, sport fishing, boating, and aesthetic enjoyment)." WAC 173–201–045(1)(b)(v) (1986). Under the Court's interpretation, respondents could have imposed any number of conditions related to recreation, including conditions that have little relation to water quality. In *Town of Summersville*, 60 FERC ¶ 61,291, p. 61,990 (1992), for instance, the state agency required the applicant to "construct ... access roads and paths, low water stepping stone bridges, ... a boat launching facility ..., and a residence and storage building." These conditions presumably would be sustained under the approach the Court adopts today.⁴ In the end, it is difficult to conceive of a condition that would fall outside a State's § 401(d) authority under the Court's approach.

⁴ Indeed, as the § 401 certification stated in this case, the flow levels imposed by respondents are "in excess of those required to maintain water quality in the bypass region," App. to Pet. for Cert. 83a, and therefore conditions not related to water quality must, in the Court's view, be permitted.

III

The Court's interpretation of § 401 significantly disrupts the careful balance between state and federal interests that

Congress struck in the Federal Power Act (FPA), 16 U.S.C. § 791a et seq. Section 4(e) of the FPA authorizes the Federal Energy Regulatory Commission (FERC) to issue licenses for projects "necessary or convenient ... for the development, transmission, and utilization of power across, along, from, or in any of the streams ... over which Congress has jurisdiction." 16 U.S.C. § 797(e). In the licensing process, FERC must balance a number of considerations: "[I]n addition to the power and development purposes for which licenses are issued, [FERC] shall give equal consideration to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, ****733** and the preservation of other aspects of environmental quality." *Ibid*. Section 10(a) empowers FERC to impose on a license such conditions, including minimum stream flow requirements, as it deems best suited for power development and other public uses of the waters. See 16 U.S.C. § 803(a); California v. FERC, 495 U.S. 490, 494–495, 506, 110 S.Ct. 2024, 2027, 109 L.Ed.2d 474 (1990).

In *California v. FERC*, the Court emphasized FERC's exclusive authority to set the stream flow levels to be maintained by federally licensed hydroelectric projects. California, in order "to protect [a] stream's fish," had imposed flow rates on a federally licensed project that were significantly higher than the flow rates established by FERC. *Id.*, at 493, 110 S.Ct., at 2027. In concluding that California lacked authority to impose such flow rates, we stated:

"As Congress directed in FPA § 10(a), FERC set the conditions of the [project] license, including the minimum stream flow, after considering which requirements would best protect wildlife and ensure that the project would be economically feasible, and thus further power development. Allowing California to impose significantly higher minimum stream flow requirements would disturb and conflict with the balance embodied in that considered federal agency determination. FERC has indicated that the California requirements interfere with its comprehensive planning authority, and we agree that allowing California to impose the challenged requirements would be contrary to congressional intent regarding the Commission's licensing authority and would constitute a veto of the project that was approved and licensed by ****1920** FERC." *Id.*, at 506–507, 110 S.Ct., at 2033–2034 (citations and internal quotation marks omitted).

California v. FERC reaffirmed our decision in *First Iowa Hydro-Electric Cooperative v. FPC*, 328 U.S. 152, 164,

66 S.Ct. 906, 911–912, 90 L.Ed. 1143 (1946), in which we warned against “vest[ing] in [state authorities] ***734 a veto power” over federal hydroelectric projects. Such authority, we concluded, could “destroy the effectiveness” of the FPA and “subordinate to the control of the State the ‘comprehensive’ planning” with which the administering federal agency (at that time the Federal Power Commission) was charged. *Ibid.*

Today, the Court gives the States precisely the veto power over hydroelectric projects that we determined in *California v. FERC* and *First Iowa* they did not possess. As the language of § 401(d) expressly states, any condition placed in a § 401 certification, including, in the Court’s view, a stream flow requirement, “shall become a condition on any Federal license or permit.” 33 U.S.C. § 1341(d) (emphasis added). Any condition imposed by a State under § 401(d) thus becomes a “ter[m] ... of the license as a matter of law,” *Department of Interior v. FERC*, 952 F.2d 538, 548 (CA9 1992) (citation and internal quotation marks omitted), regardless of whether FERC favors the limitation. Because of § 401(d)’s mandatory language, federal courts have uniformly held that FERC has no power to alter or review § 401 conditions, and that the proper forum for review of those conditions is state court.⁵ Section 401(d) conditions imposed by States are ***735 therefore binding on FERC. Under the Court’s interpretation, then, it appears that the mistake of the State in *California v. FERC* was not that it had trespassed into territory exclusively reserved to FERC; rather, it simply had not hit upon the proper device—that is, the § 401 certification—through which to achieve its objectives.

⁵ See, e.g., *Keating v. FERC*, 927 F.2d 616, 622 (CA9 1991) (federal review inappropriate because a decision to grant or deny § 401 certification “presumably turns on questions of substantive state environmental law—an area that Congress expressly intended to reserve to the states and concerning which federal agencies have little competence”); *Department of Interior v. FERC*, 952 F.2d, at 548; *United States v. Marathon Development Corp.*, 867 F.2d 96, 102 (CA1 1989); *Proffitt v. Rohm & Haas*, 850 F.2d 1007, 1009 (CA3 1988). FERC has taken a similar position. See *Town of Summersville*, 60 FERC ¶ 61,291, p. 61,990 (1992) (“[S]ince pursuant to Section 401(d) ... all of the conditions in the water quality certification must become conditions in the license, review of the appropriateness of the conditions is within the purview of state courts and not the Commission. The only alternatives available to the Commission are either to issue a license with the conditions included or to deny”

the application altogether); accord, *Central Maine Power Co.*, 52 FERC ¶ 61,033, pp. 61,172–61,173 (1990).

Although the Court notes in passing that “[t]he limitations included in the certification become a condition on any federal license,” *ante*, at 1907, it does not acknowledge or discuss the shift of power from FERC to the States that is accomplished by its decision. Indeed, the Court merely notes that “any conflict with FERC’s authority under the FPA” in this case is “hypothetical” at this stage, *ante*, at 1914, because “FERC has not yet acted on petitioners’ license application,” *ante*, at 1914. We are assured that “it is quite possible ... that any FERC license would contain the same conditions as the state § 401 certification.” *Ibid.*

The Court’s observations simply miss the point. Even if FERC might have no objection to the stream flow condition established by respondents *in this case*, such a happy coincidence will likely prove to be the exception, rather than the rule. In issuing licenses, FERC must balance the Nation’s power needs together with the need for energy conservation, irrigation, flood control, fish and wildlife protection, and recreation. 16 U.S.C. § 797(e). State environmental agencies, by contrast, need only consider parochial environmental interests. Cf., e.g., *Wash.Rev.Code § 90.54.010(2)* (1992) (goal of State’s water policy is to “insure that waters of the state are protected and fully utilized for the greatest benefit to the people of the state of Washington”). As a result, it is likely that conflicts will arise between a **1921 FERC-established stream flow level and a state-imposed level.

Moreover, the Court ignores the fact that its decision nullifies the congressionally mandated process for resolving such state-federal disputes when they develop. Section 10(j)(1) of the FPA, 16 U.S.C. § 803(j)(1), which was added as part ***736 of the Electric Consumers Protection Act of 1986 (ECPA), 100 Stat. 1244, provides that every FERC license must include conditions to “protect, mitigate damag[e] to, and enhance” fish and wildlife, including “related spawning grounds and habitat,” and that such conditions “shall be based on recommendations” received from various agencies, including state fish and wildlife agencies. If FERC believes that a recommendation from a state agency is inconsistent with the FPA—that is, inconsistent with what FERC views as the proper balance between the Nation’s power needs and environmental concerns—it must “attempt to resolve any such inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities” of the state agency. § 803(j)(2). If, after such an attempt, FERC “does not adopt in whole or in part a recommendation

of any [state] agency,” it must publish its reasons for rejecting that recommendation. *Ibid.* After today's decision, these procedures are a dead letter with regard to stream flow levels, because a State's “recommendation” concerning stream flow “shall” be included in the license when it is imposed as a condition under § 401(d).

More fundamentally, the 1986 amendments to the FPA simply make no sense in the stream flow context if, in fact, the States already possessed the authority to establish minimum stream flow levels under § 401(d) of the CWA, which was enacted years before those amendments. Through the ECPA, Congress strengthened the role of the States in establishing FERC conditions, but it did not make that authority paramount. Indeed, although Congress could have vested in the States the final authority to set stream flow conditions, it instead left that authority with FERC. See [California v. FERC](#), 495 U.S., at 499, 110 S.Ct., at 2029–2030. As the Ninth Circuit observed in the course of rejecting California's effort to give *California v. FERC* a narrow reading, “[t]here would be no point in Congress requiring [FERC] to consider the state agency recommendations on environmental matters and ***737 make its own decisions about which to accept, if the state agencies had the power

to impose the requirements themselves.” [Sayles Hydro Associates v. Maughan](#), 985 F.2d 451, 456 (1993).

Given the connection between § 401 and federal hydroelectric licensing, it is remarkable that the Court does not at least attempt to fit its interpretation of § 401 into the larger statutory framework governing the licensing process. At the very least, the significant impact the Court's ruling is likely to have on that process should compel the Court to undertake a closer examination of § 401 to ensure that the result it reaches was mandated by Congress.

IV

Because the Court today fundamentally alters the federal-state balance Congress carefully crafted in the FPA, and because such a result is neither mandated nor supported by the text of § 401, I respectfully dissent.

All Citations

511 U.S. 700, 114 S.Ct. 1900, 128 L.Ed.2d 716, 38 ERC 1593, 62 USLW 4408, 152 P.U.R.4th 190, Util. L. Rep. P 13,988, 24 Env'tl. L. Rep. 20,945

927 F.2d 616
United States Court of Appeals,
District of Columbia Circuit.

Joseph M. KEATING, Petitioner,
v.
FEDERAL ENERGY REGULATORY
COMMISSION, Respondent,
State of California, ex rel.
California State Water Resources
Control Board, Intervenor.

No. 90-1080.

|
Argued Jan. 31, 1991.

|
Decided March 8, 1991.

|
On Denial of Intervenor's Petition
for Rehearing May 10, 1991.

Synopsis

Applicant filed petition for review of Federal Energy Regulatory Commission's dismissal of application for license to construct and operate hydroelectric power plant. The Court of Appeals, [Harry T. Edwards](#), Circuit Judge, held that Commission, rather than California administrative agency or California state courts, had to make determination as to whether California's asserted revocation of blanket state water quality certification satisfied predicate requirements of Clean Water Act.

Remanded.

*617 **345 On Petition for Review of Orders of the Federal Energy Regulatory Commission.

Attorneys and Law Firms

[Robin L. Rivett](#), with whom [Ronald A. Zumbun](#), Sacramento, Cal., was on the brief, for petitioner.

Joel M. Cockrell, Atty., F.E.R.C., with whom [William S. Scherman](#), General Counsel, and Jerome M. Feit, Sol., F.E.R.C., Washington, D.C., were on the brief, for respondent.

**346 [Roderick E. Walston](#), Supervising Deputy Atty. Gen., San Francisco, Cal., was on the brief, for intervenor. [Clifford T. Lee](#), San Francisco, Cal., also entered an appearance, for intervenor.

Before MIKVA, Chief Judge, [EDWARDS](#) and THOMAS, Circuit Judges.

Opinion

Opinion for the Court filed by Circuit Judge [HARRY T. EDWARDS](#).

*618 [HARRY T. EDWARDS](#), Circuit Judge:

The petitioner in this case, Joseph M. Keating, challenges a decision by the Federal Energy Regulatory Commission ("FERC") dismissing his application for a license to construct and operate a hydroelectric power plant. In rejecting the petitioner's license application, FERC ruled that Keating did not have the necessary state certification covering water quality standards for the project as required by the Clean Water Act. See [33 U.S.C. § 1341\(a\)\(1\) \(1988\)](#).¹

¹ (1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title. In the case of any such activity for which there is not an applicable effluent limitation or other limitation under sections 1311(b) and 1312 of this title, and there is not an applicable standard under sections 1316 and 1317 of this title, the State shall so certify, except that any such certification shall not be deemed to satisfy section 1371(c) of this title. Such State or interstate agency shall establish procedures for public notice in the case of all applications for certification by it and, to the extent it deems appropriate, procedures for public hearings in connection with specific applications. In any case where a State or interstate agency has no authority to give such a certification, such certification shall be from the Administrator. If the State, interstate agency,

or Administrator, as the case may be, fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. No license or permit shall be granted if certification has been denied by the State, interstate agency, or the Administrator, as the case may be.

[33 U.S.C. § 1341\(a\)\(1\) \(1988\)](#).

Keating contends that he obtained the requisite certification from the State of California in the course of procuring an earlier permit with respect to the same project from the Army Corps of Engineers (“the Corps”); the state, however, claims to have revoked that earlier certification. Keating now argues that, under the express terms of [33 U.S.C. § 1341\(a\)\(3\) \(1988\)](#),² California's purported revocation is invalid as a matter of federal law and that FERC is bound by the Clean Water Act to recognize the continuing validity of the state's earlier certification. In reply, FERC insists that it is powerless to apply the standards of [section 1341\(a\)\(3\)](#) and that Keating's only recourse for contesting the validity of California's asserted revocation is in the California state courts.

² (3) The certification obtained pursuant to paragraph (1) of this subsection with respect to the construction of any facility shall fulfill the requirements of this subsection with respect to certification in connection with any other Federal license or permit required for the operation of such facility unless, after notice to the certifying State, agency, or Administrator, as the case may be, which shall be given by the Federal agency to whom application is made for such operating license or permit, the State, or if appropriate, the interstate agency or the Administrator, notifies such agency within sixty days after receipt of such notice that there is no longer reasonable assurance that there will be compliance with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title because of changes since the construction license or permit certification was issued in (A) the construction or operation of the facility, (B) the characteristics of the waters into which such discharge is made, (C) the water quality criteria applicable to such waters or (D) applicable effluent limitations or other requirements. This paragraph shall be inapplicable in any case where the applicant for such operating

license or permit has failed to provide the certifying State, or, if appropriate, the interstate agency or the Administrator, with notice of any proposed changes in the construction or operation of the facility with respect to which a construction license or permit has been granted, which changes may result in violation of section 1311, 1312, 1313, 1316, or 1317 of this title.

[33 U.S.C. § 1341\(a\)\(3\) \(1988\)](#).

****347** We can find no merit in FERC's position; we therefore grant the petition for review. We agree that [section 1341\(a\)\(3\)](#) of the Clean Water Act expressly controls the validity of California's attempted withdrawal of its prior certification. Because this provision requires an application of federal law, in connection with a matter that is within the clear compass of FERC's jurisdiction, we hold that FERC is obligated to apply the controlling federal law in considering ***619** Keating's present request for a license. Accordingly, we remand the case to the agency with instructions to reinstate Keating's application and to consider whether California's attempted revocation is valid.

I. Background

Joseph Keating desires to build a small hydroelectric power plant, called the Tungstar project, on the Morgan and Upper Pine Creeks in Inyo County, California. Under section 4(e) of the Federal Power Act, Keating is required to obtain a license from FERC authorizing construction and operation of the proposed facility. *See* [16 U.S.C. § 797\(e\) \(1988\)](#). Because construction of the plant would require the placement of dredged or fill material into the creeks, Keating was also required, by section 404 of the Clean Water Act, [33 U.S.C. § 1344 \(1988\)](#), to obtain a dredge-and-fill permit from the Army Corps of Engineers.

The licensing authority of both FERC and the Corps, however, is contingent upon compliance with a provision of the Clean Water Act, section 401(a)(1), which requires prior state environmental approval of proposed water projects. *See* [33 U.S.C. § 1341\(a\)\(1\) \(1988\)](#), *reprinted at note 1 supra*.

Both a section 4(e) (FERC) license and a section 404 (Corps) permit fall within the terms of “a Federal license or permit” subject to the state certification requirement under section 401. *See* [33 C.F.R. §§ 325.1\(d\)\(4\), 330.9\(a\), 336.1\(a\)\(1\), \(b\)\(8\) \(1990\)](#) (Corps section 404 permit must be supported by section 401 state certification); [18 C.F.R. § 4.38\(a\) & \(c\)\(2\) \(1990\)](#) (applicant for FERC license under

section 4(e) must produce proof of section 401 certification or waiver); *City of Fredericksburg, Va. v. FERC*, 876 F.2d 1109, 1111 (4th Cir.1989) (section 4(e) license applicant must obtain state certification under section 401). Without such state certification, neither the FERC license nor the Corps permit may be issued. See 33 U.S.C. § 1341(a)(1) (1988) (“No [federal] license or permit shall be granted until the certification required by this section has been obtained or has been waived....”).

On June 23, 1986, Keating filed a request for state certification of his proposed Tungstar project with the Lahontan Regional Water Quality Control Board (“the Regional Board”), a division of the California State Water Resources Control Board. Three months later, on September 30, 1986, he submitted an application to FERC for a section 4(e) license.

While his applications before FERC and the California Regional Board were pending, Keating also sought a dredge-and-fill permit from the Army Corps of Engineers under section 404. The Corps authorizes dredge-and-fill operations in one of two ways: either with a permit that extends only to a given project, based upon a site-specific review of the particular activities proposed there; or, for certain classes of activities that “will cause only minimal adverse environmental effects,” with a general permit, customarily known as a “nationwide permit.” See 33 U.S.C. § 1344(e)(1) (1988); 33 C.F.R. Part 330 (1990). See generally *United States v. Marathon Dev. Corp.*, 867 F.2d 96 (1st Cir.1989). A nationwide permit authorizes any party to engage in the sort of activity described in the permit without the need to seek prior project-specific authorization. See *id.* at 98–99; *Riverside Irr. Dist. v. Andrews*, 758 F.2d 508, 511 (10th Cir.1985); *Orleans Audubon Soc’y v. Lee*, 742 F.2d 901, 909–10 (5th Cir.1984); see also 33 C.F.R. § 320.1(c) (1990) (“If an activity is covered by a general permit, an application for a ... [Corps] permit does not have to be made. In such cases, a person must only comply with the conditions contained in the general permit to satisfy requirements of law for a ... [Corps] permit.”).

Regardless of which route is followed, however, the Corps cannot issue a permit under section 404 without first obtaining state certification pursuant to section 401 from the state in which the activity is to take place. See 33 C.F.R. §§ 330.9(a), 336.1(b)(8) (1990); *Marathon Development*, 867 F.2d at 100 (“[T]he state certification requirement of section 401 applies to section 404(e) nationwide permits in the same way that it applies to any other section 404 permit.”);

Friends of the Earth v. United States Navy, 841 F.2d 927, 929–30 (9th Cir.1988). At about the same time that Keating was seeking a site-specific state **348 certification for his Tungstar project, the Corps sought state certification in connection with 26 nationwide permits covering a range of modest construction, navigational and similar activities. See 33 C.F.R. § 330.5 (1990) (listing nationwide permits). On October 31, 1986, the California State Water Resources Control Board (“the State Board”)—the parent agency of the Regional Board then considering Keating’s project—granted a blanket state certification *620 authorizing the activities set out in all 26 Corps nationwide permits. See State Water Resources Control Board, 1986 Amended Decision (Oct. 31, 1986), reprinted in Appendix (“App.”) Tab 3. The State Board’s certification included a number of conditions concerning particular regions in the state, none of which were relevant to Keating’s project, and claimed to reserve “discretionary authority to revoke certification, or set additional conditions of certification, for such permits on a case-by-case basis.” *Id.* Based on this certification, the Corps issued final permits on January 12, 1987.

Keating’s Tungstar project is covered by the last of the general permits issued by the Corps. On October 11, 1987, Keating wrote to the Los Angeles District of the Corps, seeking confirmation that his proposed Tungstar project fell within the scope of the nationwide permit. On November 18, 1987, the Corps replied, agreeing that Keating’s project was authorized by the Corps’ Nationwide Permit No. 26. See Letter from Clifford Rader, U.S. Army Corps of Engineers, to Joseph Keating (Nov. 18, 1987) (citing 33 C.F.R. § 330.5(a)(26) (Nationwide Permit No. 26)), reprinted in App. Tab 7. “As long as you comply with the nationwide permit conditions,” the Corps letter stated, “an individual permit is not required.” *Id.* (citation omitted).

Although it is undisputed that Keating had a Corps section 404 permit for his project, and that this permit was granted with the requisite state certification, he nonetheless ran into difficulties in connection with his application for a section 4(e) license from FERC. Under section 401(a)(3) of the Clean Water Act, absent other valid objections, FERC was obliged to accept the certification underlying the Corps permit as satisfying the state certification requirement with respect to Keating’s section 4(e) license application. See 33 U.S.C. § 1341(a)(3) (1988). However, on April 30, 1987, the California Regional Board, which had continued to review Keating’s application for certification specific to the Tungstar site, denied Keating’s request without prejudice because

Keating allegedly had failed to submit all environmental documentation required by state law. *See* Letter from James L. Easton, Exec. Dir., State Water Resources Control Board, to Joseph M. Keating (Apr. 30, 1987), *reprinted in* App. Tab 4. Upon learning of this situation, officials at FERC apparently believed that they were faced with conflicting signals from the State of California concerning whether Keating had the requisite state certification to support his section 4(e) license application. On the one hand, the State Board had certified that projects satisfying the criteria spelled out in the Corps' Nationwide Permit No. 26 would conform with state water quality standards, and the Corps had subsequently confirmed that Keating's project fell within the scope of that permit. On the other hand, the Regional Board had later denied Keating's site-specific request for certification on grounds of inadequate environmental data.

In light of these arguably inconsistent pronouncements, FERC sought clarification from the State of California regarding certification of the Tungstar project. Specifically, FERC asked the State Board whether the Regional Board's project-specific denial of certification for the Tungstar project in April 1987 purported to revoke the State Board's October 1986 blanket certification of projects, like Keating's, satisfying the Corps' nationwide permit criteria. *See Joseph Martin Keating*, [45 F.E.R.C. \(CCH\) ¶ 61,112, at 61,351 \(Oct. 27, 1988\)](#) (order on motion for expedited action on license application), *reprinted in* App. 10. The State Board responded on December 9, 1988, confirming that the Regional Board's action vitiated the state's earlier certification given in connection with the Corps nationwide permits. The State Board explained that it had never intended by its blanket Corps certification to certify any individual projects for purposes of a later federal power license and that if “certification of Nationwide Permits applies to applications for hydropower licenses under the Federal Power Act, that certification was revoked as applied to the Tungstar project.” *See* California State Water Resources ****349** Control Board Response to Request for Advice Regarding the Status of State Water Quality Certification Under Section 401 of the Clean Water Act for the Tungstar Project 3 (Dec. 9, 1988), *reprinted in* App. Tab 11.

On the basis of the state's reply, FERC held itself powerless to act on Keating's application. “In light of the Board's December 12, 1988[,] filing,” FERC wrote, “it has not been shown that the Tungstar Project has water quality certification.” *See Joseph Martin Keating*, [47 F.E.R.C. \(CCH\) ¶ 61,170, at 61,554 \(May 2, 1989\)](#) (order denying motion

for expedited action on license application), *reprinted in* App. Tab 1. Accordingly, the agency suspended ***621** consideration of Keating's license application until Keating could produce an unclouded state certification. *Id.*

In his petition for rehearing, Keating objected vigorously to FERC's acceptance of California's decision to revoke the certification Keating claimed to hold under the state's 1986 blanket approval of the Corps' nationwide permits. Keating argued that section 401(a)(3) of the Clean Water Act, [33 U.S.C. § 1341\(a\)\(3\) \(1988\)](#), limits the power of a state to revoke a prior certification once a federal license or permit—such as a Corps section 404 permit—has been issued on the basis of that certification. California's attempted revocation, Keating continued, was invalid by the terms of that federal law and FERC was therefore obligated to treat California's original certification of his project as valid for purposes of his subsequent section 4(e) license application.

In reply, FERC refused Keating's demand that it review the validity of California's purported revocation. The agency contended that “[a] review of the case law on section 401 of [the Clean Water Act] ... indicates that the issue of whether a state certifying agency has legally revoked validly issued project-specific or blanket water quality certification is reviewable in the state courts, not by this Commission.” *See Joseph Martin Keating*, [49 F.E.R.C. \(CCH\) ¶ 61,343, at 62,229 \(Dec. 18, 1989\)](#) (order denying rehearing) (“*Rehearing Order*”), *reprinted in* App. Tab 2. The Commission acknowledged Keating's argument that federal law governed the validity of California's action, but held nonetheless that Keating's *only* recourse was a challenge in the state courts. As the Commission later explained in response to Keating's arguments concerning the controlling effect of section 401(a)(3) of the Clean Water Act, “whatever may be the validity of these contentions, the Commission's position here is that they must be raised and decided by the state agency and thereafter, if necessary, reviewed in state court.” *See* Brief for Respondent Federal Energy Regulatory Commission at 21, *Keating v. FERC*, No. 90–1080 (D.C.Cir. Mar. 8, 1991).

Because Keating refused to pursue any such state remedies, FERC dismissed his license application. *See Rehearing Order*, 49 F.E.R.C. at 62,231. Keating then filed this petition for judicial review.

II. Analysis

A. *This Court's Authority and the Issue on Appeal*

In section 4(e) of the Federal Power Act, Congress delegated to the Federal Power Commission, now the Federal Energy Regulatory Commission, the authority to issue licenses for the construction and operation of hydroelectric facilities. [16 U.S.C. § 797\(e\) \(1988\)](#). We have jurisdiction to review FERC's final order dismissing Keating's application under section 313(b) of the Federal Power Act. [16 U.S.C. § 8251\(b\) \(1988\)](#).

The dispute between Keating and the Commission is relatively narrow: whether the blanket certification issued by California in October 1986 continues in effect for Keating's Tungstar project or whether California's claimed revocation of that approval in April 1987 effectively blocks the issuance of the FERC license. It is clear on these facts that the resolution of this dispute is controlled by a provision of federal law, section 401(a)(3) of the Clean Water Act. The only question remaining is who must apply that provision—FERC or the state courts.

At first blush, the record in this case suggested that state and federal authorities had overlapping, and seemingly conflicting, authority in connection with Keating's section 4(e) license application. Thus, it appeared that this case might pose an impossible dilemma with respect to the jurisdiction of federal and state agencies to enforce the Clean Water Act. Upon careful consideration, however, the facts at **350 hand are relatively straightforward and the applicable legal standards are not unclear.

At bottom, this case strictly concerns an application of section 401(a)(3) of the Clean Water Act. *See* note 2 *supra*. The Army Corps of Engineers first received state certification under section 401 for its section 404(e) nationwide permits. The Corps then issued permits, one of which covered Keating's project. The Corps deemed the state certification underlying its permits to be final and unqualified, at least insofar as Keating's project was concerned. *See* note 4 *infra*. Thus, the state certification underlying the Corps permit should have been sufficient under section 401(a)(3) to support Keating's application for a section 4(e) license from FERC. Under section 401(a)(3), the only way that FERC could reject the prior certification as *622 insufficient to support the section 4(e) license application was upon a finding that the State of California, within 60 days after proper notice,

gave notice to FERC that there was “no longer reasonable assurance that [Keating would comply with the applicable water quality standards] ... because of *changes* since the [issuance of California's 1986 blanket certification] ... in (A) the construction or operation of the facility, (B) the characteristics of the waters into which such discharge is made, (C) the water quality criteria applicable to such waters or (D) applicable effluent limitations or other requirements.” [33 U.S.C. § 1341\(a\)\(3\) \(1988\)](#). In other words, a state may revoke a prior certification that might otherwise support a subsequent license application, but only pursuant to the terms of, and for the reasons indicated in, section 401(a)(3).

Thus, this case boils down to an analysis of whether FERC was justified in refusing to recognize the state certification underlying the Corps permit as valid and sufficient for purposes of Keating's subsequent application for a section 4(e) license. Stated alternatively, the question before us focuses on FERC's authority to decide whether the state's purported revocation of its prior certification satisfied the terms of section 401(a)(3). We have no doubt that the question posed is a matter of federal law, and that it is one for FERC to decide in the first instance.

B. *The Statutory Framework*

In designing the Clean Water Act, Congress plainly intended an integration of both state and federal authority. Although federal licenses are required for most activities that will affect water quality, an applicant for such a license must first obtain state approval of the proposed project. *See* [33 U.S.C. § 1341\(a\)\(1\) \(1988\)](#). The states remain, under the Clean Water Act, the “prime bulwark in the effort to abate water pollution,” *see* [United States v. Puerto Rico](#), [721 F.2d 832, 838 \(1st Cir.1983\)](#), and Congress expressly empowered them to impose and enforce water quality standards that are more stringent than those required by federal law, *see* [33 U.S.C. § 1370 \(1988\)](#). At the very outset of the statute, Congress made clear that

[i]t is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use ... of land and water resources, and to consult with the Administrator in the exercise of his authority under this chapter.

[33 U.S.C. § 1251\(b\) \(1988\)](#).

One of the primary mechanisms through which the states may assert the broad authority reserved to them is the

certification requirement set out in section 401 of the Act. Section (a)(1) of that provision says that no federal license or permit may be granted in the absence of the requisite state certification indicating that no state water quality standards will be violated by the proposed project. *See* [33 U.S.C. § 1341\(a\)\(1\) \(1988\)](#). Through this requirement, Congress intended that the states would retain the power to block, for environmental reasons, local water projects that might otherwise win federal approval. *See* [Marathon Development, 867 F.2d at 99–100](#); 2 W. Rodgers, Jr., *Environmental Law: Air and Water* § 4.2, at 26 (1986) (“Section 401 offers a veto power to states with water quality related concerns about licensing activities of the various federal agencies, including the Environmental Protection Agency, Federal Energy Regulatory Commission, Corps of Engineers, and the Nuclear Regulatory Commission.”).

There is no doubting that FERC is bound by federal law to refuse a section ****351** 4(e) license application that is unsupported by a valid state certification under section 401. *See* [33 U.S.C. § 1341\(a\)\(1\) \(1988\)](#); [City of Fredericksburg, 876 F.2d at 1111](#). Nor do we doubt the propriety of a federal agency's refusal to review the validity of a state's decision to grant or deny a request for certification in the first instance, before any federal license or permit has yet been issued. Such a decision presumably turns on questions of substantive state environmental law—an area that Congress expressly intended to reserve to the states and concerning which federal agencies have little competence. It is for these reasons that a number of courts have held that disputes over such matters, *at least so long as they precede the issuance of any federal license or permit*, are properly left to the states themselves. *See* [Marathon Development, 867 F.2d at 102](#); [Proffitt v. Rohm & Haas, 850 F.2d 1007, 1009 \(3d Cir.1988\)](#) (dictum); [Roosevelt Campobello Int'l Park Comm'n v. EPA, 684 F.2d 1041, 1056 \(1st Cir.1982\)](#); [Lake Erie Alliance for the Protection of the Coastal Corridor v. United States Army Corps of Eng'rs, 526 F.Supp. 1063, 1074 \(W.D.Pa.1981\), aff'd mem., 707 F.2d 1392 \(3d Cir.\), cert. denied, *623 464 U.S. 915, 104 S.Ct. 277, 78 L.Ed.2d 257 \(1983\)](#); [Mobil Oil Corp. v. Kelley, 426 F.Supp. 230, 234–36 \(S.D.Ala.1976\)](#).

The certification power of the states under section 401 is not, however, unbounded. Whatever freedom the states may have to impose their own substantive policies in reaching initial certification decisions, the picture changes dramatically once that decision has been made and a federal agency has acted upon it. Thus, under section (a)(3) of section 401, Congress created a presumption that a state certification

issued for purposes of a federal construction permit will be valid for purposes of a second federal license related to the operation of the same facility.³ A state may overcome that presumption and revoke certification for purposes of the second federal license, but only under limited circumstances expressly defined in the statute. *See* note 2 *supra*.

³

The applicable portion of section 401(a)(3) provides:

The certification obtained pursuant to paragraph (1) of this subsection with respect to the construction of any facility shall fulfill the requirements of this subsection with respect to certification in connection with any other Federal license or permit required for the operation of such facility unless, after notice to the certifying State, [specified changed circumstances are present]....

[33 U.S.C. § 1341\(a\)\(3\) \(1988\)](#).

C. Keating's Case

As indicated above, it is obvious that section 401(a)(3) controls the disposition of this case. The Commission did not doubt that a valid state certification had been granted by California for activities covered by the Corps' nationwide permits. Nor can it be doubted, given that section 401 certification is a predicate to the issuance of any section 404 permit, and that a Corps dredge-and-fill permit *is* a federal permit “with respect to the construction of a [] facility” within the meaning of section 401(a)(3). It is also significant that the Commission made an express finding that a “Corps section 404 permit for the Tungstar Project [had] ... issued and [was] ... final,” *see Rehearing Order*, 49 F.E.R.C. at 62,230, a conclusion that has been reinforced by the Corps itself.⁴ From these facts, it is clear that section 401(a)(3) governs the validity of California's attempt, after a valid Corps section 404 permit had issued, to revoke its prior certification for purposes of Keating's second federal license application.

⁴

Corps officials have indicated that the nationwide permit issued under section 404 remains valid for purposes of Keating's project despite California's attempted revocation of the certification underlying it. *See* Letter from B.N. Goode, Chief, Regulatory Branch, U.S. Army Corps of Engineers, to John H. Tait (Mar. 10, 1989) (“If a state ‘decertifies’ a general or individual permit after the Corps has issued the permit in good faith reliance on the original certification, the Corps does not recognize an obligation to revoke the Corps permit but may elect to modify or revoke the permit at its own discretion....”), *reprinted in* App. Tab 13.

The arguably equivocal language used in California's section 401 certification to the Corps does not require a contrary result. We recognize the authority of states to impose express conditions upon the issuance of a particular certification. When states make compliance with specified conditions a prerequisite to the effectiveness of a certification, the federal Government has been prepared to enforce those conditions. See *Roosevelt Campobello*, **352 684 F.2d at 1055–57; 33 U.S.C. § 1341(d) (1988); 33 C.F.R. §§ 325.4(a)(1), 330.9(a) (1990) (Corps section 404 permits will incorporate conditions specified by states in underlying section 401 certifications). In this case, however, we are confronted not by any such conditions precedent, but rather by the state's claim of a general reservation of discretionary authority to revoke prior blanket certification as to particular projects at any time and apparently for any reason. Such a broad reservation of authority cannot be squared with Congress' purpose in section 401(a)(3). The statute allows a state to revoke a prior certification only within a specified time limit and only pursuant to certain defined circumstances; if a state could revoke a prior certification at any time and for any (or no) reason, however, section 401(a)(3) would be rendered meaningless. Obviously, such a result would make no sense.

It is the applicability of section 401(a)(3) that separates this case from those relied upon by FERC in asserting that the validity of a state's action in connection with certification is a question exclusively for the state courts. It is true that some of those cases suggested broadly that “certification under Section 401 is set up as an exclusive p[r]erogative of the state and is not to be reviewed by ... any agency of the federal government.” See *Mobil Oil*, 426 F.Supp. at 234. But, to our knowledge, none of those cases involved a situation in which a state sought to revoke certification after a federal agency had already issued a *624 permit based upon the state's earlier approval—*i.e.*, the scenario contemplated by section 401(a)(3). In *Mobil Oil*, for instance, upon which FERC relies heavily, a state agency granted section 401(a)(1) certification to a project for purposes of a Corps of Engineers drilling permit and then revoked that certification *before* the Corps had acted upon the application. Because no federal permit had yet been issued, section 401(a)(3) had no application and the court found no federal law purporting to control the state's action. The court's decision in that context to abstain from intervening in the state's certification decision in no way suggests, however, that this court should follow suit, given that a Corps permit has already issued in Keating's case and that section 401(a)(3) clearly applies.

D. Applying Section 401(a)(3)

As we have suggested, section 401(a)(3) permits state revocation of prior certification only if certain conditions are met. The first is timeliness: the state must notify the relevant federal licensing agency of its intention to revoke within 60 days of the time it is itself notified that a new license application is pending. The second is that the revocation be driven by some change in circumstances “since the construction license or permit certification was issued.” See 33 U.S.C. § 1341(a)(3) (1988). If either of these conditions is not met—if the state's decision comes too late or if it is not pursuant to changed circumstances—then the attempted revocation is invalid as a matter of federal law and no further inquiry is needed.

There can be no serious claim that FERC is without *any* authority to consider the validity of a state's purported revocation of a prior certification under section 401(a)(3). At a minimum, FERC must find that the purported revocation is timely and that the state's action was assertedly taken in response to *changed circumstances* pursuant to section 401(a)(3). In this case, there is no claim that the state's objection to FERC was untimely,⁵ but neither is there any suggestion that the state's purported revocation came “because of *changes* since the [Corps] ... permit certification was issued.” 33 U.S.C. § 1341(a)(3) (1988) (emphasis added). This is a matter that FERC must consider on remand.

⁵ In fact, it is unclear whether the state was ever given the official federal notice that is contemplated under section 401(a)(3). The 60-day time limit for state objection set out in that section is not triggered until the state receives notice from the second federal licensing authority that there is a pending license application premised upon the state's earlier certification. Thus, in assessing the timeliness of California's asserted revocation on remand, FERC must first determine whether and when it notified the state of Keating's section 4(e) license application.

If FERC finds that the state's revocation was both timely and assertedly because of changed circumstances, then the question will arise whether the motivating change in circumstance falls within one of the four **353 categories specified in section 401(a)(3).⁶ FERC has suggested, without any good explanation, that Keating's sole recourse for resolution of this question is before a state agency or a state court. We recognize that, in certain cases, the resolution of a disputed claim over “changed circumstances” under section 401(a)(3) may involve a question of state law or an

application of state water quality standards, neither of which is within the expertise or normal jurisdiction of FERC. In such a situation, we could hardly doubt the wisdom of FERC'S declination of jurisdiction to resolve the section 401(a)(3) question. However, other cases might arise regarding claims of “changed circumstances” under section 401(a)(3) that easily can be resolved by FERC, without resort to consideration of state law or the applicable water quality standards.

⁶ The motivating change in circumstances must be related to:

(A) the construction or operation of the facility, (B) the characteristics of the waters into which such discharge is made, (C) the water quality criteria applicable to such waters or (D) applicable effluent limitations or other requirements.

[33 U.S.C. § 1341\(a\)\(3\) \(1988\)](#).

FERC has been too quick to assume that it has no role to play in the application of section 401(a)(3). It is true that the state, alone, decides whether to certify under section 401(a)(1). The issue under section 401(a)(3), however, involves a different question, *i.e.*, one going to the authority of a *federal* agency to issue a *federal* permit or license once the state has already issued a certification. A state can affect federal authority under section 401(a)(3) only to the extent therein indicated. Thus, the application of section 401(a)(3) involves a federal question that, absent satisfactory explanation, presumably must be resolved by the applicable federal licensing authority and the federal courts. *Cf. New Orleans Pub. *625 Serv., Inc. v. Council of New Orleans*, 491 U.S. 350, 109 S.Ct. 2506, 2512–13, 105 L.Ed.2d 298 (1989) (“We have no more right to decline the exercise of jurisdiction which is given, than to usurp that which is not given.... [T]he courts of the United States are bound to proceed to judgment and to afford redress to suitors before them in every case to which their jurisdiction extends. They cannot abdicate their authority or duty in any case in favor of another jurisdiction.”) (inner quotation marks and citations omitted).

In any event, FERC has given no adequate explanation in this case for its refusal to apply section 401(a)(3). We offer no final judgment on this question, save to say that FERC must at least decide whether the state's assertion of revocation satisfies section 401(a)(3)'s predicate requirements—*i.e.*, whether it is timely and motivated by some change in circumstances after the certification was issued. Beyond that, assuming the predicate requirements are met, we do not decide whether FERC must go on to determine whether the asserted

changed circumstance falls within one of section 401(a)(3)'s enumerated categories. FERC must, however, either decide the question itself or articulate a satisfactory explanation for why Congress would have intended to leave the application of some or all of section 401(a)(3)'s categorical provisions to the state courts alone.

III. Conclusion

For the foregoing reasons, the petition for review is granted and the case is remanded to the Commission for further proceedings.

So ordered.

On Intervenor's Petition for Rehearing

May 10, 1991.

PER CURIAM:

Upon consideration of the petition for rehearing filed by intervenor, the State of California, it is hereby ordered that the petition is denied. We find no merit in this petition, and only one of the arguments raised warrants a response.

California now argues, for the first time, that section 401(a)(3) of the Clean Water Act, [33 U.S.C. § 1341\(a\)\(3\) \(1988\)](#) -- the statutory provision found to be controlling in this case -- has no application here because the so-called dredge-and-fill permit issued to Keating by the Army Corps of Engineers (“the Corps”) is not a permit “with respect to the construction of a[] facility” within the meaning of the statute. This argument comes too late, for it presents an entirely new theory of this case which cannot be appropriately raised on a petition for rehearing.

As was noted in the panel opinion in this case, section 401(a)(3) “create[s] a presumption that a state certification issued for purposes of a federal construction permit ****354** will be valid for purposes of a second federal license related to the operation of the same facility.” *Keating v. FERC*, 927 F.2d 616, 623 (D.C. Cir. 1991) (footnote omitted). Throughout this litigation, it has been Keating's contention that because he had earlier obtained state certification for a dredge-and-fill permit from the Corps -- a permit that Keating needed in order to begin construction work at his proposed hydroelectric facility

-- section 401(a)(3) mandated that this certification would also be valid for purposes of obtaining a subsequent license from the Federal Energy Regulatory Commission (“FERC”).¹

¹ California does not dispute that the FERC license for which Keating applied is one “required for the operation of [Keating's proposed] . . . facility” within the meaning of section 401(a)(3). In fact, in its original brief before this court, California noted that “Keating [had] applied to [FERC] . . . for a license *to operate* the Tungstar hydropower project.” Brief for Intervenor State of California at 3 (emphasis added).

During the proceedings before the agency, in their original briefs and at oral argument before this court, neither FERC nor California ever disputed Keating's assertion that a Corps dredge-and-fill permit is one for which state certification is required under 401(a)(1), and that such a permit is a “construction” permit within the contemplation of section 401(a)(3). For purposes of this litigation, we accepted these assertions as given. Both FERC and California limited their arguments principally to a claim that state courts

have exclusive jurisdiction to review all disputes over state certifications under section 401(a)(1). It was not until the instant petition for rehearing that California raised for the first time a claim that the Corps permit is not a permit “with respect to the construction of a[] facility” within the meaning of the statute. *626 Because California failed to raise this argument until its petition for rehearing, the argument is waived and we decline to reopen the matter now.

We offer no view on whether, upon proper submission and review, it might be found that a Corps permit is not a “construction” permit within the contemplation of section 401(a)(3). Nothing in our decisions should be read to foreclose any party from raising this issue as may be appropriate in future litigation.

All Citations

927 F.2d 616, 288 U.S.App.D.C. 344, 21 Env'tl. L. Rep. 20,692

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DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On February 22, 2022, I served the:

- **Notice of Opportunity to File Written Comments on Proposed Dismissal of Test Claim issued February 22, 2022**
- **Test Claim filed by the Turlock Irrigation District and the Modesto Irrigation District on January 14, 2022**

Floodplain Restoration Condition (no. 12) of Water Quality Certification for Turlock Irrigation District and Modesto Irrigation District – Don Pedro Hydroelectric Project and La Grange Hydroelectric Project, 21-TC-02

Turlock Irrigation District and Modesto Irrigation District, Claimants

by making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on February 22, 2022 at Sacramento, California.



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COMMISSION ON STATE MANDATES

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Claimants: Modesto Irrigation District
Turlock Irrigation District

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