

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

DIVISION OF WATER RIGHTS

**IN THE MATTER OF PERMITS 11885, 11886 AND 11887 AND LICENSE 1986
(APPLICATIONS 234, 1465, 5638 AND 23, RESPECTIVELY) OF
U.S. BUREAU OF RECLAMATION**

**PETITIONS FOR CHANGE PURSUANT TO
WATER CODE SECTIONS 1700 AND 1707**

SOURCE: San Joaquin River

COUNTIES: Fresno, Madera, Tulare, Kern, Merced, Stanislaus, Contra Costa, Alameda, San Joaquin
and Sacramento

ORDER APPROVING CHANGE AND INSTREAM FLOW DEDICATION

BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

1. BACKGROUND

On May 9, 2012, the U.S. Bureau of Reclamation (Reclamation) submitted petitions for change pursuant to Water Code sections 1700 and 1707 with the State Water Resources Control Board (State Water Board), Division of Water Rights (Division). Reclamation seeks modification to its water right permits for the purpose of implementing the provisions of the 2006 Stipulation of Settlement (Settlement) in *Natural Resources Defense Council et al. v. Rodgers et al.*, and the San Joaquin River Restoration Settlement Act (Settlement Act), Public Law No. 111-11, § 10001 et seq., 123 Stat. 991, 1349 (2009). The Settlement addresses restoration of fish habitat in the San Joaquin River below Friant Dam and ends an 18-year legal dispute over the operation of Friant Dam. The parties that entered into the Settlement include the United States Departments of the Interior and Commerce, Friant Water Users Authority (a public agency serving 20 member water districts), and the Friant Defenders (a coalition of environmental organizations led by the Natural Resources Defense Council). The San Joaquin River Restoration Program (SJRRP or restoration program) was established to implement the Settlement. Congress provided federal authorization for implementing the Settlement in the Settlement Act.

The Settlement establishes two primary goals: (1) to restore and maintain fish populations, including Spring-run Chinook Salmon (salmon), in good condition in the mainstem of the San Joaquin River below Friant Dam; and (2) to reduce or avoid adverse water supply impacts to the Friant Division long-term contractors that may result from the restoration program. The restoration program involves a series of projects to improve the river channel in order to restore and maintain healthy salmon populations. Flow restoration is to be coordinated with channel improvements. At the same time, the Settlement limits water supply impacts to Friant Division long-term water contractors by providing for new water management measures, including the recirculation and recapture of released water and the creation of a recovered water account.

The Settlement provides for releases of both interim flows and restoration flows. The purpose of the interim flows is to collect relevant data on flows, temperatures, fish needs, seepage losses, and water recirculation, recapture and reuse. The interim flow program began on October 1, 2009 pursuant to Order WR 2009-0058-DWR, and was continued under Orders WR 2010-0029-DWR and Division Order

dated September 30, 2011. The present order is a long-term authorization to modify Reclamation's water rights to implement the long-term restoration program.

2. PETITIONS

On May 9, 2012, Reclamation submitted petitions for change pursuant to Water Code sections 1700 and 1707 for the above-referenced water right permits. The petitions request authorization to change the method of operation of the Friant Division of the Central Valley Project (CVP) in order to implement the provisions of the Settlement and the Settlement Act. Reclamation seeks to (1) add points of diversion, (2) add the San Joaquin River channel within the designated reaches to the place of use, and (3) add preservation and enhancement of fish and wildlife resources as an authorized purpose of use within: (a) the San Joaquin River channel and (b) on designated service area maps. The purpose of use of all four water rights will be conformed to municipal, domestic, irrigation, incidental domestic, stockwatering, fish and wildlife preservation and enhancement and recreational.

Water will be released to the natural watercourse of the San Joaquin River for the instream flow dedication, but due to capacity issues, both natural and artificial conveyance means may be utilized to facilitate flow throughout the designated stretch of the river.

Reclamation proposes to dedicate for instream use in the stream channel from Friant Dam to the Sacramento-San Joaquin Delta Estuary (Delta): (a) water released from Millerton Reservoir that was previously collected to storage and that subsequently remains under its dominion and control, and (b) water taken, and subsequently remaining, under dominion and control through the exercise of direct diversion rights at Friant Dam but allowed to pass into the river channel in lieu of being conveyed into and through canals. Water collected to storage would be released downstream at Friant Dam or water that would otherwise be directly diverted at Friant Dam would be bypassed for the beneficial use of preservation and enhancement of fish or wildlife. In lieu of making deliveries to Reclamation's contractors from the Delta-Mendota Canal (DMC), releases of stored water would remain instream and subsequently be diverted at and near Mendota Dam for delivery through various canals and to flow through Mendota Dam. Similarly, water taken through the exercise of direct diversion rights at Friant Dam would remain instream and subsequently be diverted at and near Mendota Dam for delivery through various canals and to flow through Mendota Dam. Water would also be diverted into the Arroyo Canal and would flow past Sack Dam and would also be conveyed through the Sand Slough Control Structure to and through the Eastside Bypass. Water in the Eastside Bypass would thence flow through the Mariposa Bypass and thence the San Joaquin River and would also continue to flow through the Eastside Bypass to Bear Creek. Water would be re-diverted along the Eastside Bypass at designated locations both north and south of the Mariposa Bypass. Water in Bear Creek would thence continue to flow into the San Joaquin River. Once additional channel improvements are made, water would also flow past Sack Dam and continue in the San Joaquin River channel.

The place of use for instream beneficial uses would include the San Joaquin River from Friant Dam to the San Joaquin River near Vernalis (including portions of the Eastside and Mariposa Bypasses), and thence to the Delta channels at the Jones and Banks Pumping Plants.

In addition to diverting water into various canals downstream of Friant Dam, Reclamation plans to divert water at the Jones and Banks Pumping Plants and at the San Luis Dam for delivery within the existing place of use to meet demands of the Friant Division of the CVP. However, recirculation of recaptured water to the Friant Division could require mutual agreements between Reclamation, Department of Water Resources (DWR), Friant Division long-term contractors, and other south-of-Delta CVP/State Water Project (SWP) contractors. (DPEIS/R, p. 2-36.) Also, SJRRP water in San Luis Reservoir could be used for the benefit of Friant Division CVP contractors through subsequent transfers and/or exchanges. In addition to direct use, water made available as a result of the proposed changes could be utilized through subsequent transfer and/or exchange actions separate from this action to facilitate the recapture and recirculation plan. (DPEIS/R, P. 2-36.)

It is anticipated that recapture and recirculation may occur in the future at Patterson Irrigation District, West Stanislaus Irrigation District, and/or Banta-Carbona Irrigation District facilities.

The petitions included proposed water right conditions that were subject to changes based on agreements with protestants and language alterations to conform to appropriate permit conditions. These are included as conditions of this Order.

3. PROTESTS

The State Water Board issued notice of the petitions on May 18, 2012. Any protests were required to be submitted by June 18, 2012. Protests were filed by: (1) San Joaquin Tributaries Authority¹ (SJTA); (2) the Exchange Contractors² and the San Joaquin River Resource Management Coalition (collectively, Exchange Contractors); (3) the San Luis and Delta-Mendota Water Authority and Westlands Water District (collectively, SLDMWA³), and (4) Paramount Farming Company (Paramount).

The following persons or entities joined in the Exchange Contractors protest: D.T. Locke Ranch, Inc., Gary and Mari Martin, Pikalok Farming, Bowles Farming Company, Inc., Nickel Family LLC, and Wolfsen Land and Cattle Company, Inc. (Wolfsen). The response to the Exchange Contractors constitutes the response to the other joined parties, with the exception of Wolfsen. Wolfsen filed supplemental comments not included in the Exchange Contractors protest and these were separately evaluated.

On June 26, 2012, the State Water Board received the protest of Farmers Water District, seeking to join in the Exchange Contractors protest. Although the protest was dated June 18, 2012, it was not timely filed and is not further considered. As noted below, the Exchange Contractors have resolved their protest.

A. *SLDMWA Protest*

On August 31, 2012, SLDMWA informed the State Water Board that its protest had been unconditionally withdrawn.

B. *Exchange Contractors Protest*

On October 19, 2012, the Exchange Contractors advised the State Water Board that its protest had been conditionally resolved. Resolution was contingent on inclusion of an additional point of diversion at the Mowry pumps and recognition of specific commitments made in section 6.2 the Record of Decision (ROD). The Mowry pumps have been added as diversion facilities in Reclamation's amended rights, and the preparation and submittal of an Annual Work Plan consistent with section 6.2 of the ROD is included as a condition in the amended water rights.

¹ SJTA is a California joint-powers authority comprised of the Oakdale, South San Joaquin, Turlock, Modesto and Merced Irrigation Districts, and the City and County of San Francisco.

² The Exchange Contractors are comprised of four agencies: the Central California Irrigation District (CCID), the San Luis Canal Company, the Firebaugh Canal Water District, and the Columbia Canal Company.

³ The SLDMWA member agencies include: Banta-Carbona Irrigation District; Broadview Water District; Centinella Water District; City of Tracy; Del Puerto Water District; Eagle Field Water District; Fresno Slough Water District; James Irrigation District; Laguna Water District; Mercy Springs Water District; Oro Loma Water District; Pacheco Water District; Panoche Water District; Patterson Water District; Plain View Water District; Reclamation District 1606; San Benito County Water District; San Luis Canal Company; San Luis Water District; Santa Clara Valley Water District; Tranquillity Irrigation District; West Side Irrigation District; West Stanislaus Irrigation District; Westlands Water District; and Widren Water District.

Note also that protective mitigation and monitoring measures from past Temporary Urgent Change Petition Orders on the SJRRP are included in the order section below and in Reclamation's amended water rights

C. *Persons Joining in Exchange Contractors Protest*

On October 19, 2012, Division staff provided opportunity for the persons that had joined in and incorporated the Exchange Contractors protest into letters protesting Reclamations' petitions to identify whether there were any unresolved concerns. Response was required to be submitted by November 19, 2012. The protestants were informed that failure to respond would result in protest dismissal. No response was received. Therefore, the protests of D.T. Locke Ranch, Inc., Gary and Mari Martin, Pikalok Farming, Bowles Farming Company, Inc., Nickel Family LLC, and Wolfsen Land and Cattle Company (only insofar as the Wolfsen protest adopted and incorporated the Exchange Contractors protest) were dismissed on November 19, 2012.

D. *SJTA Protest*

On July 10, 2013, the Division informed SJTA that the record supported a finding of non-injury and the protest would be considered cancelled on August 9, 2013 if SJTA did not provide further information in support of its protest. No additional information was submitted. The protest was cancelled on August 9, 2013.

E. *Paramount*

Paramount advised the Division that its protest was conditionally resolved on September 11, 2013. The following conditions are included in Reclamation's amended water rights: (a) notification when flows in excess of the flows needed to satisfy CVP purposes are available instream; and (b) Reclamation will not object to Paramount's use of such flows.

F. *Wolfsen*

The protest filed by Wolfsen Land & Cattle Company, Inc. (Wolfsen) is based on three remaining protest assertions. The claim that Reclamation lacks sufficient water to meet contractual obligations to the Exchange Contractors was dismissed November 19, 2012, contingent on inclusion of an additional point of diversion at the Mowry pumps and recognition of specific commitments made in the ROD. (See discussion B and C above.) To facilitate review and analysis, the remaining protest assertions are separately listed and addressed below.

Protest Assertion 1:

Reclamation does not own the water it intends to release for fish flows. Water right License 1986 was issued for irrigation, stockwatering and domestic purposes on designated agricultural lands. License 1986 was conveyed to Reclamation from its original owner solely for agricultural uses. There was no fish preservation enumerated in this right. Permits 11885, 11886 and 11887 have a similar issue.

Wolfsen does not provide any support for a right to revert to the original owners if the purpose of use changed. Henry Miller (Miller-Lux) assigned License 1986 to Reclamation October 30, 1939. (Assignment by Miller & Lux Incorporated to the United States of America of Application 23 and Permit No. 273.) The conveyance documents do not contain language to suggest that the transfer was limited to, or contingent on, the water being applied for irrigation only. The assignment document provides that "Vendors [Miller & Lux, Inc. and Gravelly Ford Canal Co] agreed to convey to the United States certain rights to store, divert and use waters of the San Joaquin River... as set forth in Article 9, subdivision (a) of said contract [contract dated July 27, 1939]..." That contract provided that Vendors "assign, transfer and

set over to the United States its right, title and interest in and to all fillings...and appropriations... necessary to enable the United States to use and enjoy the rights to be conveyed...." (Assignment, p. 2.) Under Article 9, subdivision (a) of the Purchase Contract, Vendors agree "to grant, sell, convey and confirm unto the United States, its successors and assigns forever, the right as against them, and each of them, their successors and assigns, and as against the lands, canals and other properties of Vendors, the right to divert, store and use, by means of Friant Dam, diversion works, or other works, perpetually, each and every year, from and after the delivery of the deed and deed of reconveyance and the payment of the purchase price as hereinafter provided, all of the waters of the San Joaquin River...."

Wolfsen asserts that under the Water Sales Contract, water title and ownership is retained by Miller-Lux and its successor owners of the land (namely Wolfsen) if Reclamation ever seeks to use the water for any non-irrigation purpose. Wolfsen's only support for this argument is the water right license itself, which lists irrigation as the purpose of use. All permits and licenses specify the purpose of use, but that specification does not freeze for all time the water right holders' options to change or add purposes of use. Reclamation is the sole owner of License 1986, and may use its right in a manner that it chooses so long as it does not injure other legal users of water and/or violate the public trust. Reclamation has complied with the statutory requirements for requesting modification of its water rights.

Approval of the SJRRP petitions under the permits and license will be conditioned to protect existing contractual rights arising from the Miller/Lux contract. The water right condition is listed below:

To the extent that Reclamation shall divert water from San Joaquin River at Friant Dam under rights initiated other than pursuant to Applications 23, 234, 1465 and 5638, the amount of water diverted under rights issued pursuant to said applications shall be reduced by a like amount.

Wolfsen asserts that Permits 11885, 11886 and 11887 have a similar issue to the issue raised for License 1986. As discussed above, the applicable Miller-Lux conveyance documents contain no right of reverter or other indication that the rights were not transferred in full. Moreover, Wolfsen did not provide any substantiation that these permits were held by Miller-Lux or subject to contract with Miller-Lux. Permits 11885 and 11886 were originally held by Madera Irrigation District, and subsequently assigned to Reclamation. Permit 11887 is a State filed Application originally held by the State Water Board's predecessor agency.⁴ Permit 11887 explicitly provides that the right is "subject to the right to change the point of diversion, place of use, and purpose of use as provided in Chapter 10 of Part 2 of Division 2 of the Water Code of the State of California...." (Permit 11887 at 11(a).) This permit language expressly articulates the law applicable to all appropriate water rights, including License 1986, and Permits 11885 and 11886.

Accordingly, this protest issue is canceled pursuant to Water Code section 1703.6, subdivision (d).

Protest Assertion 2:

Use of the Eastside Flood Control Bypass (Bypass) will constitute an unlawful trespass upon Wolfsen's property without prior just compensation because he sold only a limited winter flood water easement to the Flood District to construct the Bypass for flood waters.

The access issue has been temporarily addressed. Wolfsen provided a copy of the June 28, 2012 Agreement for Access and to Convey Flows on Wolfsen lands (Reclamation Contract Number 12-LC-20-0177) and the May 28, 2013 letter extending the access agreement until June 28, 2014. Protestant's remaining claims for just compensation are similar to those made through litigation in the case *Wolfsen Land & Cattle Company v. United States of America*, Case No. 10-580L, United States Court of Federal Claims. The State Water Board does not adjudicate disputes over the right to occupy or use land as part of a proposed water project. (Cal. Code Regs., tit. 23, § 777.) Instead, those issues may be resolved through negotiations or litigation among those who claim rights to the land in question. A dispute

⁴ The State of California, Department of Finance.

concerning the right to occupy land is not a reason to deny a water right change petition. (*Id.*)

California Code of Regulations, title 23, section 749 provides that a protest issue may be rejected if it fails to raise a valid ground for protest. This protest issue does not raise a valid ground for protest and is therefore rejected.

Protest Assertion 3:

The SJRRP flows in the Bypass will cause flooding, seepage, erosion, loss of access to farmland, and related physical damage to Wolfsen's property along the Bypass. Also, Wolfsen will not be able to travel from one side of the ranch to the other side through the Bypass, as was always done in the past dry spells, since there will be water in the Bypass.

The EIS/EIR proposed a number of mitigation measures that are responsive to the Wolfsen concerns regarding flooding and seepage. After the final EIS/R was issued, the Division's August 1, 2012 letter afforded Wolfsen an opportunity to inform the Division whether there was any additional information that it wanted the Division to consider. Wolfsen did not submit any additional information. Thus, there does not appear to be any material dispute as to facts regarding the evaluation of project impacts and related mitigation measures in the final EIS/R.

Moreover, there has been no evidence developed during the temporary operation period that the water right conditions associated with both the temporary annual orders and the long-term change petitions do not adequately protect legal users of water. Based on operating experience, the seepage control measures have resulted in Reclamation's limiting of SJRRP flows to only minimal flows downstream of Mendota Pool to date. Although flows downstream of Mendota Pool are expected to increase in the future, such increase is contingent on removal or reconstruction of instream flow impediments or implementation of other seepage control measures.

This Order continues the existing protective mitigation measures which were included in the previous temporary Orders of the State Water Board. Specifically, the Order requires Reclamation to: (a) obtain any necessary access agreements, (b) continue to meet contractual obligations, (c) implement the Seepage Monitoring and Management Plan, (d) limit flows to then-current channel capacities, (e) reduce flows as needed consistent with the Management Plan, Appendix D of the DPEIS/R, (f) require that Reclamation not exceed the maximum non-flood releases shown in Table 13-63, (g) implement the Mendota Pool Water Quality Response Plan, and (h) finalize the Recirculation Plan.

Wolfsen is seeking financial compensation from Reclamation on the assumption that damages will occur if water flows down the Bypass on a year-round basis. These claims for just compensation are similar to those made through litigation in the case *Wolfsen Land & Cattle Company v. United States of America*, Case No. 10-580L, United States Court of Federal Claims. The merits of these claims will be addressed through that litigation.

Now, therefore, the Wolfsen protest is disposed of and no further action is required.

4. CRITERIA FOR APPROVING THE PROPOSED CHANGE

Water Code section 1707 authorizes the use of the change petition provisions of Water Code section 1700 et seq. for a change for the purposes of preserving or enhancing wetlands habitat, fish and wildlife resources, or recreation in, or on, the water if the proposed change meets the following requirements:

- a. The proposed change will not increase the amount of water Reclamation is entitled to use.
- b. The proposed change will not unreasonably affect any legal user of water.

- c. Otherwise meets the requirements of Division 2 of the Water Code.

Similarly, the State Water Board must find that the change will not operate to the injury of any legal user of the water involved. (Wat. Code, § 1702.)

A. No Injury to Any Legal User of Water

In the petitions, Reclamation addressed whether there would be any legal injury to downstream prior right and riparian right holders, San Joaquin River Holding Contractors (Holding Contractors), Exchange Contractors and other Water Rights Settlement Contractors, Friant Division CVP Water Service Contractors, CVP and SWP Contractors including South-of-Delta Water Service Contractors, Eastside Division Water Service Contractors or Water Users on Eastside Tributaries, in-Delta Diversers and Contra Costa Water District and water for fish hatchery purposes. Sections 10004(g) and 10004(j) of the Settlement Act specifically provide that, except as provided in the Settlement Act, nothing in the act shall modify the rights and obligations of the parties to any contracts. In its supplement to its petitions (page 8), Reclamation indicates that the proposed change would not affect or expand existing obligations or increase demand for CVP water supplies.

1. Holding Contractors

The releases from Millerton Reservoir would be in addition to that quantity of releases otherwise required under the San Joaquin River Holding Contracts to maintain the 5 cfs requirement at Gravelly Ford and would not interfere with the ability of landowners from Friant Dam to Gravelly Ford to exercise existing riparian or overlying rights. Reclamation estimates that up to 230 cfs of flow is needed to maintain the 5 cfs flow requirement at Gravelly Ford. (Table 2-4 of DPEIS/R.)

2. Exchange Contractors

The Exchange Contractors receive water from the CVP by virtue of their contracts with Reclamation. Pursuant to these agreements, the Exchange Contractors forego diversion under their senior water rights on the San Joaquin River in exchange for delivery of an equal amount and supply from the CVP from sources other than the San Joaquin River. The Exchange Contractors members include landowners and water users along the San Joaquin River.

Reclamation and the Exchange Contractors entered into the Second Amended Contract for Exchange of Waters, Contract Ilr-1144, dated February 14, 1968. Under the terms and conditions of that contract, Reclamation is obligated to supply the Exchange Contractors with water delivered through the Delta Mendota Canal (DMC) or by other means. Reclamation delivers water to the Exchange Contractors at the Mendota Pool via the DMC. Under the contract, Reclamation can fulfill its contract obligations by delivering water to Mendota Pool through the DMC or through the San Joaquin River, at its discretion.

In its petitions, Reclamation states that the proposed change would not affect water delivery quantities to contractors outside the Friant Division, including the Exchange Contractors and various water right and settlement adjustment contractors. Reclamation will ensure that sufficient Millerton Reservoir storage is maintained, and that available San Joaquin River channel capacity is not impeded by the presence of Interim or Restoration Flows, in order to make releases of available storage from Millerton Reservoir in lieu of deliveries from the DMC if such releases become necessary under the terms and conditions of the Exchange Contract and various water right and settlement adjustment contracts. Necessary deliveries from the DMC pursuant to the terms and conditions of the Exchange Contract and various water right and settlement adjustment contracts will be made. Reclamation will also coordinate its operations of Friant Dam with the San Luis Canal Company (SLCC) and the Central California Irrigation District (CCID). SLCC operates Sack Dam at the end of Reach 3 and delivers water to the Arroyo Canal. CCID operates and maintains Mendota Dam in Reach 2 and would release Interim and Restoration Flows from Mendota Dam.

In addition, Reclamation concurred with inclusion of a condition recognizing its contractual obligations.

3. Friant Division CVP Water Service Contractors

The Friant Division CVP Water Service Contractors (Friant Division contractors) are signatories to the Settlement Act. As such, they have had opportunity to evaluate the impacts of the proposed changes and have agreed to accept the Interim Flow and Restoration Flow schedules. (See Settlement, ¶¶ 9-15, pp. 7:9-20:7.) Further, the signatories agreed to the Water Management Goal which is generally to be accomplished by redirecting, recapturing, reusing, exchanging or transferring the Interim and Restoration Flows and by establishing a Recovered Water Account to reduce or avoid impacts on Friant Division contractors who made water available for Interim or Restoration Flows. (See id., ¶ 16, pp. 20:8-22:21.)

4. Other CVP and SWP Contractors, Including South-of Delta Water Service Contractors

Reclamation's water rights are currently conditioned to require release of water at Friant Dam to maintain 5 cfs at Gravelly Ford and provide flows in accordance with the Exchange Contract. To prevent injury, a condition will be included in the amended water rights to clarify that Reclamation must continue to maintain sufficient Millerton Lake storage and available San Joaquin River channel capacity in order to make releases of available storage from Millerton Lake as required under the terms and conditions of the San Joaquin River Exchange Contract, IIR-1144, as amended February 14, 1968. However, the condition will clarify that the releases are only required to the extent such releases would be made in the absence of the change.

Reclamation evaluated water supply impacts in a Water Operations Model, which was circulated as an Appendix to the 2010 EA/IS for this project and referenced in the petitions. Millerton Lake is operated as a single-year reservoir, with no annual carryover, and is fully exercised (i.e., full to minimum storage) in virtually all years. This operational scenario did not change when SJRRP flows were included into the model. (WY 2010 EA/IS, p. 4-93.) Only minimal variation in seasonal Millerton Lake water level fluctuations is expected, and fluctuations in reservoir levels would remain within historical operational scenarios. (WY 2010 EA/IS, p. 4-93.) Reclamation evaluated whether substantial changes in water supply would occur for five geographic subareas and concluded that the additional instream flows would result in less than significant impacts to water supply in each of the subareas. (WY 2010 EA/IS, pp. 4-93 to 4-150.)

5. Downstream Prior Right and Riparian Right Holders

All water that is subject to the instream flow dedication would have remained in storage at Millerton Reservoir or would have been diverted into the Madera and Friant-Kern Canals for consumptive use in the Friant Diversion service area of the CVP. Water that would be present in the channel under the proposed change would be water diverted under existing permit and license terms and conditions but used for instream purposes instead of being diverted or rediverted at the Madera and Friant-Kern Canals for other beneficial use. Therefore, water would be dedicated to instream flow at Friant Dam without legal injury to downstream prior right and riparian water right holders.

Some of Reclamation's rights that are subject to this action include a provision that direct diversion is not authorized downstream of Friant Dam. The amended water rights will authorize direct diversion of water dedicated for instream purposes downstream of the dam. To ensure that diversions are not increased, the following condition is included in the amended water rights:

Direct diversion of flows originating downstream of Friant Dam is not authorized. Only water available at the Friant Dam point of diversion may be directly diverted downstream of the dam.

B. No Increase in Entitlement

In the petitions, Reclamation estimates that the total quantity of water proposed to be released or

bypassed at Friant Dam for subsequent downstream diversion is 623,000 af per year, measured at Gravelly Ford after Reach 1 losses, as shown in Table 2-4 of the DPEIS/R. The water subject to the petitions would normally be consumptively used by Friant Division contractors by means of deliveries through the Madera and Friant-Kern Canals or would remain in storage for other authorized purposes and uses. There would be no expansion of existing obligations, or any increases in demands, to provide CVP water.

C. No Unreasonable Effect on Fish, Wildlife, or other Instream Beneficial Uses

In its petitions, Reclamation states that the proposed change would not significantly affect fisheries resources. (Petition Supplement, pp. 13-14.) The EIR/EIS indicates that the proposed change would augment streamflow and provide generally high-quality water. Any flow modifications would be in coordination with the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), as applicable. Recapture of flows dedicated for instream purposes would occur only in compliance with regulatory requirements, including the USFWS and NMFS biological opinions or other requirements.

5. COMPLIANCE WITH CEQA

Reclamation and the Department of Water Resources (DWR) have prepared and certified a joint Programmatic Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) which covers the long-term implementation of the San Joaquin River Restoration Program, including interim and future restoration flows. Reclamation filed its Record of Decision (ROD) adopting the PEIS/R on September 28, 2012, and DWR filed its Notice of Determination on October 1, 2012. Additionally, Reclamation and DWR conducted environmental analysis under the National Environmental Policy Act (NEPA) and CEQA, respectively, for prior years' implementation of interim flows. These documents are a joint Environmental Analysis (EA)/Initial Study for the Water Year (WY) 2010 Interim Flows Project, and the resulting Finding of No Significant Impact (FONSI) and Mitigated Negative Declaration, finalized July 2010; Reclamation's EA and FONSI for the WY 2011 Interim Flows Project, finalized September 2010; and Reclamation's EA and FONSI for the WY 2012 Interim Flows Project, finalized September 2011. As a responsible agency under CEQA, the State Water Board has reviewed and considered these environmental documents in making a determination on the instant petitions.

The State Water Board action is limited to approval of the following aspects of the Settlement: release, conveyance, and recapture of Interim and Restoration flows; monitoring and management actions; and conservation measures. In its role as responsible agency, the State Water Board has included the applicable monitoring and management plans and water quality mitigation measures identified in the PEIS/R as conditions of this Order.

The PEIS/R identifies a series of potentially significant impacts on water resources and public trust uses within the State Water Board's jurisdiction. Attachment 1 is the State Water Board's Findings of Fact and Statement of Overriding Consideration for the SJRRP PEIS/R. Attachment 2 is the DWR Certification, Findings of Fact and Statement of Overriding Considerations for the SJRRP, PEIS/R. Attachment 3 is the State Water Board Mitigation Monitoring and Reporting Program.

The State Water Board will also issue a Notice of Determination within five days of the date of issuance of this Order.

NOW, THEREFORE, IT IS ORDERED THAT Reclamation's petitions for change and dedication of water for instream purposes pursuant to Water Code sections 1707 and 1700 are approved subject to the following conditions.

1. Direct diversion of flows originating downstream of Friant Dam is not authorized. Only water available at Friant Dam may be dedicated for preservation of fish and wildlife pursuant to Water Code section 1707 and subsequently utilized downstream of the dam at the authorized locations.
2. Any San Joaquin River Settlement Restoration Flows or Interim Flows that are recaptured and stored or routed through San Luis Reservoir shall be used consistent with the Settlement and Settlement Act. The water need not be delivered back to the Friant Division Contractors, but may be made available to others through transfers, exchanges and sales. Reclamation shall document that it has taken all practicable measures to provide contract water to the Friant Division Contractors, while complying with all other conditions of this water right.

One of these practicable measures shall include implementation of the February 2011 Draft Plan for the Recirculation, Recapture, Reuse, Exchange or Transfer of Interim and Restoration Flows, unless superseded by a final recirculation plan, which is anticipated by October 31, 2013. The Recirculation Plan may be revised and amended from time to time as the physical conditions in the river change due to implementation of the SJRRP. To the extent the Recirculation Plan or any revision thereto, includes components that are subject to state approval, such as additional exchanges or transfers, those components are subject to review, modification and approval by the State Water Board. The plan shall be timely implemented.

3. The SJRRP flows dedicated for the purpose of preservation and enhancement of fish and wildlife resources are in addition to that quantity of releases otherwise required to maintain the 5 cubic feet per second (cfs) requirement at Gravelly Ford and that would be sufficient to provide necessary flow in the river reach from Friant Dam to Gravelly Ford pursuant to the obligations of the Holding Contracts executed by Reclamation.
4. Reclamation shall dedicate water to instream beneficial uses to the extent possible in compliance with this Order and the terms and conditions of the Settlement and Settlement Act. Release volumes shall be in accordance with the water-year type allocation made using either the Restoration Flow schedules included in Exhibit B of the Settlement, or a more continuous hydrograph as listed below. (DPEIS/R, Figures 2-5 and 2-6) Release rates shall be in accordance with the schedule for release volumes of Interim and Restoration flows, also as listed below, subject to the additional releases called for in Paragraph 13 and Exhibit B of the Settlement, as described below (DPEIS/R, Table 2-4).

Figure 2-6 from DPEIS/R
 Continuous Annual Restoration Flow in Thousand Acre-feet (TAF)

Forecasted Water Year	Annual Flow	Continuous-Line Annual	Restoration Year Type
Inflow below Friant Dam (TAF)	Allocation (TAF) ¹	Flow Allocation (TAF)	
Less than 400	116.7	116.9	Critical-Low
Greater than 400 to 670	187.5	187.8	Critical-High
Greater than 670 to 930	300.8	272.3 to 330.3	Dry
Greater than 930 to 1,450	364.6	Greater than 330.3 to 400.3	Normal-Dry
Greater than 1,450 to 2,500	473.0	Greater than 400.3 to 574.4	Normal-Wet
Greater than 2,500	672.3	673.5	Wet

¹Friant Dam releases includes water for riparian water right holders in Reach 1 under "holding contracts", and instream flow dedication water.

Figure 2-5 from DPEIS/R

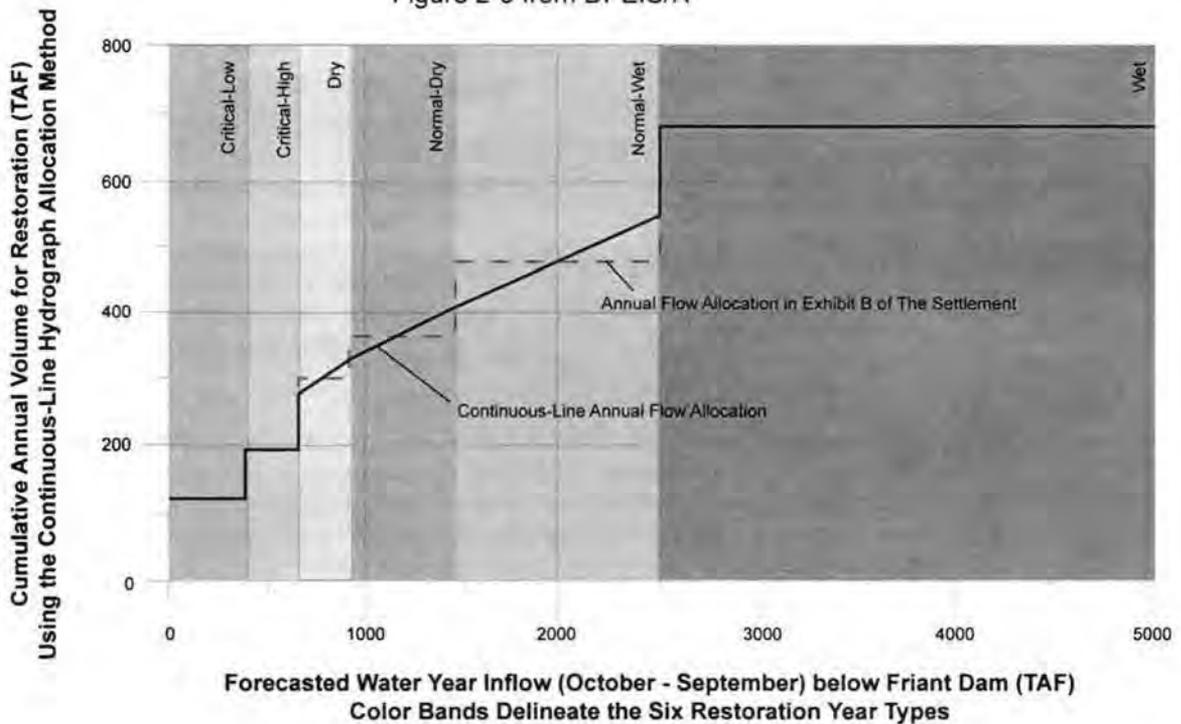


Table 2-4 from Draft PEIS/R.
Estimated Maximum Water Available for Instream Flow Dedication
Under Action Alternatives

Begin Date	End Date	Friant Dam Releases According to Settlement		Reach 1 Holding Contract Diversions Estimated as in Exhibit B1	Friant Dam Releases Eligible for Recapture ¹	
		(cfs)	(TAF)		(cfs)	(cfs)
10/1	10/31	350	22	160	190	12
11/1	11/10	700	14	130	570	11
11/11	12/31	350	35	120	230	23
1/1	2/28	350	41	100	250	29
3/1	3/15	500	14	130	370	10
3/16	3/31	1,500	48	130	1,370	43
4/1	4/15	2,500	74	150	2,350	70
4/16	4/30	4,000	119	150	3,850	115
5/1	6/30	2,000	242	190	1,810	219
7/1	8/31	350	43	230	120	15
9/1	9/30	350	21	210	140	8
Total flows released (TAF)			673	Total available for instream flow dedication² (TAF)		556
Potential buffer flows (TAF)			67	Potential buffer flows (TAF)		67
Potential additional releases pursuant to Paragraph 13(c)			100	Potential additional releases pursuant to Paragraph 13(c), minus seepage ³		0
Maximum total volume released (TAF)			840	Maximum total volume available for instream flow dedication (TAF)		623

Notes:

- 1 Under existing conditions, Friant Dam releases include water for riparian water right holders in Reach 1 under "holding contracts." The amounts in the table are approximate based on recent historical deliveries, as provided in Exhibit B of the Settlement. Water for riparian water right holders under "holding contracts" would not be eligible for recapture.
 - 2 Total eligible for recapture is a maximum potential total, and does not account for anticipated losses to seepage or other unanticipated losses.
 - 3 Paragraph 13(c) of the Settlement requires the acquisition of purchased water to overcome seepage losses not anticipated in Exhibit B. These Paragraph 13(c) releases are available for instream flow dedication starting from Friant Dam; however, because these potential releases would only be made to overcome seepage, this water would not be available for instream flow dedication downstream of Reach 5.
5. For purposes of tracking protected instream flows, Reclamation shall monitor river stage and flow conditions at the following locations during all periods when SJRRP flows are likely to be flowing at those locations:

- below Friant Dam (river mile 267);
- at Gravelly Ford (river mile 228);
- below Chowchilla Bifurcation Structure (river mile 216);
- below Sack Dam (river mile 182);
- at the head of Reach 4B1 (river mile 168); and
- above the Merced River confluence (river mile 118).

Monitoring shall be conducted on a daily basis, and Reclamation shall make the information from such monitoring readily available to the public by posting it on a daily basis on a publicly available website whenever the flows at Friant Dam are modified, and daily for a period of three days after any modification, and on a weekly basis under all other circumstances. River stage and flow conditions shall also similarly be monitored at the Vernalis gaging station, which is operated by the U.S. Geological Survey and DWR, with provisional monitoring data reported on the California Data Exchange Center website at cdec.water.ca.gov on a daily basis. Flow conditions shall also similarly be monitored by Reclamation at the Jones Pumping Plant and the Clifton Court Forebay in coordination with DWR, with provisional monitoring data reported on a daily basis on Reclamation's website.

Reclamation shall, within 5 working days of determining that a station is non-working: (1) report the non-working flow monitoring station to the Deputy Director for Water Rights; and (2) submit to the Deputy Director for Water Rights a plan for timely restoration of the monitoring station. All stations shall be calibrated and report flow data in accordance with standards established by the U.S. Geological Survey.

After the SJRRP flows have been fully implemented and monitored for five years from date of this amended right incorporating approval of the SJRRP Petitions, this condition may be modified by the Deputy Director for Water Rights, upon written request by Reclamation showing that any requested modifications to the monitoring locations, procedures, or reporting are reasonable, prudent and provide adequate data for the Physical Monitoring and Management Plan (DPEIS/R, Appendix D.) Unless the Deputy Director for Water Rights objects in writing to the request within 30 days of notification, the request is approved.

6. The SJRRP instream flow dedication is conditioned upon implementation of the following elements of the Physical Monitoring and Management Plan (Management Plan): (a) the Flow Monitoring and Management Component Plan, (b) the Seepage Monitoring and Management Component Plan (including the Seepage Management Plan Attachment), (c) the Channel Capacity Monitoring and Management Component Plan, and (d) the Native Vegetation Monitoring and Management Component Plan. (DPEIS/R, Appendix D.) Reclamation is also required to implement the following monitoring programs from the Management Plan for the SJRRP instream flow dedication: flow monitoring, levee condition monitoring, groundwater level monitoring, aerial and topographic surveys, vegetation surveys, and sediment mobilization monitoring. (Id.) SJRRP flows shall only be released in a manner consistent with the Management Plan.

Although already incorporated in the Management Plan, it is emphasized herein that Reclamation shall establish groundwater elevation thresholds to determine when impacts to agricultural lands or levee stability are imminent. The groundwater elevation thresholds and action thresholds shall be reviewed by Reclamation annually for: (a) at least five years from approval of this amended permit incorporating approval of the SJRRP petitions, and (b) a minimum of two years after implementation of full SJRRP flows, defined as the maximum flow volume and rate as set forth in Exhibit B of the

Settlement, to determine whether any updates or revisions are required based on problems reported from the seepage hotline or identified by the monitoring well network.

Reclamation shall initially publish any revisions or updates to the Management Plan on the SJRRP website for public review and comment and shall also provide this information to the Division. Reclamation shall consider any comments submitted within 20 days of initial publication and shall draft written responses within 45 days of initial publication, which shall include additional changes to the Management Plan or changes to the initially published revisions or updates. Reclamation shall publish comments, responses, and the revised Management Plan on the SJRRP website within 45 days of the initial publication and shall also submit at that time the revised Management Plan, along with the comments and responses, to the Deputy Director for Water Rights for review, modification and approval. Unless the Deputy Director for Water Rights objects in writing within 30 days of the submittal, the revised Management Plan is approved.

7. Reclamation shall implement the Seepage Monitoring and Management Plan in Appendix D of the WY 2010 EA/IS, as updated in Appendix G to the WY 2012 DEA.

As part of implementing the Seepage Monitoring Plan, Reclamation shall publish the then-current well locations, monitoring/buffer groundwater thresholds, and proposed process for development of and updates to action thresholds on the SJRRP website by January 10, 2014 for public review and comment and shall also provide this information to the Division. Reclamation shall consider any comments submitted by January 30, 2014 and shall draft written responses, which may include revisions to the thresholds, by March 1, 2014. Comments, responses, and then-current thresholds shall be published on the SJRRP website by March 1, 2014, and also provided to the Deputy Director for Water Rights for review, modification and approval. Any future revisions to action thresholds shall follow the same process.

Recognizing that many factors contribute to groundwater elevations, Reclamation shall manage Interim Flows to avoid exceeding an action threshold to the extent possible. In addition, and prior to January 10, 2014, Reclamation shall publish on the SJRRP website the location of all new monitoring wells installed in 2013 and its plans for installation for additional monitoring wells in 2014, including proposed well locations and estimated timelines for installation. Plans for installation of new monitoring wells shall include surveying well locations.

8. Reclamation shall issue a notification on the flow monitoring page of the SJRRP website, with a short description of status and decision made, within 5 working days of the following:
 - a. A seepage hotline call is reported.
 - b. A monitoring well crosses a threshold.
 - c. An operational change or constraint arises from the daily coordination call; or
 - d. A flow change is made.
9. Seepage will be monitored for at least five years from implementation of full SJRRP flows, defined as the maximum flow volume and rate as set forth in Exhibit B of the Settlement, subject to discontinuation as provided for in this condition, and Reclamation shall submit an annual report with its electronic report of water diversion and use covering the previous water year describing:
 - (a) the stream reach where any modifications to SJRRP flows were made to address seepage issues, (b) the flow modification, and (c) whether construction measures or other actions have been taken, or will be taken (and the time schedule for implementation) to address the problem. If the fourth and fifth annual reports indicate that no monitoring wells have crossed the identified threshold during the reporting period, and the water year classification was normal or better during this time period, the monitoring program may be discontinued.

If the fourth or fifth annual report indicates that one or more monitoring wells has crossed the threshold during the reporting period, seepage management techniques will be implemented to correct the identified problem and monitoring shall continue until corrective action is completed and two consecutive reports during water years classified as normal or better indicate that no wells have crossed the threshold during the reporting period.

If the water year was dry, very dry or critical, monitoring shall be continued past the fifth year until two consecutive reports during normal or better water years indicate that no monitoring wells have crossed the identified threshold during the reporting period.

Reclamation shall indicate in the appropriate electronic annual report of water diversion and use the discontinuance of seepage monitoring authorized consistent with this condition.

10. SJRRP flows shall not exceed the channel capacities identified in DEIS/R Table 11-1 – Design Capacities of San Joaquin River and Bypasses within the Restoration Area and in the USACE 2003 San Joaquin River Mainstem, California Reconnaissance Report Sacramento District, but are subject to periodic update. (Final PEIS/R, p. 4-216, Table 11-1.) Reclamation shall also operate in accordance with the Seepage Monitoring and Management Plan. In the event of a conflict between these two requirements, the most restrictive channel flow shall prevail.
11. The Channel Capacity Advisory Group established and convened by Reclamation provides independent review of then-existing San Joaquin River estimated channel capacities that are determined and updated by Reclamation. (DPEIS/R, p. 2-24 to 2-25, and p. 11-43) Reclamation shall timely submit to the Deputy Director for Water Rights any revised channel capacity final informational report prepared in accordance with the process described on page 2-25 of the DPEIS/R. Thereafter, the updated channel capacity information may be utilized in lieu of previous channel capacity information.
12. In the event that SJRRP flows create seepage conditions, Reclamation shall reduce or redirect SJRRP flows to the last known flow volume that did not result in seepage conditions until Reclamation determines that increasing flows would not create seepage conditions (i.e., seepage is caused by an activity not related to the SJRRP flows). Recognizing that many factors contribute to groundwater elevations, Reclamation shall manage SJRRP flows to avoid exceeding a seepage action threshold to the extent possible.
13. Reclamation shall coordinate its operations with the Central California Irrigation District (CCID) and the San Luis Canal Company (SLCC). When SJRRP flows are or are anticipated to be flowing into Mendota Pool, Reclamation shall communicate with CCID, as the owner/operator of Mendota Dam, at least once daily via telephone, email, or other written communication. This daily communication shall identify, for the following 24 hours: (1) how much water is expected as inflow into the Mendota Pool for the purposes of the SJRRP flows; (2) how much water is to be exchanged to satisfy the Exchange Contract at Mendota Pool; and (3) how much water is to be released below Mendota Dam for the SJRRP flows. Reclamation shall communicate with SLCC, as the owner/operator of Sack Dam, at least once daily via telephone, email, or other written communication when SJRRP flows are being released from Mendota Dam. This daily communication shall identify, for the following 24 hours: (1) how much water is expected as inflow into Reach 3 below Mendota Pool for the purposes of the SJRRP flows; (2) how much water is to be exchanged to satisfy water delivery contracts at the Arroyo Canal; and (3) how much water is to be released below Sack Dam for the SJRRP flows.

Reclamation shall also notify facility owners annually that flows dedicated for preservation and enhancement of fish and wildlife resources pursuant to Water Code section 1707 are protected under the California Water Code and shall not be diverted or stored unless otherwise authorized by Reclamation, subject to the conditions of Reclamation's water rights.

14. The authorization to release and to dedicate SJRRP flows for instream use at Friant Dam shall not be construed as authorizing any act that results in damage that could result in imminent failure to: (a) private levees located along the San Joaquin River, (b) facilities, including levees and related structures, which are part of the San Joaquin River Flood Control Project, (c) Mendota Dam, (d) bifurcation structure at Chowchilla Bypass, (e) Sand Slough control structure, or (f) headworks of Mariposa Bypass. Reclamation shall be responsible for operating the SJRRP in a way that does not result in such damage.
15. Release and dedication of SJRRP flows for instream use at Friant Dam shall be managed to avoid interference with operations of the Lower San Joaquin River Flood Control Project.
16. Until the features of the SJRRP program are fully implemented, Reclamation shall annually consult with the Central Valley Flood Protection Board, Lower San Joaquin Levee District, DWR, or any other appropriate agency to ensure that the proposed flows will not compromise the flood safety features of the San Joaquin River and Eastside and Mariposa Bypasses. A finding by an agency with regulatory oversight on flood control that the full SJRRP flows will not compromise the flood safety features may substitute for annual consultation. Reclamation shall provide information on the consultation to the Deputy Director for Water Rights with the electronic annual report of water diversion and use, until compliance is achieved and shall document achievement of compliance in the appropriate electronic annual report of water diversion and use.
17. Approval of the SJRRP petitions shall not modify or amend the rights and obligations of the parties to: (a) the San Joaquin River Exchange Contract, Ilr-1144, as amended February 14, 1968, and (b) contracts executed as of the date of this amended permit incorporating approval of the SJRRP petitions, between the United States and various contracting entities providing for adjustment and settlement of certain claimed water rights in and to the use of the San Joaquin River to satisfy obligations of the United States under Schedule 1 and Schedule 2, respectively, of the Contract for Purchase of Miller and Lux Water Rights (Contract Ilr-1145, dated July 27, 1939). Nothing herein changes Reclamation's obligations with respect to the Exchange Contractors or with respect to obligations under Schedule 2 of Contract Ilr-1145.
18. Pumping and conveyance of SJRRP flows under Permits 11885, 11886 and 11887 and License 1986 by or through CVP and SWP facilities: (1) shall be consistent with all applicable provisions of law (including the Agreement of November 24, 1986, between the United States of America and the Department of Water Resources of the State of California for the coordinated operation of the CVP and the SWP as authorized by Congress in section 2(d) of the Act of August 26, 1937 (50 Stat. 850, 100 Stat. 3051)), or any successor agreement, and (2) is limited to pumping and conveyance that is available at the C.W. Jones Pumping Plant, at the Harvey O. Banks Pumping Plant, in the Delta-Mendota Canal or in the California Aqueduct, after satisfying the Secretary's obligation to make CVP water (other than the SJRRP Flows) and water acquired through the transfer agreements available to existing south-of-Delta CVP contractors.
19. Pumping of SJRRP flows at the Jones Pumping Plant and the Banks Pumping Plant is subject to compliance by the operators with the objectives currently required of Reclamation or DWR set forth in Tables 1, 2, and 3 on pages 181 to 187 of State Water Board Revised Decision 1641 (D-1641), or any future State Water Board order or decision implementing Bay-Delta water quality objectives at those plants, including compliance with the various plans required under D-1641 as prerequisites for the use of the Joint Points of Diversion by Reclamation and DWR. Pumping of SJRRP flows at the Jones Pumping Plant and the Banks Pumping Plant is also subject to compliance by the operators with all applicable biological opinions and any court orders applicable to these operations.
20. Reclamation shall include the following information in its electronic annual report of water diversion and use to the State Water Board: documentation for each individual water right of

(a) monthly quantities stored in Millerton Reservoir (for water rights authorizing storage), (b) monthly direct diversion quantities (for water rights authorizing direct diversion), (c) quantities bypassed or released and dedicated for instream use at Friant Dam pursuant to Water Code section 1707, and (d) separate information on quantities of flow dedicated pursuant to Water Code section 1707 diverted at each authorized location downstream, including Clifton Court Forebay and the Jones Pumping Plant.

Reclamation shall also submit documentation of its compliance with the conditions established by the State Water Board for the SJRRP. For those mitigation measures with sunset clauses, Reclamation shall note on its report when it is the final year of reporting on the measure, and need not report on compliance with the mitigation measure in subsequent years.

21. Reclamation shall implement the Mendota Pool Water Quality Plan dated February 1, 2011 (2011 Plan) until such time as the Deputy Director for Water Rights determines that the 2011 Plan is no longer needed (for example, after the Mendota Pool Bypass called for in Paragraph 11(a)(1) of the Settlement is constructed and operational). Reclamation shall submit any changes to the 2011 Plan in writing to the Deputy Director for Water Rights for review, modification and approval. Reclamation shall also submit any recommendation for elimination of the 2011 plan in writing to the Deputy Director for Water Rights for approval. Unless the Deputy Director for Water Rights objects in writing to a requested change or recommended elimination within 30 days of notification, the request is approved.
22. Reclamation shall monitor temperature in Millerton Reservoir as needed for the purpose of determining the availability of cold water for fishery purposes. Consistent with the Settlement and Settlement Act, Reclamation shall coordinate its SJRRP releases of the available cold-water pool made at Friant Dam for instream flow dedication with USFWS, NMFS, DFW and DWR to maximize benefits to fishery resources. Consistent with the Settlement and Settlement Act, Reclamation shall also coordinate the ramping of SJRRP releases made at Friant Dam for instream flow dedication with USFWS, NMFS, DFW and DWR to protect fishery resources.
23. Consistent with the Settlement and Settlement Act, Reclamation shall coordinate any flow modifications with the USFWS and NMFS, as applicable. Recapture of water dedicated for instream flow shall be in compliance with the USFWS and NMFS biological opinions.
24. Reclamation shall implement the Conservation Measures for Biological Resources that May Be Affected by Settlement Actions as described in Table 2-7 (p. 4-135 through p. 4-159) of the Final PEIS/R, in accordance with the schedule found therein, only for those items identified as "project level". Reclamation shall document completion of the mitigation measures within its electronic report of water diversion and use filed with the Division of Water Rights. Reclamation shall inform the Division of Water Rights once specific mitigation measures have been completed, and eliminate those measures from future reporting.
25. Reclamation shall prepare and submit an Annual Work Plan consistent with section 6.2 of the ROD.
26. The State Water Board's authorization for releases and dedication of SJRRP flows at Friant Dam and the conditions specified thereof, including authorized releases for dedication of flows at Friant Dam and levels and timing of flows in reaches of the San Joaquin River and Bypass System, are provided solely for the purpose of implementing the Settlement and Settlement Act. The State Water Board has not imposed any water quality flow standards on the upper mainstem San Joaquin River in the stream reach covered by the SJRRP petitions; any future adoption of such standards would have to be accomplished in compliance with all applicable laws. Nothing in this order determines or predetermines whether or not the Board would find the SJRRP Flows sufficient to satisfy potential future water quality standards or any other instream beneficial use requirement.

27. Nothing in this water right authorizes the use of, or access to, any lands or facilities not owned by Reclamation. Reclamation is solely responsible for obtaining any necessary access agreements.
28. Reclamation shall comply with the Steelhead Monitoring Plan in Appendix B to the Final PEIS/R.
29. Reclamation shall continue to implement the recreation outreach plan developed for the water year 2012 Interim Flows Project.
30. To the extent practicable, given operational constraints and other factors, Reclamation shall provide notice to Paramount of determination of the expected presence of flows in Reach 2B below the Chowchilla Bifurcation Structure in excess of flows needed to satisfy CVP purposes within 24 hours of determining that such flows are: (a) present at Friant Dam, and (b) no longer present at Friant Dam. Flows at Friant Dam are subject to conveyance and other losses prior to entering Reach 2B. For description and location of Reach 2B, see Fig. 1-2 of DPEIS/R; Fig. ES-2 and p. 17 of DPEIS/R Executive Summary.

CVP purposes shall include, but are not limited to, uses (including instream flow dedication pursuant to the Settlement and State Water Board order) authorized by License 1986, Permit 11885, Permit 11886, and Permit 11887 and by any licenses issued pursuant to these Permits, certain contracts known as Holding Contracts and the maintenance of a 5 cubic feet per second flow requirement at Gravelly Ford; and the San Joaquin River Exchange Contract, Ilr-1144, as amended February 14, 1968.

Reclamation shall not object to the diversion of flows from the San Joaquin River for reasonable use at the New Columbia Ranch, located on the east side of Reach 2B of the San Joaquin River and just upstream of the Mendota Pool, to the extent that there are flows present in Reach 2B below the Chowchilla Bifurcation Structure in excess of flows needed to satisfy CVP purposes, provided such reasonable diversion and use are conducted pursuant to and to the extent of any valid water right. This condition is for notification purposes only, and shall not be used as the basis for determining the quantities available for diversion by Paramount. Diversions by others under valid basis of right and conveyance losses may affect water availability.

STATE WATER RESOURCES CONTROL BOARD



*Barbara Evoy, Deputy Director
Division of Water Rights*

Dated: **OCT 21 2008**

- Attachment 1: State Water Board Certification, Findings of Fact and Statement of Overriding Consideration for the SJRRP PEIS/R.
- Attachment 2: DWR Certification, Findings of Fact and Statement of Overriding Considerations for the SJRRP, PEIS/R
- Attachment 3: State Water Board Mitigation Monitoring and Reporting Program.



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

DIVISION OF WATER RIGHTS

RIGHT TO DIVERT AND USE WATER

APPLICATION 23

PERMIT 273

LICENSE 1986

Right Holder: U.S. Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

The State Water Resources Control Board (State Water Board) authorizes the diversion and use of water by the right holder in accordance with the limitations and conditions herein SUBJECT TO PRIOR RIGHTS. The priority of this right dates from **March 27, 1915**. This right is issued in accordance with the State Water Board delegation of authority to the Deputy Director for Water Rights (Resolution 2012-0029) and the Deputy Director for Water Rights redelegation of authority dated July 6, 2012. This right supercedes any previously issued right on **Application 23**.

The Deputy Director for Water Rights finds that: (a) the change will not operate to the injury of any lawful user of water; (b) good cause has been shown for the change; (c) the petition does not constitute the initiation of a new right; and (d) the State Water Resources Control Board (State Water Board) has made the required findings pursuant to the California Environmental Quality Act (CEQA) or the project is exempt from CEQA.

The State Water Board has complied with its independent obligation to consider the effect of the proposed change on public trust resources and to protect those resources where feasible. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419 [189 Cal.Rptr. 346, 658 P.2d 709].)

Right holder is hereby granted a right to divert and use water as follows:

1. Source of water: San Joaquin River

tributary to: **Suisun Bay**

within the Counties of Madera and Fresno

2. Location of point of diversion

By California Coordinate System of 1983 in Zone 3	40-acre subdivision of public land survey or projection thereof	Section	Township	Range	Base and Meridian
Point of Diversion: Friant Dam North 1,824,400 feet and East 6,793,175 feet	NW¼ of SW¼	5	11S	21E	MD

By California Coordinate System of 1983 in Zone 3	40-acre subdivision of public land survey or projection thereof	Section (Projected) *	Township	Range	Base and Meridian
Points of Rediversion*: Mendota Dam	SE¼ of NE¼	19	13S	15E	MD

North 1,745,375 feet and East 6,598,943 feet					
Canal Intakes Off Mendota Dam:					
a. Main Canal – North 1,744,396 feet and East 6,598,937 feet	NE ¼	19	13S	15E	MD
b. Outside Canal – North 1,741,896 feet and East 6,599,689 feet	SE ¼	19	13S	15E	MD
c. Columbia Canal – North 1,746,420 feet and East 6,605,595 feet	NE ¼	20	13S	15E	MD
d. Columbia Canal Co. – Mowry Inlet at Mendota Pool: Zone 4, North 2,171,207 feet and East 6,167,526 feet	SW ¼	21	13S	15E	MD
e. Helm Ditch – North 1,745,022 feet and East 6,598,787 feet	NE ¼	19	13S	15E	MD
f. Firebaugh Water District Canal – North 1,741,821 feet and East 6,599,844 feet	SE ¼	19	13S	15E	MD
Intake to Arroyo Canal: North 1,816,307 feet and East 6,561,446 feet	SW ¼	12	11S	13E	MD
Intake to Sand Slough Control Structure: North 1,862,535 feet and East 6,535,468 feet	NE ¼	31	9S	13E	MD
Along East Side Bypass at Lone Tree Unit, Merced National Wildlife Refuge: North 1,883,703 feet and East 6,523,784 feet	NW ¼	11	9S	12E	MD
Intake to Mariposa Bypass Control Structure, on Eastside Bypass: North 1,895,936 feet and East 6,505,198 feet	SE ¼	30	8S	12E	MD
Along Eastside Bypass at East Bear Creek Unit, San Luis National Wildlife Refuge: North 1,914,452 feet and East 6,480,299 feet	NE ¼	8	8S	11E	MD
Jones Pumping Plant : North 2,114,400 feet and East 6,248,073 feet	SW ¼ of SW ¼	31	1S	4E	MD
Banks Pumping Plant: North 2,115,990 feet and	SW ¼	35	1S	3E	MD

East 6,237,838 feet					
Point of Rediversion - San Luis Dam: North 1,844,598 feet and East 6,394,093 feet	SW ¼ of SE ¼	15	10S	8E	MD

* The points of rediversion are for water previously diverted at Friant Dam that remains under the dominion and control of Reclamation from Friant Dam to the points of rediversion pursuant to Water Code section 1707.

Points of rediversion are shown on Map 1785-202-50, filed with the State Water Board.

3. Purposes of use	4. Place of use	Section (Projected) *	Township	Range	Base and Meridian	Acres
Municipal, Domestic, Irrigation, Incidental Domestic, Stockwatering, Preservation and Enhancement of Fish and Wildlife, Recreational	Gross area of 5,431,000 acres as shown on Maps 214-212-37, 214-208-3331, 1785-202-14 and 1785-202-50.					
Preservation and Enhancement of Fish and Wildlife, Recreational	San Joaquin River and designated bypass system from Friant Dam to the Sacramento-San Joaquin River Delta (Delta) and through the Delta Channels to the Jones and Banks Pumping Plants, as shown on Map 1785-202-50.					

The place of use is shown on maps filed with the State Water Board.

- Acronyms used:
in this water right
- State Water Project – SWP
 - Central Valley Project – CVP
 - U.S. Bureau of Reclamation - Reclamation
 - Department of Water Resources – DWR
 - National Marine Fisheries Service – NMFS
 - San Joaquin River Restoration Program – SJRRP
 - Department of Fish and Wildlife – DFW
 - United States Fish and Wildlife Service – USFWS
 - Final Program Environmental Impact Statement/Report, SJRRP, July 2012 – Final PEIS/R
 - Draft Program Environmental Impact Statement/Report, SJRRP, April 2011 – DPEIS/R

5. The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed **373 cubic feet per second** by direct diversion, to be diverted from about **April 1 to about July 1** of each year. The maximum annual diversion shall not exceed **44,340 acre-feet per annum**.
(0000005)
6. In case of rotation the equivalent of such continuous flow allowance for any thirty day period may be diverted at a greater rate in a shorter time if there be no interference with other vested rights.

7. No right may be claimed under this license either singly or with any other right to appropriate more than 2.5 acre-feet per acre per annum for the irrigation of uncultivated areas of land not devoted to cultivated crops.
8. Upon the request of the Board, Reclamation shall make such measurements and maintain and furnish to the Board such records and information as may be necessary to determine compliance with the terms and conditions of this water right, including the recognition of vested rights and for the further purpose of determining the quantities of water placed to beneficial use under this right, both by direct diversion and storage.

(0100300)
9. Reclamation shall ensure that the water quality objectives for municipal and industrial beneficial uses and agricultural beneficial uses for the western Delta, interior Delta and export area as set forth in Tables 1 and 2, attached, are met on an interim basis until the Board adopts a further decision assigning responsibility for meeting these objectives. The condition, as written in Order WR 2001-05, states that unless it is renewed pursuant to a further order after notice and opportunity for hearing, this condition shall expire no later than one year after the DWR or the Reclamation requests in writing that the State Water Board convene a water right proceeding to determine whether to replace this condition with another condition that meets the objectives in Tables 1 and 2. Any extension hearing shall be for the limited purpose of determining whether additional time is necessary, and shall not include consideration of changes in allocation of responsibility. The State Water Board shall expedite any proceeding it conducts to assign long term responsibility to meet the objectives in Tables 1 and 2, in an effort to keep the proceeding under two years. This condition does not mandate that Reclamation use water under this permit if it uses other sources of water or other means to meet this condition. Order WR 2002-0012 states this condition of Order 2001-05 remains in full force and effect.
10. Reclamation shall ensure that the water quality objectives for Delta outflow and for Sacramento River flow at Rio Vista for fish and wildlife beneficial uses as set forth in Table 3, attached, are met on an interim basis, until the Board adopts a further decision in the Bay-Delta Water Rights Hearing assigning responsibility for meeting these objectives. The condition, as written in Order WR 2001-05, states that unless it is renewed pursuant to a further order after notice and an opportunity for hearing, this condition shall expire no later than one year after the DWR or Reclamation requests in writing that the State Water Board convene a water right proceeding to determine whether to replace this condition with another condition that meets the objectives in Table 3. Any extension hearing shall be for the limited purpose of determining whether additional time is necessary, and shall not include consideration of changes in allocation of responsibility. The State Water Board shall expedite any proceeding it conducts to assign long term responsibility to meet the objectives in Table 3, in an effort to keep the proceeding under two years. This condition does not mandate that Reclamation use water under this permit if it uses other sources of water or other means to meet this condition. Order WR 2002-0012 states this condition of Order 2001-05 remains in full force and effect.
11. Reclamation shall implement the water quality compliance and baseline monitoring plan set forth in Table 5 on an interim basis, including construction, maintenance and operation of all necessary devices, until the Board adopts a further decision in the Bay-Delta Water Rights Hearing assigning responsibility for meeting the requirements in Table 5.
12. Reclamation shall:
 - a. In consultation with the USFWS, DFW, San Joaquin River Group Authority (SJRGA), City and County of San Francisco (CCSF) and CVP/SWP Export Interests, prepare a fishery monitoring plan for the Vernalis Adaptive Management Plan (VAMP) experiment consistent with the San Joaquin River Agreement (SJRA) and with the findings in Decision 1641. The plan shall specify study objectives, sampling locations, methodology, and sampling periods. The monitoring plan shall be submitted to the Executive Director of the State Water Board for approval by May 14, 2000.

- b. Conduct the fishery monitoring studies according to the monitoring plan for the duration of the VAMP/SJRA study period, and submit results to the Executive Director of the State Water Board on an annual basis. A monitoring report summarizing the study methodology and results from each year's experiment shall be submitted to the Executive Director of the State Water Board by December 31 of each year. A final report shall be submitted to the Executive Director of the State Water Board no later than eight months following completion of the VAMP experiment.
13. To ensure compliance with the water quality objectives as set forth in conditions 9 and 10 of this amended license, to identify meaningful changes in any significant water quality parameters potentially related to operation of the SWP or the CVP, and to reveal trends in ecological changes potentially related to project operations, Reclamation shall, independently or in cooperation with other agencies or individuals:
 - a. Perform the Water Quality and Baseline Monitoring program described in Table 5 and in Figure 4.
 - b. Conduct ongoing and future monitoring surveys as recommended by the DFW, the USFWS or the NMFS, and acceptable to the Executive Director of the State Water Board concerning food chain relationships, fisheries impacts, or impacts to brackish tidal marshes, as they are affected by operations of the SWP or the CVP in the Delta and Suisun Marsh.
 - c. Reclamation shall make available to the State Water Board and other interested parties the results of the above monitoring as soon as practicable. Timely posting of this information on the Internet will satisfy this requirement. Reclamation shall submit to the Executive Director of the State Water Board, by December 1 of each year, annual reports summarizing the previous calendar year's findings and detailing future study plans.
 - d. If Reclamation anticipates violations of the water quality objectives or if such violations have occurred, Reclamation shall provide immediate written notification to the Executive Director of the State Water Board.
 - e. Reclamation shall evaluate the Water Quality Compliance and Baseline Monitoring once every three years to ensure that the goals of the monitoring program are attained. Reclamation shall report to the Executive Director of the State Water Board the conclusions based upon this evaluation. Reclamation may propose appropriate modifications of the program for concurrence of the Executive Director of the State Water Board.
14. Upon request to and approval of the Executive Director of the State Water Board, variations in flow for experimental purposes for protection and enhancement of fish and wildlife may be allowed; provided, that such variations in flow do not cause violations of municipal, industrial and agricultural objectives in Tables 1 and 2.
15. For the protection of Suisun Marsh, Reclamation shall report to the State Water Board by September 30 of each year on progress toward implementation of mitigation facilities and on water quality conditions in the Suisun Marsh during the previous salinity control season.
16. This water right is conditioned upon implementation of the water quality objectives for agricultural beneficial uses in the southern Delta, as specified in Table 2, attached, at the following locations in the southern Delta:
 - a. San Joaquin River at Airport Way Bridge, Vernalis (Interagency Station No. C-10);
 - b. San Joaquin River at Brandt Bridge (Interagency Station No. C-6);
 - c. Old River near Middle River (Interagency Station No. C-8); and
 - d. Old River at Tracy Road Bridge (Interagency Station No. P-12).

Conditions 20.b, 20.c and 20.d are referred to as the southern delta salinity objective. This condition does not mandate that Reclamation use water under this amended permit to meet this condition if it uses other sources of water or other means to meet this condition.

Reclamation has latitude in its method for implementing the water quality objectives at Stations C-6, C-8, and P-12, above; however, a barrier program in the southern Delta may help to ensure that the objectives are met at these locations. If Reclamation exceeds the objectives at stations C-6, C-8, or P-12, Reclamation shall prepare a report for the Executive Director. The Executive Director will evaluate the report and make a recommendation to the State Water Board as to whether enforcement action is appropriate or the noncompliance is the result of actions beyond the control of Reclamation.

Reclamation shall report any expected noncompliance as soon as possible. The report of actions taken shall be submitted within three months following the period in which the requirements are not met.

17. Reclamation shall, at all times, meet the Vernalis water quality objectives for agricultural beneficial uses at Vernalis. Reclamation may meet these objectives through flows or other measures. Reclamation shall develop a program under which it will meet these objectives consistently. Reclamation shall conduct modeling and planning studies to evaluate the effectiveness of its program to meet the Vernalis water quality objectives. If, by December 29, 2004, Reclamation has not developed a program under which it will consistently achieve the Vernalis objectives, Reclamation shall report to the Executive Director of the State Water Board all actions it has taken in attempting to meet the objectives, including drainage and management alternatives. The Executive Director of the State Water Board will evaluate the report and will decide whether further action should be taken by the State Water Board to ensure that the objectives are met.
18. The State Water Board reserves continuing jurisdiction over this permit for the purpose of formulating or revising terms and conditions relative to flows to be maintained in the Delta for the protection of fish and wildlife.
(0000600)
19. The State Water Board reserves continuing jurisdiction over this water right for the purpose of formulating or revising terms and conditions relative to salinity control in the Sacramento-San Joaquin Delta.
(0000600)
20. The Board reserves continuing jurisdiction over this permit for the purpose of coordinating terms and conditions of the permit with terms and conditions which have been or which may be included in permits issued pursuant to applications of the United States in furtherance of the CVP and other applications of the State of California in furtherance of the SWP. At such time as DWR and Reclamation have entered into a coordinated operation agreement, the Board will review said agreement for the purpose of formulating and imposing such coordinated terms and conditions as may be appropriate. The Board, on its own motion or on the motion of any interested party, after hearing, may formulate and impose such coordinated terms and conditions as may be appropriate pending the execution of such agreement.
(0000600)
21. Direct diversion of flows originating downstream of Friant Dam is not authorized. Only water available at Friant Dam may be dedicated for preservation of fish and wildlife pursuant to Water Code section 1707 and subsequently utilized downstream of the dam at the authorized locations.
22. Any San Joaquin River Settlement Restoration Flows or Interim Flows that are recaptured and stored or routed through San Luis Reservoir shall be used consistent with the Settlement and Settlement Act. The water need not be delivered back to the Friant Division Contractors, but may be made available to others through transfers, exchanges and sales. Reclamation shall document that it has taken all practicable measures to provide contract water to the Friant Division Contractors, while complying with all other conditions of this water right.

One of these practicable measures shall include implementation of the February 2011 Draft Plan for the Recirculation, Recapture, Reuse, Exchange or Transfer of Interim and Restoration Flows, unless superseded by a final recirculation plan, which is anticipated by October 31, 2013. The Recirculation Plan may be revised and amended from time to time as the physical conditions in the river change due to implementation of the SJRRP. To the extent the Recirculation Plan or any revision thereto, includes components that are subject to state approval, such as additional exchanges or transfers, those components are subject to review, modification and approval by the State Water Board. The plan shall be timely implemented.

23. The SJRRP flows dedicated for the purpose of preservation and enhancement of fish and wildlife resources are in addition to that quantity of releases otherwise required to maintain the 5 cubic feet per second (cfs) requirement at Gravelly Ford and that would be sufficient to provide necessary flow in the river reach from Friant Dam to Gravelly Ford pursuant to the obligations of the Holding Contracts executed by Reclamation.
24. Reclamation shall dedicate water to instream beneficial uses to the extent possible in compliance with this Order and the terms and conditions of the Settlement and Settlement Act. Release volumes shall be in accordance with the water-year type allocation made using either the Restoration Flow schedules included in Exhibit B of the Settlement, or a more continuous hydrograph as listed below. (DPEIS/R, Figures 2-5 and 2-6) Release rates shall be in accordance with the schedule for release volumes of Interim and Restoration flows, also as listed below, subject to the additional releases called for in Paragraph 13 and Exhibit B of the Settlement, as described below (DPEIS/R, Table 2-4).

Figure 2-6 from DPEIS/R Continuous Annual Restoration Flow in Thousand Acre-feet (TAF)			
Forecasted Water Year	Annual Flow Allocation (TAF) ¹	Continuous-Line Annual Flow Allocation (TAF)	Restoration Year Type
Inflow below Friant Dam (TAF)			
Less than 400	116.7	116.9	Critical-Low
Greater than 400 to 670	187.5	187.8	Critical-High
Greater than 670 to 930	300.8	272.3 to 330.3	Dry
Greater than 930 to 1,450	364.6	Greater than 330.3 to 400.3	Normal-Dry
Greater than 1,450 to 2,500	473	Greater than 400.3 to 574.4	Normal-Wet
Greater than 2,500	672.3	673.5	Wet

¹Friant Dam releases includes water for riparian water right holders in Reach 1 under "holding contracts", and instream flow dedication water.

Figure 2-5 from DPEIS/R

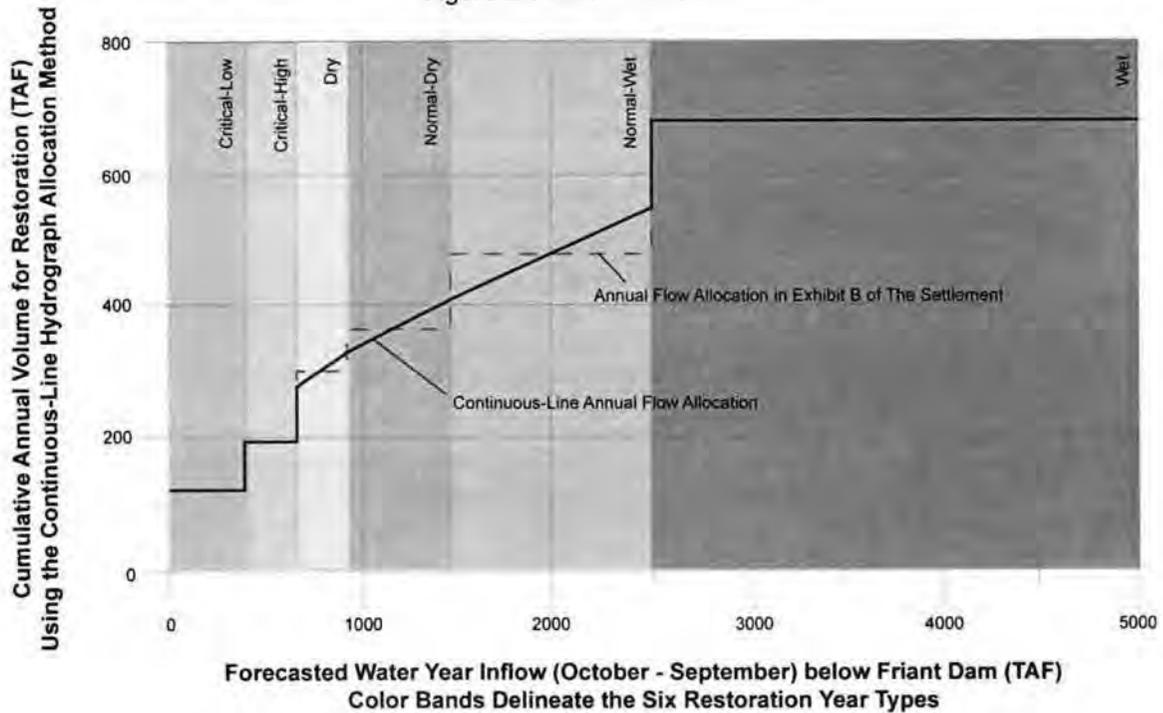


Table 2-4 from Draft PEIS/R.
Estimated Maximum Water Available for Instream Flow Dedication
Under Action Alternatives

Begin Date	End Date	Friant Dam Releases According to Settlement		Reach 1 Holding Contract Diversions Estimated as in Exhibit B1	Friant Dam Releases Eligible for Recapture ¹	
		(cfs)	(TAF)		(cfs)	(TAF)
10/1	10/31	350	22	160	190	12
11/1	11/10	700	14	130	570	11
11/11	12/31	350	35	120	230	23
1/1	2/28	350	41	100	250	29
3/1	3/15	500	14	130	370	10
3/16	3/31	1,500	48	130	1,370	43
4/1	4/15	2,500	74	150	2,350	70
4/16	4/30	4,000	119	150	3,850	115
5/1	6/30	2,000	242	190	1,810	219
7/1	8/31	350	43	230	120	15
9/1	9/30	350	21	210	140	8
Total flows released (TAF)		673		Total available for instream flow dedication² (TAF)		556
Potential buffer flows (TAF)		67		Potential buffer flows (TAF)		67
Potential additional releases pursuant to Paragraph 13(c)		100		Potential additional releases pursuant to Paragraph 13(c), minus seepage ³		0
Maximum total volume released (TAF)		840		Maximum total volume available for instream flow dedication (TAF)		623

Notes:

- 1 Under existing conditions, Friant Dam releases include water for riparian water right holders in Reach 1 under "holding contracts." The amounts in the table are approximate based on recent historical deliveries, as provided in Exhibit B of the Settlement. Water for riparian water right holders under "holding contracts" would not be eligible for recapture.
 - 2 Total eligible for recapture is a maximum potential total, and does not account for anticipated losses to seepage or other unanticipated losses.
 - 3 Paragraph 13(c) of the Settlement requires the acquisition of purchased water to overcome seepage losses not anticipated in Exhibit B. These Paragraph 13(c) releases are available for instream flow dedication starting from Friant Dam; however, because these potential releases would only be made to overcome seepage, this water would not be available for instream flow dedication downstream of Reach 5.
25. For purposes of tracking protected instream flows, Reclamation shall monitor river stage and flow conditions at the following locations during all periods when SJRRP flows are likely to be flowing at those locations:
- below Friant Dam (river mile 267);
 - at Gravelly Ford (river mile 228);
 - below Chowchilla Bifurcation Structure (river mile 216);
 - below Sack Dam (river mile 182);
 - at the head of Reach 4B1 (river mile 168); and
 - above the Merced River confluence (river mile 118).

Monitoring shall be conducted on a daily basis, and Reclamation shall make the information from such monitoring readily available to the public by posting it on a daily basis on a publicly available website whenever the flows at Friant Dam are modified, and daily for a period of three days after any modification, and on a weekly basis under all other circumstances. River stage and flow conditions shall also similarly be monitored at the Vernalis gaging station, which is operated by the U.S. Geological Survey and DWR, with provisional monitoring data reported on the California Data Exchange Center website at cdec.water.ca.gov on a daily basis. Flow conditions shall also similarly be monitored by Reclamation at the Jones Pumping Plant and the Clifton Court Forebay in coordination with DWR, with provisional monitoring data reported on a daily basis on Reclamation's website.

Reclamation shall, within 5 working days of determining that a station is non-working: (1) report the non-working flow monitoring station to the Deputy Director for Water Rights; and (2) submit to the Deputy Director for Water Rights a plan for timely restoration of the monitoring station. All stations shall be calibrated and report flow data in accordance with standards established by the U.S. Geological Survey.

After the SJRRP flows have been fully implemented and monitored for five years from date of this amended right incorporating approval of the SJRRP Petitions, this condition may be modified by the Deputy Director for Water Rights, upon written request by Reclamation showing that any requested modifications to the monitoring locations, procedures, or reporting are reasonable, prudent and provide adequate data for the Physical Monitoring and Management Plan (DPEIS/R, Appendix D.) Unless the

Deputy Director for Water Rights objects in writing to the request within 30 days of notification, the request is approved.

26. The SJRRP instream flow dedication is conditioned upon implementation of the following elements of the Physical Monitoring and Management Plan (Management Plan): (a) the Flow Monitoring and Management Component Plan, (b) the Seepage Monitoring and Management Component Plan (including the Seepage Management Plan Attachment), (c) the Channel Capacity Monitoring and Management Component Plan, and (d) the Native Vegetation Monitoring and Management Component Plan. (DPEIS/R, Appendix D.) Reclamation is also required to implement the following monitoring programs from the Management Plan for the SJRRP instream flow dedication: flow monitoring, levee condition monitoring, groundwater level monitoring, aerial and topographic surveys, vegetation surveys, and sediment mobilization monitoring. (Id.) SJRRP flows shall only be released in a manner consistent with the Management Plan.

Although already incorporated in the Management Plan, it is emphasized herein that Reclamation shall establish groundwater elevation thresholds to determine when impacts to agricultural lands or levee stability are imminent. The groundwater elevation thresholds and action thresholds shall be reviewed by Reclamation annually for: (a) at least five years from approval of this amended permit incorporating approval of the SJRRP petitions, and (b) a minimum of two years after implementation of full SJRRP flows, defined as the maximum flow volume and rate as set forth in Exhibit B of the Settlement, to determine whether any updates or revisions are required based on problems reported from the seepage hotline or identified by the monitoring well network.

Reclamation shall initially publish any revisions or updates to the Management Plan on the SJRRP website for public review and comment and shall also provide this information to the Division. Reclamation shall consider any comments submitted within 20 days of initial publication and shall draft written responses within 45 days of initial publication, which shall include additional changes to the Management Plan or changes to the initially published revisions or updates. Reclamation shall publish comments, responses, and the revised Management Plan on the SJRRP website within 45 days of the initial publication and shall also submit at that time the revised Management Plan, along with the comments and responses, to the Deputy Director for Water Rights for review, modification and approval. Unless the Deputy Director for Water Rights objects in writing within 30 days of the submittal, the revised Management Plan is approved.

27. Reclamation shall implement the Seepage Monitoring and Management Plan in Appendix D of the WY 2010 EA/IS, as updated in Appendix G to the WY 2012 DEA.

As part of implementing the Seepage Monitoring Plan, Reclamation shall publish the then-current well locations, monitoring/buffer groundwater thresholds, and proposed process for development of and updates to action thresholds on the SJRRP website by January 10, 2014 for public review and comment and shall also provide this information to the Division. Reclamation shall consider any comments submitted by January 30, 2014 and shall draft written responses, which may include revisions to the thresholds, by March 1, 2014. Comments, responses, and then-current thresholds shall be published on the SJRRP website by March 1, 2014, and also provided to the Deputy Director for Water Rights for review, modification and approval. Any future revisions to action thresholds shall follow the same process.

Recognizing that many factors contribute to groundwater elevations, Reclamation shall manage Interim Flows to avoid exceeding an action threshold to the extent possible. In addition, and prior to January 10, 2014, Reclamation shall publish on the SJRRP website the location of all new monitoring wells installed in 2013 and its plans for installation for additional monitoring wells in 2014, including proposed well locations and estimated timelines for installation. Plans for installation of new monitoring wells shall include surveying well locations.

28. Reclamation shall issue a notification on the flow monitoring page of the SJRRP website, with a short description of status and decision made, within 5 working days of the following:

- a. A seepage hotline call is reported.
 - b. A monitoring well crosses a threshold.
 - c. An operational change or constraint arises from the daily coordination call; or
 - d. A flow change is made.
29. Seepage will be monitored for at least five years from implementation of full SJRRP flows, defined as the maximum flow volume and rate as set forth in Exhibit B of the Settlement, subject to discontinuation as provided for in this condition, and Reclamation shall submit an annual report with its electronic report of water diversion and use covering the previous water year describing: (a) the stream reach where any modifications to SJRRP flows were made to address seepage issues, (b) the flow modification, and (c) whether construction measures or other actions have been taken, or will be taken (and the time schedule for implementation) to address the problem. If the fourth and fifth annual reports indicate that no monitoring wells have crossed the identified threshold during the reporting period, and the water year classification was normal or better during this time period, the monitoring program may be discontinued.
- If the fourth or fifth annual report indicates that one or more monitoring wells has crossed the threshold during the reporting period, seepage management techniques will be implemented to correct the identified problem and monitoring shall continue until corrective action is completed and two consecutive reports during water years classified as normal or better indicate that no wells have crossed the threshold during the reporting period.
- If the water year was dry, very dry or critical, monitoring shall be continued past the fifth year until two consecutive reports during normal or better water years indicate that no monitoring wells have crossed the identified threshold during the reporting period.
- Reclamation shall indicate in the appropriate electronic annual report of water diversion and use the discontinuance of seepage monitoring authorized consistent with this condition.
30. SJRRP flows shall not exceed the channel capacities identified in DEIS/R Table 11-1 – Design Capacities of San Joaquin River and Bypasses within the Restoration Area and in the USACE 2003 San Joaquin River Mainstem, California Reconnaissance Report Sacramento District, but are subject to periodic update. (Final PEIS/R, p. 4-216, Table 11-1.) Reclamation shall also operate in accordance with the Seepage Monitoring and Management Plan. In the event of a conflict between these two requirements, the most restrictive channel flow shall prevail.
31. The Channel Capacity Advisory Group established and convened by Reclamation provides independent review of then-existing San Joaquin River estimated channel capacities that are determined and updated by Reclamation. (DPEIS/R, p. 2-24 to 2-25, and p. 11-43) Reclamation shall timely submit to the Deputy Director for Water Rights any revised channel capacity final informational report prepared in accordance with the process described on page 2-25 of the DPEIS/R. Thereafter, the updated channel capacity information may be utilized in lieu of previous channel capacity information.
32. In the event that SJRRP flows create seepage conditions, Reclamation shall reduce or redirect SJRRP flows to the last known flow volume that did not result in seepage conditions until Reclamation determines that increasing flows would not create seepage conditions (i.e., seepage is caused by an activity not related to the SJRRP flows). Recognizing that many factors contribute to groundwater elevations, Reclamation shall manage SJRRP flows to avoid exceeding a seepage action threshold to the extent possible.
33. Reclamation shall coordinate its operations with the Central California Irrigation District (CCID) and the San Luis Canal Company (SLCC). When SJRRP flows are or are anticipated to be flowing into Mendota Pool, Reclamation shall communicate with CCID, as the owner/operator of Mendota Dam, at

least once daily via telephone, email, or other written communication. This daily communication shall identify, for the following 24 hours: (1) how much water is expected as inflow into the Mendota Pool for the purposes of the SJRRP flows; (2) how much water is to be exchanged to satisfy the Exchange Contract at Mendota Pool; and (3) how much water is to be released below Mendota Dam for the SJRRP flows. Reclamation shall communicate with SLCC, as the owner/operator of Sack Dam, at least once daily via telephone, email, or other written communication when SJRRP flows are being released from Mendota Dam. This daily communication shall identify, for the following 24 hours: (1) how much water is expected as inflow into Reach 3 below Mendota Pool for the purposes of the SJRRP flows; (2) how much water is to be exchanged to satisfy water delivery contracts at the Arroyo Canal; and (3) how much water is to be released below Sack Dam for the SJRRP flows.

Reclamation shall also notify facility owners annually that flows dedicated for preservation and enhancement of fish and wildlife resources pursuant to Water Code section 1707 are protected under the California Water Code and shall not be diverted or stored unless otherwise authorized by Reclamation, subject to the conditions of Reclamation's water rights.

34. The authorization to release and to dedicate SJRRP flows for instream use at Friant Dam shall not be construed as authorizing any act that results in damage that could result in imminent failure to:
(a) private levees located along the San Joaquin River, (b) facilities, including levees and related structures, which are part of the San Joaquin River Flood Control Project, (c) Mendota Dam, (d) bifurcation structure at Chowchilla Bypass, (e) Sand Slough control structure, or (f) headworks of Mariposa Bypass. Reclamation shall be responsible for operating the SJRRP in a way that does not result in such damage.
35. Release and dedication of SJRRP flows for instream use at Friant Dam shall be managed to avoid interference with operations of the Lower San Joaquin River Flood Control Project.
36. Until the features of the SJRRP program are fully implemented, Reclamation shall annually consult with the Central Valley Flood Protection Board, Lower San Joaquin Levee District, DWR, or any other appropriate agency to ensure that the proposed flows will not compromise the flood safety features of the San Joaquin River and Eastside and Mariposa Bypasses. A finding by an agency with regulatory oversight on flood control that the full SJRRP flows will not compromise the flood safety features may substitute for annual consultation. Reclamation shall provide information on the consultation to the Deputy Director for Water Rights with the electronic annual report of water diversion and use, until compliance is achieved and shall document achievement of compliance in the appropriate electronic annual report of water diversion and use.
41. Approval of the SJRRP petitions shall not modify or amend the rights and obligations of the parties to:
(a) the San Joaquin River Exchange Contract, Ilr-1144, as amended February 14, 1968, and
(b) contracts executed as of the date of this amended permit incorporating approval of the SJRRP petitions, between the United States and various contracting entities providing for adjustment and settlement of certain claimed water rights in and to the use of the San Joaquin River to satisfy obligations of the United States under Schedule 1 and Schedule 2, respectively, of the Contract for Purchase of Miller and Lux Water Rights (Contract Ilr-1145, dated July 27, 1939). Nothing herein changes Reclamation's obligations with respect to the Exchange Contractors or with respect to obligations under Schedule 2 of Contract Ilr-1145.
37. Pumping and conveyance of SJRRP flows under Permits 11885, 11886 and 11887 and License 1986 by or through CVP and SWP facilities: (1) shall be consistent with all applicable provisions of law (including the Agreement of November 24, 1986, between the United States of America and the Department of Water Resources of the State of California for the coordinated operation of the CVP and the SWP as authorized by Congress in section 2(d) of the Act of August 26, 1937 (50 Stat. 850, 100 Stat. 3051)), or any successor agreement, and (2) is limited to pumping and conveyance that is available at the C.W. Jones Pumping Plant, at the Harvey O. Banks Pumping Plant, in the Delta-Mendota Canal or in the California Aqueduct, after satisfying the Secretary's obligation to make CVP water (other than the

SJRRP Flows) and water acquired through the transfer agreements available to existing south-of-Delta CVP contractors.

38. Pumping of SJRRP flows at the Jones Pumping Plant and the Banks Pumping Plant is subject to compliance by the operators with the objectives currently required of Reclamation or DWR set forth in Tables 1, 2, and 3 on pages 181 to 187 of State Water Board Revised Decision 1641 (D-1641), or any future State Water Board order or decision implementing Bay-Delta water quality objectives at those plants, including compliance with the various plans required under D-1641 as prerequisites for the use of the Joint Points of Diversion by Reclamation and DWR. Pumping of SJRRP flows at the Jones Pumping Plant and the Banks Pumping Plant is also subject to compliance by the operators with all applicable biological opinions and any court orders applicable to these operations.
39. Reclamation shall include the following information in its electronic annual report of water diversion and use to the State Water Board: documentation for each individual water right of (a) monthly quantities stored in Millerton Reservoir (for water rights authorizing storage), (b) monthly direct diversion quantities (for water rights authorizing direct diversion), (c) quantities bypassed or released and dedicated for instream use at Friant Dam pursuant to Water Code section 1707, and (d) separate information on quantities of flow dedicated pursuant to Water Code section 1707 diverted at each authorized location downstream, including Clifton Court Forebay and the Jones Pumping Plant.

Reclamation shall also submit documentation of its compliance with the conditions established by the State Water Board for the SJRRP. For those mitigation measures with sunset clauses, Reclamation shall note on its report when it is the final year of reporting on the measure, and need not report on compliance with the mitigation measure in subsequent years.
40. Reclamation shall implement the Mendota Pool Water Quality Plan dated February 1, 2011 (2011 Plan) until such time as the Deputy Director for Water Rights determines that the 2011 Plan is no longer needed (for example, after the Mendota Pool Bypass called for in Paragraph 11(a)(1) of the Settlement is constructed and operational). Reclamation shall submit any changes to the 2011 Plan in writing to the Deputy Director for Water Rights for review, modification and approval. Reclamation shall also submit any recommendation for elimination of the 2011 plan in writing to the Deputy Director for Water Rights for approval. Unless the Deputy Director for Water Rights objects in writing to a requested change or recommended elimination within 30 days of notification, the request is approved.
41. Reclamation shall monitor temperature in Millerton Reservoir as needed for the purpose of determining the availability of cold water for fishery purposes. Consistent with the Settlement and Settlement Act, Reclamation shall coordinate its SJRRP releases of the available cold-water pool made at Friant Dam for instream flow dedication with USFWS, NMFS, DFW and DWR to maximize benefits to fishery resources. Consistent with the Settlement and Settlement Act, Reclamation shall also coordinate the ramping of SJRRP releases made at Friant Dam for instream flow dedication with USFWS, NMFS, DFW and DWR to protect fishery resources.
42. Consistent with the Settlement and Settlement Act, Reclamation shall coordinate any flow modifications with the USFWS and NMFS, as applicable. Recapture of water dedicated for instream flow shall be in compliance with the USFWS and NMFS biological opinions.
43. Reclamation shall implement the Conservation Measures for Biological Resources that May Be Affected by Settlement Actions as described in Table 2-7 (p. 4-135 through p. 4-159) of the Final PEIS/R, in accordance with the schedule found therein, only for those items identified as "project level". Reclamation shall document completion of the mitigation measures within its electronic report of water diversion and use filed with the Division of Water Rights. Reclamation shall inform the Division of Water Rights once specific mitigation measures have been completed, and eliminate those measures from future reporting.
44. Reclamation shall prepare and submit an Annual Work Plan consistent with section 6.2 of the ROD.

45. The State Water Board's authorization for releases and dedication of SJRRP flows at Friant Dam and the conditions specified thereof, including authorized releases for dedication of flows at Friant Dam and levels and timing of flows in reaches of the San Joaquin River and Bypass System, are provided solely for the purpose of implementing the Settlement and Settlement Act. The State Water Board has not imposed any water quality flow standards on the upper mainstem San Joaquin River in the stream reach covered by the SJRRP petitions; any future adoption of such standards would have to be accomplished in compliance with all applicable laws. Nothing in this order determines or predetermines whether or not the Board would find the SJRRP Flows sufficient to satisfy potential future water quality standards or any other instream beneficial use requirement.
46. Nothing in this water right authorizes the use of, or access to, any lands or facilities not owned by Reclamation. Reclamation is solely responsible for obtaining any necessary access agreements.
47. Reclamation shall comply with the Steelhead Monitoring Plan in Appendix B to the Final PEIS/R.
48. Reclamation shall continue to implement the recreation outreach plan developed for the water year 2012 Interim Flows Project.
49. To the extent practicable, given operational constraints and other factors, Reclamation shall provide notice to Paramount of determination of the expected presence of flows in Reach 2B below the Chowchilla Bifurcation Structure in excess of flows needed to satisfy CVP purposes within 24 hours of determining that such flows are: (a) present at Friant Dam, and (b) no longer present at Friant Dam. Flows at Friant Dam are subject to conveyance and other losses prior to entering Reach 2B. For description and location of Reach 2B, see Fig. 1-2 of DPEIS/R; Fig. ES-2 and p. 17 of DPEIS/R Executive Summary.

CVP purposes shall include, but are not limited to, uses (including instream flow dedication pursuant to the Settlement and State Water Board order) authorized by License 1986, Permit 11885, Permit 11886, and Permit 11887 and by any licenses issued pursuant to these Permits, certain contracts known as Holding Contracts and the maintenance of a 5 cubic feet per second flow requirement at Gravelly Ford; and the San Joaquin River Exchange Contract, Ilr-1144, as amended February 14, 1968.

Reclamation shall not object to the diversion of flows from the San Joaquin River for reasonable use at the New Columbia Ranch, located on the east side of Reach 2B of the San Joaquin River and just upstream of the Mendota Pool, to the extent that there are flows present in Reach 2B below the Chowchilla Bifurcation Structure in excess of flows needed to satisfy CVP purposes, provided such reasonable diversion and use are conducted pursuant to and to the extent of any valid water right. This condition is for notification purposes only, and shall not be used as the basis for determining the quantities available for diversion by Paramount. Diversions by others under valid basis of right and conveyance losses may affect water availability.

THIS RIGHT IS ALSO SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

- A. Right holder is on notice that: (1) failure to timely commence or complete construction work or beneficial use of water with due diligence, (2) cessation or partial cessation of beneficial use of water, or (3) failure to observe any of the terms or conditions of this right, may be cause for the State Water Board to consider revocation (including partial revocation) of this right. (Cal. Code Regs., tit. 23, § 850.)
(0000016)
- B. Right holder is on notice that when the State Water Board determines that any person is violating, or threatening to violate, any term or condition of a right, the State Water Board may issue an order to that person to cease and desist from that violation. (Wat. Code, § 1831.)
(0000017)
- C. Right holder is not authorized to make any modifications to the location of diversion facilities, place of use or purposes of use, or make other changes to the project that do not conform with the terms and conditions of this right, prior to submitting a change petition and obtaining approval of the State Water Board.
(0000018)
- D. Once the time to develop beneficial use of water ends under this permit, right holder is not authorized to increase diversions beyond the maximum annual amount diverted or used during the authorized development schedule prior to submitting a time extension petition and obtaining approval of the State Water Board.
(0000019)
- E. Only the amount of water applied to beneficial use during the authorized diversion season, as determined by the State Water Board, shall be considered when issuing a license. (Wat. Code, § 1610.)
(0000006)
- F. Right holder shall maintain records of the amount of water diverted and used under this right to enable the State Water Board to determine the amount of water that has been applied to beneficial use.
(0000015)
- G. Right holder shall promptly submit any reports, data, or other information that may reasonably be required by the State Water Board, including but not limited to documentation of water diversion and use under this right and documentation of compliance with the terms and conditions of this right.
(0000010)
- H. No water shall be diverted under this right unless right holder is operating in accordance with a compliance plan, satisfactory to the Deputy Director for Water Rights. Said compliance plan shall specify how right holder will comply with the terms and conditions of this right. Right holder shall comply with all reporting requirements in accordance with the schedule contained in the compliance plan.
(0000070)
- I. Right holder shall grant, or secure authorization through right holder's right of access to property owned by another party, the staff of the State Water Board, and any other authorized representatives of the State Water Board the following:
 - 1. Entry upon property where water is being diverted, stored or used under a right issued by the State Water Board or where monitoring, samples and/or records must be collected under the conditions of this right;
 - 2. Access to copy any records at reasonable times that are kept under the terms and conditions of a right or other order issued by State Water Board;

3. Access to inspect at reasonable times any project covered by a right issued by the State Water Board, equipment (including monitoring and control equipment), practices, or operations regulated by or required under this right; and,
4. Access to photograph, sample, measure, and monitor at reasonable times for the purpose of ensuring compliance with a right or other order issued by State Water Board, or as otherwise authorized by the Water Code.

(0000011)

- J. This right shall not be construed as conferring right of access to any lands or facilities not owned by right holder.

(0000022)

- K. All rights are issued subject to available flows. Inasmuch as the source contains treated wastewater, imported water from another stream system, or return flow from other projects, there is no guarantee that such supply will continue.

(0000025)

- L. This right does not authorize diversion of water dedicated by other right holders under a senior right for purposes of preserving or enhancing wetlands, habitat, fish and wildlife resources, or recreation in, or on, the water. (Wat. Code, § 1707.) The Division of Water Rights maintains information about these dedications. It is right holders' responsibility to be aware of any dedications that may preclude diversion under this right.

(0000212)

- M. No water shall be diverted or used under this right, and no construction related to such diversion shall commence, unless right holder has obtained and is in compliance with all necessary permits or other approvals required by other agencies. If an amended right is issued, no new facilities shall be utilized, nor shall the amount of water diverted or used increase beyond the maximum amount diverted or used during the previously authorized development schedule, unless right holder has obtained and is in compliance with all necessary requirements, including but not limited to the permits and approvals listed in this term.

Within 90 days of the issuance of this right or any subsequent amendment, right holder shall prepare and submit to the Division of Water Rights a list of, or provide information that shows proof of attempts to solicit information regarding the need for, permits or approvals that may be required for the project. At a minimum, right holder shall provide a list or other information pertaining to whether any of the following permits or approvals are required: (1) lake or streambed alteration agreement with the Department of Fish and Wildlife (Fish & G. Code, § 1600 et seq.); (2) Department of Water Resources, Division of Safety of Dams approval (Wat. Code, § 6002); (3) Regional Water Quality Control Board Waste Discharge Requirements (Wat. Code, § 13260 et seq.); (4) U.S. Army Corps of Engineers Clean Water Act section 404 permit (33 U.S.C. § 1344); and (5) local grading permits.

Right holder shall, within 30 days of issuance of any permits, approvals or waivers, transmit copies to the Division of Water Rights.

(0000203)

- N. Urban water suppliers must comply with the Urban Water Management Planning Act (Wat. Code, § 10610 et seq.). An "urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.

Agricultural water users and suppliers must comply with the Agricultural Water Management Planning Act (Act) (Water Code, § 10800 et seq.). Agricultural water users applying for a permit from the State Water Board are required to develop and implement water conservation plans in accordance with the Act. An "agricultural water supplier" means a supplier, either publicly or privately owned, supplying more

than 50,000 acre-feet of water annually for agricultural purposes. An agricultural water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers.

(000029D)

- O. Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this right, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

The continuing authority of the State Water Board may be exercised by imposing specific requirements over and above those contained in this right with a view to eliminating waste of water and to meeting the reasonable water requirements of right holder without unreasonable draft on the source. Right holder may be required to implement a water conservation plan, features of which may include but not necessarily be limited to (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this right and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

The continuing authority of the State Water Board also may be exercised by imposing further limitations on the diversion and use of water by right holder in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution, article X, section 2; is consistent with the public interest; and is necessary to preserve or restore the uses protected by the public trust.

(000012)

- P. The quantity of water diverted under this right is subject to modification by the State Water Board if, after notice to right holder and an opportunity for hearing, the State Water Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the State Water Board finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.

(000013)

- Q. This right does not authorize any act which results in the taking of a candidate, threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under the federal Endangered Species Act (16 U.S.C. § 1531 et seq.). If a "take" will result from any act authorized under this right, right holder shall obtain any required authorization for the take consistent with the federal Endangered Species Act prior to construction or operation of the project. Right holder shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this right.

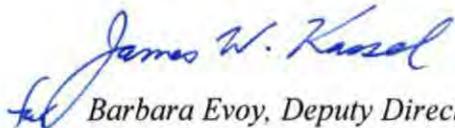
(000014)

This right is issued and right holder takes it subject to the following provisions of the Water Code:

Section 1390. A permit shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code), but no longer .

Section 1392. Every permittee, if he accepts a permit, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any permit granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any permittee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

STATE WATER RESOURCES CONTROL BOARD



Barbara Evoy, Deputy Director
Division of Water Rights

Dated: **OCT 21 2013**

- Attachments:
- Table 1 – Water Quality Objectives for Municipal and Industrial Beneficial Uses
 - Table 2 – Water Quality Objectives for Agricultural Beneficial Uses
 - Table 3 – Water Quality Objectives for Fish and Wildlife Beneficial Uses
 - Table 4 – Number of Days When Maximum Daily Average Electrical Conductivity of 2.64 mmhos/cm Must Be Maintained at Specified Location
 - Table 5 – Water Quality Compliance and Baseline Monitoring
 - Figure 1 – Sacramento Valley Water Year Hydrologic Classification
 - Figure 2 – San Joaquin Valley Water Year Hydrologic Classification
 - Figure 3 – NDOI and Percent Inflow Diverted
 - Figure 4 – Bay-Delta Estuary Monitoring Stations

**TABLE 1
WATER QUALITY OBJECTIVES FOR
MUNICIPAL AND INDUSTRIAL BENEFICIAL USES**

COMPLIANCE LOCATION	INTERAGENCY STATION NUMBER (RKJ [1])	PARAMETER	DESCRIPTION (UNIT)	WATER YEAR TYPE [2]	TIME PERIOD	VALUE
Contra Costa Canal at Pumping Plant #1	C-5 (CHCCC06)	Chloride (Cl ⁻)	Maximum mean daily 150 mg/l Cl ⁻ for at least the number of days shown during the Calendar Year.	W		No. of days each Calendar Year ≤ 150 mg/l Cl ⁻ 240 (66%)
-or-				AN		190 (52%)
San Joaquin River at Antioch Water Works Intake	D-12 (near) (RSAN007)		Must be provided in intervals of not less than two weeks duration (Percentage of Calendar Year shown in parenthesis)	BN		175 (48%)
				D		165 (45%)
				C		155 (42%)
Contra Costa Canal at Pumping Plant #1	C-5 (CHCCC06)	Chloride (Cl ⁻)	Maximum mean daily (mg/l)	All	Oct-Sep	250
-and-						
West Canal at mouth of Clifton Court Forebay	C-9 (CHWST0)					
-and-						
Delta-Mendota Canal at Tracy Pumping Plant	DMC-1 (CHDMC004)					
-and-						
Barker Slough at North Bay Aqueduct Intake	— (SLSAR3)					
-and-						
Cache Slough at City of Vallejo Intake [3]	C-19 (SLCCH16)					

[1] River Kilometer Index station number

[2] The Sacramento Valley 40-30-30 water year hydrologic classification index (see Figure 1) applies for determinations of water year type.

[3] The Cache Slough objective to be effective only when water is being diverted from this location.

**TABLE 2
WATER QUALITY OBJECTIVES FOR AGRICULTURAL BENEFICIAL USES**

COMPLIANCE LOCATION	INTERAGENCY STATION NUMBER (RKI [1])	PARAMETER	DESCRIPTION (UNIT) [2]	WATER YEAR TYPE [3]	TIME PERIOD	VALUE					
WESTERN DELTA											
Sacramento River at Eminaton	D-22 (RSAC092)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC (mmhos/cm)		0.45 EC	EC from date shown to Aug 15 [4]					
					April 1 to date shown	—					
					Aug 15	—					
					Jul 1	0.83					
					Jun 20	1.14					
San Joaquin River at Jersey Point	D-151 (RSAN018)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC (mmhos/cm)		0.45 EC	EC from date shown to Aug 15 [4]					
					April 1 to date shown	—					
					Aug 15	—					
					Aug 15	—					
					Jun 20	0.74					
					Jun 15	1.35					
					—	2.20					
					INTERIOR DELTA						
					South Fork Mokelumne River at Tarninos	C-13 (RSMKL08)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC (mmhos/cm)		0.45 EC	EC from date shown to Aug 15 [4]
										April 1 to date shown	—
Aug 15	—										
Aug 15	—										
Aug 15	—										
San Joaquin River at San Andreas Landing	C-4 (RSAN032)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC (mmhos/cm)		0.45 EC	EC from date shown to Aug 15 [4]					
					April 1 to date shown	—					
					Aug 15	—					
					Aug 15	—					
					Jun 25	0.58					
					—	0.87					
					SOUTHERN DELTA						
					San Joaquin River at Airport Way Bridge, Vernalis -and- San Joaquin River at Brandt Bridge site [5] -and- Old River near Middle River [5] -and- Old River at Tracy Road Bridge [5]	C-10 (RSAN112) C-6 (RSAN073) C-8 (ROLD69) P-12 (ROLD59)	Electrical Conductivity (EC)	Maximum 30-day running average of mean daily EC (mmhos/cm)	All	Apr-Aug	0.7
										Sep-Mar	1.0
										EXPORT AREA	
West Canal at mouth of Clifton Court Forebay -and- Delta-Mendota Canal at Tracy Pumping Plant	C-9 (CHWST0) DMC-1 (CHDMC004)	Electrical Conductivity (EC)	Maximum monthly average of mean daily EC (mmhos/cm)	All						Oct-Sep	1.0

[1] River Kilometer Index station number.

[2] Determination of compliance with an objective expressed as a running average begins on the last day of the averaging period. The averaging period commences with the first day of the time period for the applicable objective. If the objective is not met on the last day of the averaging period, all days in the averaging period are considered out of compliance.

[3] The Sacramento Valley 40-30-30 water year hydrologic classification index (see Figure 1) applies for determinations of water year type.

[4] When no date is shown, EC limit continues from April 1.

[5] The 0.7 EC objective becomes effective on April 1, 2005. The DWR and the USBR shall meet 1.0 EC at these stations year round until April 1, 2005. The 0.7 EC objective is replaced by the 1.0 EC objective from April through August after April 1, 2005 if permanent barriers are constructed, or equivalent measures are implemented, in the southern Delta and an operations plan that reasonably protects southern Delta agriculture is prepared by the DWR and the USBR and approved by the Executive Director of the SWRCB. The SWRCB will review the salinity objectives for the southern Delta in the next review of the Bay-Delta objectives following construction of the barriers.

TABLE 3
WATER QUALITY OBJECTIVES FOR FISH AND WILDLIFE BENEFICIAL USES

COMPLIANCE LOCATION	INTERAGENCY STATION NUMBER (RKI [1])	PARAMETER	DESCRIPTION (UNIT) [2]	WATER YEAR TYPE [3]	TIME PERIOD	VALUE
SAN JOAQUIN RIVER SALINITY						
San Joaquin River at and between Jersey Point and Prisoners Point [4]	D-15 (RSAN018) -and- D-29 (RSAN038)	Electrical Conductivity (EC)	Maximum 14-day running average of mean daily EC (mmhos/cm)	W, AN, BN, D	Apr-May	0.44 [5]
EASTERN SUISUN MARSH SALINITY						
Sacramento River at Collinsville	C-2 (RSAC081)	Electrical Conductivity (EC)	Maximum monthly average of both daily high tide EC values (mmhos/cm), or demonstrate that equivalent or better protection will be provided at the location	All	Oct	19.0
-and- Montezuma Slough at National Steel	S-64 (SLMZU25)				Nov-Dec	15.5
-and- Montezuma Slough near Beldon Landing	S-49 (SLMZU11)				Jan	12.5
					Feb-Mar	8.0
				Apr-May	11.0	
WESTERN SUISUN MARSH SALINITY						
Chadbourne Slough at Sunrise Duck Club	S-21 (SLCBN1)	Electrical Conductivity (EC)	Maximum monthly average of both daily high tide EC values (mmhos/cm), or demonstrate that equivalent or better protection will be provided at the location	All but deficiency period [6]	Oct	19.0
-and- Suisun Slough, 300 feet south of Volanti Slough	S-42 (SLSUS12)				Nov	16.5
					Dec	15.5
					Jan	12.5
					Feb-Mar	8.0
					Apr-May	11.0
			Deficiency Period [6]	Oct	19.0	
				Nov	16.5	
				Dec-Mar	15.6	
				Apr	14.0	
				May	12.5	

TABLE 3 (continued)
WATER QUALITY OBJECTIVES FOR FISH AND WILDLIFE BENEFICIAL USES

COMPLIANCE LOCATION	INTERAGENCY STATION NUMBER(RK11)[1]	PARAMETER	DESCRIPTION (UNIT)[2]	WATER YEAR TYPE [3]	TIME PERIOD	VALUE
DELTA OUTFLOW						
		Net Delta Outflow Index (NDOI) [7]	Minimum monthly average [8] NDOI (cfs)	All	Jan	4,500 [9]
				All	Feb-Jun	[10]
				W,AN	Jul	6,000
				BN		6,500
				D		5,000
				C		4,000
				W,AN,BN	Aug	4,000
				D		3,500
				C		3,000
				All	Sep	3,000
				W,AN,BN,D	Oct	4,000
				C		3,000
				W,AN,BN,D	Nov-Dec	4,500
				C		3,500
RIVER FLOWS						
Sacramento River at Rio Vista	D-24 (RSAC101)	Flow rate	Minimum monthly average [11] flow rate (cfs)	All	Sep	3,000
				W,AN,BN,D	Oct	4,000
				C		3,000
				W,AN,BN,D	Nov-Dec	4,500
				C		3,500
San Joaquin River at Airport Way Bridge, Vernalis	C-10 (RSAN112)	Flow rate	Minimum monthly average [12] flow rate (cfs) [13]	W,AN	Feb-Apr 14 and	2,130 or 3,420
				BN,D	May 15-Jun	1,420 or 2,280
				C		710 or 1,140
				W	Apr 15-	7,330 or 8,620
				AN	May 15 [14]	5,730 or 7,020
				BN		4,620 or 5,480
				D		4,020 or 4,880
				C		3,110 or 3,540
				All	Oct	1,000 [15]
EXPORT LIMITS						
		Combined export rate [16]	Maximum 3-day running average (cfs)	All	Apr 15-May 15 [17]	[18]
			Maximum percent of Delta inflow diverted [19] [20]	All	Feb-Jun	35% Delta inflow [21]
				All	Jul-Jan	65% Delta inflow
DELTA CROSS CHANNEL GATES CLOSURE						
Delta Cross Channel at Walnut Grove	—	Closure of gates	Closed gates	All	Nov-Jan	[22]
					Feb-May 20	—
					May 21-Jun 15	[23]

Table 3 Footnotes

- [1] River Kilometer Index station number.
- [2] Determination of compliance with an objective expressed as a running average begins on the last day of the averaging period. The averaging period commences with the first day of the time period of the applicable objective. If the objective is not met on the last day of the averaging period, all days in the averaging period are considered out of compliance.
- [3] The Sacramento Valley 40-30-30 Water Year Hydrologic Classification Index (see Figure 1) applies unless otherwise specified.
- [4] Compliance will be determined at Jersey Point (station D15) and Prisoners Point (station D29).
- [5] This standard does not apply in May when the best available May estimate of the Sacramento River Index for the water year is less than 8.1 MAF at the 90% exceedence level. [Note: The Sacramento River Index refers to the sum of the unimpaired runoff in the water year as published in the DWR Bulletin 120 for the following locations: Sacramento River above Bend Bridge, near Red Bluff; Feather River, total unimpaired inflow to Oroville Reservoir; Yuba River at Smartville; and American River, total unimpaired inflow to Folsom Reservoir.]
- [6] A deficiency period is: (1) the second consecutive dry water year following a critical year; (2) a dry water year following a year in which the Sacramento River Index (described in footnote 5) was less than 11.35 MAF; or (3) a critical water year following a dry or critical water year. The determination of a deficiency period is made using the prior year's final Water Year Type determination and a forecast of the current year's Water Year Type; and remains in effect until a subsequent water year is other than a Dry or Critical water year as announced on May 31 by DWR and USBR as the final water year determination.
- [7] Net Delta Outflow Index (NDOI) is defined in Figure 3.
- [8] For the May-January objectives, if the value is less than or equal to 5,000 cfs, the 7-day running average shall not be less than 1,000 cfs below the value; if the value is greater than 5,000 cfs, the 7-day running average shall not be less than 80% of the value.
- [9] The objective is increased to 6,000 cfs if the best available estimate of the Eight River Index for December is greater than 800 TAF. [Note: The Eight River Index refers to the sum of the unimpaired runoff as published in the DWR Bulletin 120 for the following locations: Sacramento River flow at Bend Bridge, near Red Bluff; Feather River, total inflow to Oroville Reservoir; Yuba River flow at Smartville; American River, total inflow to Folsom Reservoir; Stanislaus River, total inflow to New Melones Reservoir; Tuolumne River, total inflow to Don Pedro Reservoir; Merced River, total inflow to Exchequer Reservoir; and San Joaquin River, total inflow to Millerton Lake.]
- [10] The minimum daily net Delta outflow shall be 7,100 cfs for this period, calculated as a 3-day running average. This requirement is also met if either the daily average or 14-day running average EC at the confluence of the Sacramento and the San Joaquin rivers is less than or equal to 2.64 mmhos/cm (Collinsville station C2). If the best available estimate of the Eight River Index (described in footnote 9) for January is more than 900 TAF, the daily average or 14-day running average EC at station C2 shall be less than or equal to 2.64 mmhos/cm for at least one day between February 1 and February 14; however, if the best available estimate of the Eight River Index for January is between 650 TAF and 900 TAF, the Executive Director of the SWRCB is delegated authority to decide whether this requirement applies. If the best available estimate of the Eight River Index for February is less than 500 TAF, the standard may be further relaxed in March upon the request of the DWR and the USBR, subject to the approval of the Executive Director of the SWRCB. The standard does not apply in May and June if the best available May estimate of the Sacramento River Index (described in footnote 5) for the water year is less than 8.1 MAF at the 90% exceedence level.

Under this circumstance, a minimum 14-day running average flow of 4,000 cfs is required in May and June. Additional Delta outflow objectives are contained in Table 4.

- [11] The 7-day running average shall not be less than 1,000 cfs below the monthly objective.
- [12] Partial months are averaged for that period. For example, the flow rate for April 1-14 would be averaged over 14 days. The 7-day running average shall not be less than 20% below the flow rate objective, with the exception of the April 15-May 15 pulse flow period when this restriction does not apply.
- [13] The water year classification for the San Joaquin River flow objectives will be established using the best available estimate of the 60-20-20 San Joaquin Valley Water Year Hydrologic Classification (see Figure 2) at the 75% exceedence level. The higher flow objective applies when the 2-ppt isohaline (measured as 2.64 mmhos/cm surface salinity) is required to be at or west of Chippis Island.
- [14] This time period may be varied based on real-time monitoring. One pulse, or two separate pulses of combined duration equal to the single pulse, should be scheduled to coincide with fish migration in San Joaquin River tributaries and the Delta. The USBR will schedule the time period of the pulse or pulses in consultation with the USFWS, the NMFS, and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement. The schedule is subject to the approval of the Executive Director of the SWRCB.
- [15] Plus up to an additional 28 TAF pulse/attraction flow during all water year types. The amount of additional water will be limited to that amount necessary to provide a monthly average flow of 2,000 cfs. The additional 28 TAF is not required in a critical year following a critical year. The pulse flow will be scheduled by the DWR and the USBR in consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.
- [16] Combined export rate for this objective is defined as the Clifton Court Forebay inflow rate (minus actual Byron-Bethany Irrigation District diversions from Clifton Court Forebay) and the export rate of the Tracy pumping plant.
- [17] This time period may be varied based on real-time monitoring and will coincide with the San Joaquin River pulse flow described in footnote 18. The DWR and the USBR, in consultation with the USFWS, the NMFS and the DFG, will determine the time period for this 31-day export limit. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.
- [18] Maximum export rate is 1,500 cfs or 100% of 3-day running average of San Joaquin River flow at Vernalis, whichever is greater. Variations to this maximum export rate may be authorized if agreed to by the USFWS, the NMFS and the DFG. This flexibility is intended to result in no net water supply cost annually within the limits of the water quality and operational requirements of this plan. Variations may result from recommendations of agencies for protection of fish resources, including actions taken pursuant to the State and federal Endangered Species Act. Any variations will be effective immediately upon notice to the Executive Director of the SWRCB. If the Executive Director of the SWRCB does not object to the variations within 10 days, the variations will remain in effect. The Executive Director of the SWRCB is also authorized to grant short-term exemptions to export limits for the purpose of facilitating a study of the feasibility of recirculating export water into the San Joaquin River to meet flow objectives.
- [19] Percent of Delta inflow diverted is defined in Figure 3. For the calculation of maximum percent Delta inflow diverted, the export rate is a 3-day running average and the Delta inflow is a 14-day running average, except when the CVP or the SWP is making storage withdrawals for export, in which case both the export rate and the Delta inflow are 3-day running averages.

- [20] The percent Delta inflow diverted values can be varied either up or down. Variations are authorized subject to the process described in footnote 18.
- [21] If the best available estimate of the Eight River Index (described in footnote 9) for January is less than or equal to 1.0 MAF, the export limit for February is 45% of Delta inflow. If the best available estimate of the Eight River Index for January is greater than 1.5 MAF, the February export limit is 35% of Delta inflow. If the best available estimate of the Eight River Index for January is between 1.0 MAF and 1.5 MAF, the DWR and the USBR will set the export limit for February within the range of 35% to 45%, after consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.
- [22] For the November-January period, close Delta Cross Channel gates for a total of up to 45 days. The USBR will determine the timing and duration of the gate closure after consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.
- [23] For the May 21-June 15 period, close Delta Cross Channel gates for a total of 14 days. The USBR will determine the timing and duration of the gate closure after consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.

**Figure 1
Sacramento Valley
Water Year Hydrologic Classification**

Year classification shall be determined by computation of the following equation:

$$\text{INDEX} = 0.4 * X + 0.3 * Y + 0.3 * Z$$

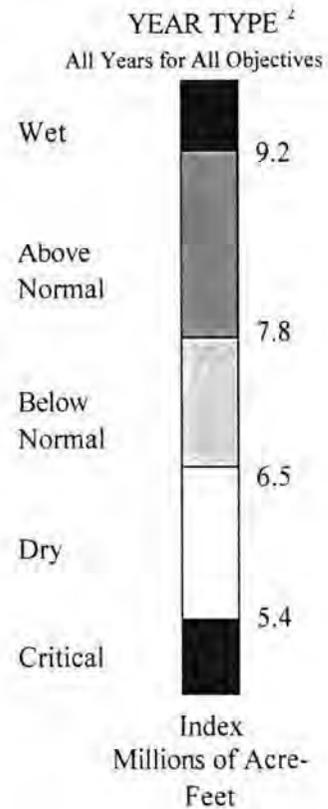
Where: X = Current year's April – July
Sacramento Valley unimpaired runoff

Y = Current October – March
Sacramento Valley unimpaired runoff

Z = Previous year's index¹

The Sacramento Valley unimpaired runoff for the current water year (October 1 of the preceding calendar year through September 30 of the current calendar year), as published in California Department of Water Resources Bulletin 120, is a forecast of the sum of the following locations: Sacramento River above Bend Bridge, near Red Bluff; Feather River, total inflow to Oroville Reservoir; Yuba River at Smartville; American River, total inflow to Folsom Reservoir. Preliminary determinations of year classification shall be made in February, March, and April with final determination in May. These preliminary determinations shall be based on hydrologic conditions to date plus forecasts of future runoff assuming normal precipitation for the remainder of the water year.

<u>Classification</u>	<u>Index Millions of Acre-Feet (MAF)</u>
Wet	Equal to or greater than 9.2
Above Normal	Greater than 7.8 and less than 9.2
Below Normal	Equal to or less than 7.8 and greater than 6.5
Dry	Equal to or less than 6.5 and greater than 5.4
Critical	Equal to or less than 5.4



¹ A cap of 10.0 MAF is put on the previous year's index (Z) to account for required flood control reservoir releases during wet years.

² The year type for the preceding water year will remain in effect until the initial forecast of unimpaired runoff for the current water year is available.

Figure 2
San Joaquin Valley
Water Year Hydrologic Classification

Year classification shall be determined by computation of the following equation:

$$\text{INDEX} = 0.6 * X + 0.2 * Y + 0.2 * Z$$

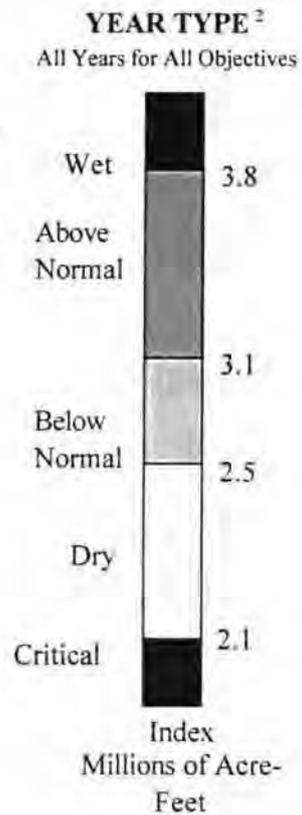
Where: X = Current year's April – July
 San Joaquin Valley unimpaired runoff

Y = Current October – March
 San Joaquin Valley unimpaired runoff

Z = Previous year's index¹

The San Joaquin Valley unimpaired runoff for the current water year (October 1 of the preceding calendar year through September 30 of the current calendar year), as published in California Department of Water Resources Bulletin 120, is a forecast of the sum of the following locations: Stanislaus River, total flow to New Melones Reservoir; Tuolumne River, total inflow to Don Pedro Reservoir; Merced River, total flow to Exchequer Reservoir; San Joaquin River, total inflow to Millerton Lake. Preliminary determinations of year classification shall be made in February, March, and April with final determination in May. These preliminary determinations shall be based on hydrologic conditions to date plus forecasts of future runoff assuming normal precipitation for the remainder of the water year.

<u>Classification</u>	<u>Index</u> <u>Millions of Acre-Feet (MAF)</u>
Wet	Equal to or greater than 3.8
Above Normal	Greater than 3.1 and less than 3.8
Below Normal	Equal to or less than 3.1 and greater than 2.5
Dry	Equal to or less than 2.5 and greater than 2.1
Critical	Equal to or less than 2.1



¹ A cap of 4.5 MAF is put on the previous year's index (Z) to account for required flood control reservoir releases during wet years.

² The year type for the preceding water year will remain in effect until the initial forecast of unimpaired runoff for the current water year is available.

Figure 3
NDOI and PERCENT INFLOW DIVERTED ¹

The NDOI and the percent inflow diverted, as described in this footnote, shall be computed daily by the DWR and the USBR using the following formulas (all flows are in cfs):

$$NDOI = DELTA\ INFLOW - NET\ DELTA\ CONSUMPTIVE\ USE - DELTA\ EXPORTS$$

$$PERCENT\ INFLOW\ DIVERTED = (CCF + TPP) \div DELTA\ INFLOW$$

where $DELTA\ INFLOW = SAC + SRTP + YOLO + EAST + MISC + SJR$

- SAC* = Sacramento River at Freeport mean daily flow for the previous day; the 25-hour tidal cycle measurements from 12:00 midnight to 1:00 a.m. may be used instead.
- SRTP* = Sacramento Regional Treatment Plant average daily discharge for the previous week.
- YOLO* = Yolo Bypass mean daily flow for the previous day, which is equal to the flows from the Sacramento Weir, Fremont Weir, Cache Creek at Rumsey, and the South Fork of Putah Creek.
- EAST* = Eastside Streams mean daily flow for the previous day from the Mokelumne River at Woodbridge, Cosumnes River at Michigan Bar, and Calaveras River at Bellota.
- MISC* = Combined mean daily flow for the previous day of Bear Creek, Dry Creek, Stockton Diverting Canal, French Camp Slough, Marsh Creek, and Morrison Creek.
- SJR* = San Joaquin River flow at Vernalis, mean daily flow for the previous day.

where $NET\ DELTA\ CONSUMPTIVE\ USE = GDEPL - PREC$

- GDEPL* = Delta gross channel depletion for the previous day based on water year type using the DWR's latest Delta land use study.²
- PREC* = Real-time Delta precipitation runoff for the previous day estimated from stations within the Delta.

and where $DELTA\ EXPORTS^3 = CCF + TPP + CCC + NBA$

- CCF* = Clifton Court Forebay inflow for the current day.⁴
- TPP* = Tracy Pumping Plant pumping for the current day.
- CCC* = Contra Costa Canal pumping for the current day.
- NBA* = North Bay Aqueduct pumping for the current day.

1 Not all of the Delta tributary streams are gaged and telemetered. When appropriate, other methods of estimating stream flows, such as correlations with precipitation or runoff from nearby streams, may be used instead.

2 The DWR is currently developing new channel depletion estimates. If these new estimates are not available, DAYFLOW channel depletion estimates shall be used.

3 The term "Delta Exports" is used only to calculate the NDOI. It is not intended to distinguish among the listed diversions with respect to eligibility for protection under the area of origin provisions of the California Water Code.

4 Actual Byron-Bethany Irrigation District withdrawals from Clifton Court Forebay shall be subtracted from Clifton Court Forebay inflow. (Byron-Bethany Irrigation District water use is incorporated into the GDEPL term.)

Table 4. Number of Days When Maximum Daily Average Electrical Conductivity of 2.64 mmhos/cm Must Be Maintained at Specified Location

Number of Days When Maximum Daily Average Electrical Conductivity of 2.64 mmhos/cm Must Be Maintained at Specified Location ^[a]																	
PMI ^[b] (TAF)	Chippis Island (Chippis Island Station D10)					PMI ^[b] (TAF)	Port Chicago (Port Chicago Station C14) ^[d]					PMI ^[b] (TAF)	Port Chicago (Port Chicago Station C14) ^[d]				
	FEB	MAR	APR	MAY	JUN		FEB	MAR	APR	MAY	JUN		FEB	MAR	APR	MAY	JUN
≤ 500	0	0	0	0	0	0	0	0	0	0	0	5250	27	29	25	26	6
750	0	0	0	0	0	250	1	0	0	0	0	5500	27	29	26	28	9
1000	28 ^[c]	12	2	0	0	500	4	1	0	0	0	5750	27	29	27	28	13
1250	28	31	6	0	0	750	8	2	0	0	0	6000	27	29	27	29	16
1500	28	31	13	0	0	1000	12	4	0	0	0	6250	27	30	27	29	19
1750	28	31	20	0	0	1250	15	6	1	0	0	6500	27	30	28	30	22
2000	28	31	25	1	0	1500	18	9	1	0	0	6750	27	30	28	30	24
2250	28	31	27	3	0	1750	20	12	2	0	0	7000	27	30	28	30	26
2500	28	31	29	11	1	2000	21	15	4	0	0	7250	27	30	28	30	27
2750	28	31	29	20	2	2250	22	17	5	1	0	7500	27	30	29	30	28
3000	28	31	30	27	4	2500	23	19	8	1	0	7750	27	30	29	31	28
3250	28	31	30	29	8	2750	24	21	10	2	0	8000	27	30	29	31	29
3500	28	31	30	30	13	3000	25	23	12	4	0	8250	28	30	29	31	29
3750	28	31	30	31	18	3250	25	24	14	6	0	8500	28	30	29	31	29
4000	28	31	30	31	23	3500	25	25	16	9	0	8750	28	30	29	31	30
4250	28	31	30	31	25	3750	26	26	18	12	0	9000	28	30	29	31	30
4500	28	31	30	31	27	4000	26	27	20	15	0	9250	28	30	29	31	30
4750	28	31	30	31	28	4250	26	27	21	18	1	9500	28	31	29	31	30
5000	28	31	30	31	29	4500	26	28	23	21	2	9750	28	31	29	31	30
5250	28	31	30	31	29	4750	27	28	24	23	3	10000	28	31	30	31	30
≤ 5500	28	31	30	31	30	5000	27	28	25	25	4	>10000	28	31	30	31	30

- [a] The requirement for number of days the maximum daily average EC (EC) of 2.64 mmhos per centimeter (mmhos/cm) must be maintained at Chippis Island and Port Chicago can also be met with maximum 14-day running average EC of 2.64 mmhos/cm, or 3-day running average NDOIs of 11,400 cfs and 29,200 cfs, respectively. If salinity/flow objectives are met for a greater number of days than the requirements for any month, the excess days shall be applied to meeting the requirements for the following month. The number of days for values of the PMI between those specified in this table shall be determined by linear interpolation.
- [b] PMI is the best available estimate of the previous month's Eight River Index. (Refer to Footnote 10 for Table 3 for a description of the Eight River Index.)
- [c] When the PMI is between 800 TAF and 1000 TAF, the number of days the maximum daily average EC of 2.64 mmhos/cm (or maximum 14-day running average EC of 2.64 mmhos/cm, or 3-day running average NDOI of 11,400 cfs) must be maintained at Chippis Island in February is determined by linear interpolation between 0 and 28 days.
- [d] This standard applies only in months when the average EC at Port Chicago during the 14 days immediately prior to the first day of the month is less than or equal to 2.64 mmhos/cm.

Table 5. Water Quality Compliance and Baseline Monitoring

Station Number	Station Description	Cont. Rec.¹	Physical/Chemical²	Multi-parameter³	Phytoplankton	Zooplankton	Benthos⁴
C2 ■	Sacramento River @ Collinsville	*					
C3 ▲	Sacramento River @ Greens Landing		*	*	*		
C4 ■	San Joaquin River @ San Andreas Ldg.	*					
C5 ■	Contra Costa Canal @ Pumping Plant #1	*					
C6 ■	San Joaquin River @ Brandt Bridge site	*					
C7 ▲	San Joaquin River @ Mossdale Bridge			*			
C8 ■	Old River near Middle River	*					
C9 •	West Canal at mouth of CCForebay Intake				*		*
C10 •	San Joaquin River near Vernalis		*		*		
C13 ■	Mokelumne River @ Terminous	*					
C14 ■	Sacramento River @ Port Chicago	*					
C19 ■	Cache Slough @ City of Vallejo Intake	*					
D4 ▲	Sacramento River above Point Sacramento		*		*	*	*
D6 ▲	Suisun Bay @ Bulls Head Pt. nr. Martinez		*	*	*	*	*
D7 ▲	Grizzly Bay @ Dolphin nr. Suisun Slough		*		*	*	*
D8 ▲	Suisun Bay off Middle Point near Nichols		*		*	*	
D10 •	Sacramento River @ Chipps Island			*		*	
D12 •	San Joaquin River @ Antioch Ship Canal			*		*	
D15 ■	San Joaquin River @ Jersey Point	*					
D16 ▲	San Joaquin River @ Twitchell Island					*	*
D22 •	Sacramento River @ Emmaton					*	
D24 •	Sacramento River below Rio Vista Bridge			*			*
D26 ▲	San Joaquin River @ Potato Point		*		*	*	
D28A ▲	Old River near Rancho Del Rio		*	*	*	*	*
D29 ■	San Joaquin River @ Prisoners Point	*					
D41 ▲	San Pablo Bay near Pinole Point		*		*		*
D41A ▲	San Pablo Bay nr. mouth of Petaluma R.						*
DMC1 •	Delta-Mendota Canal at Tracy Pump. Plt.			*			
P8 ▲	San Joaquin River @ Buckley Cove		*	*	*	*	*
P12 ■	Old River @ Tracy Road Bridge	*					
MD10 ▲	Disappointment Slough near Bishop Cut		*		*	*	
S21 ■	Chadbourne Slough @ Sunrise Duck Club	*					
S35 ▲	Goodyear Sl. @ Morrow Is. Clubhouse	*					
S42 •	Suisun Slough 300' so. of Volanti Slough	*				*	
S49 ■	Montezuma Slough near Beldon Landing	*					
S64 ■	Montezuma Slough @ National Steel	*					
S97 ▲	Cordelia Slough @ Ibis Club	*					
NZ032 ▲	Montezuma Slough, 2nd bend from mouth					*	

(continued)

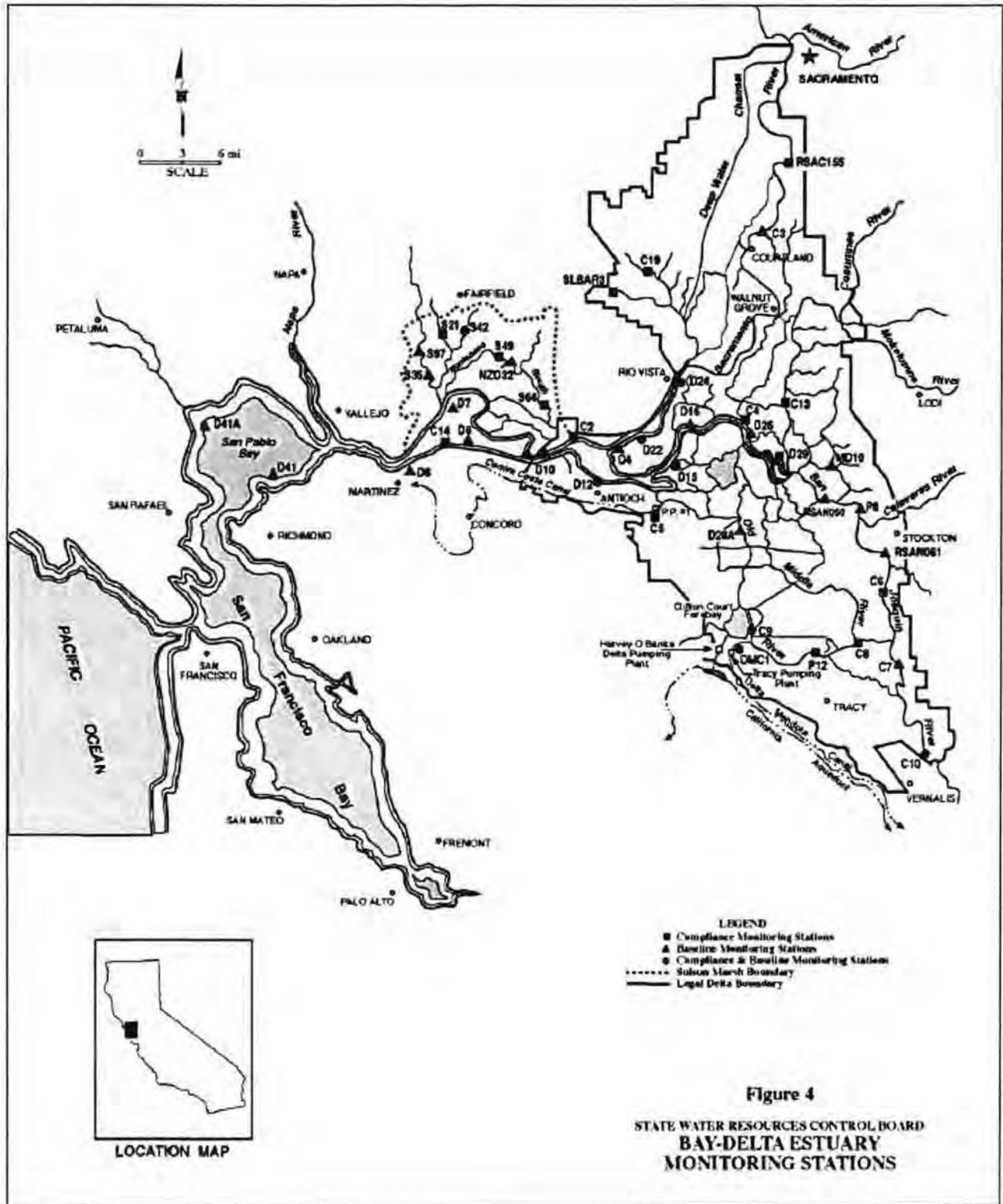
■ Compliance monitoring station ▲ Baseline monitoring station • Compliance and baseline monitoring station

Table 5. Water Quality Compliance and Baseline Monitoring (continued)

Station Number	Station Description	Cont. Rec.	Physical/Chemical	Multi-parameter	Phytoplankton	Zooplankton	Benthos
— ■	Sacramento R. (I St. Bridge to Freeport) (RSAC155)	*					
— ▲	San Joaquin R. (Turner Cut to Stockton) (RSAN050-RSAN061)	*					
— ■	Barker Sl. at No. Bay Aqueduct (SLBAR3)	*					
— ▲	Water supply intakes for waterfowl management areas on Van Sickle Island and Chipps Island	*					

■ Compliance monitoring station ▲ Baseline monitoring station * Compliance and baseline monitoring station

- 1 Continuous recorder only (EC, dissolved oxygen, and/or temperature). For municipal and industrial intake chlorides objectives, EC can be monitored and converted to chlorides.
- 2 Physical/chemical monitoring is conducted monthly at discrete sites and includes the following parameters: water column depth, secchi, nutrient series (inorganic and organic N-P), water temperature, dissolved oxygen, electrical conductivity, turbidity, and chlorophyll *a*. In addition, on-board recording for vertical and horizontal profiles is conducted intermittently for the following parameters: water temperature, dissolved oxygen, electrical conductivity, turbidity, and chlorophyll *a*.
- 3 Multi-parameter monitoring is conducted continuously and provides telemetered data on the following parameters: water temperature, pH, dissolved oxygen, electrical conductivity, turbidity, chlorophyll *a*, wind speed and direction, solar radiation, air temperature, and tidal elevation.
- 4 Sampling occurs monthly at discrete sites.



Attachment 2

DWR Program Decision Document And CEQA Certification

CEQA Decision and Project Approval

The California Department of Water Resources (DWR) and the U.S. Department of the Interior, Bureau of Reclamation (Reclamation) have prepared a Final Program Environmental Impact Statement/Report (PEIS/R) for the San Joaquin River Restoration Program (SJRRP). DWR is the CEQA lead agency in preparing the PEIS/R. DWR Deputy Director Gary Bardini will certify the PEIS/R and approve the SJRRP under a delegation of authority from Director Mark Cowin (DO No. 4).

The Decision Document has been prepared to facilitate the review and consideration of the PEIS/R. The Findings of Fact and Statement of Overriding Consideration, the Mitigation Monitoring and Reporting Plan, and the Notice of Determination are appendices to this Decision Document. This document provides background on the SJRRP, describes the CEQA process, and summarizes components of the PEIS/R certification process. After the Deputy Director reviews and considers the above information, including the administrative record, he will determine whether to certify the PEIS/R, approve the SJRRP, and allow for the State Water Resources Control Board to take discretionary action in the form of a water rights approval related to the release and conveyance of Interim and Restoration flows. To document the steps required before approving a project under CEQA, the Decision Document includes for your signature the certification of CEQA compliance. Also for your signature is the Adoption of CEQA Findings, Statement of Overriding Considerations, and the Mitigation Monitoring and Reporting Plan. Once the SJRRP is approved, the Notice of Determination will then be filed with the State Clearinghouse and will start a 30-day statute of limitations.

Background

In 2006, the SJRRP was established to implement the Stipulation of Settlement in *NRDC, et al., v. Kirk Rodgers, et al.* DWR, as the State of California (State) lead agency pursuant to Section 15050 of the California Environmental Quality Act Guidelines (State CEQA Guidelines) (Title 14 of the California Code of Regulations, Section 15000 et seq.), and Reclamation, as the Federal lead agency under the National Environmental Policy Act (NEPA), have prepared a joint PEIS/R for implementation of the Stipulation of Settlement (Settlement) in *NRDC et al. v. Kirk Rodgers et al.*, consistent with the San Joaquin River Restoration Settlement Act (Act) (Public Law 111-11). The PEIS/R has State Clearinghouse No. 2007081125. Implementation of the Act is through the SJRRP, and the SJRRP PEIS/R consists of the

April 2011 Draft Program Environmental Impact Statement/Report (Draft PEIS/R) and the July 2012 Final Program Environmental Impact Statement/Report (Final PEIS/R). The PEIS/R evaluates, at a program level of detail, the potential direct, indirect, and cumulative impacts on the environment that could result from implementing the Settlement. The PEIS/R also analyzes, at a project level of detail, the potential direct, indirect, and cumulative impacts that could result from implementing the following aspects of the Settlement: release, conveyance, and recapture of Interim and Restoration flows; monitoring and management actions; and conservation measures. These project-level actions addressed in the PEIS/R are actions to be undertaken by Reclamation, and the effects of these actions are the sole responsibility of Reclamation. DWR serves as the CEQA lead agency for the entire SJRRP, although DWR is not taking any discretionary action for the project-level actions analyzed in the PEIS/R. SWRCB has been identified as a CEQA Responsible Agency and is expected to take discretionary action in the form of a water rights approval related to the release and conveyance of Interim and Restoration flows. In addition, the PEIS/R evaluates a reasonable range of feasible alternatives to the proposed Program and includes feasible mitigation measures to avoid, minimize, rectify, reduce, or compensate for significant adverse impacts.

To initiate the CEQA process, DWR issued a Notice of Preparation (NOP) on August 22, 2007, to prepare the Draft PEIS/R and hold public meetings. The scoping comment period began August 2, 2007 and ended on September 26, 2007. Reclamation and DWR convened four public meetings during the scoping process to inform the public and interested stakeholders about the SJRRP, and to solicit comments and input on the scope of the PEIS/R.

Reclamation and DWR received comments from 85 entities during the scoping process, including Federal and State agencies, local interest groups, local residents, farmers, landowners, environmental groups, public advocacy groups, Native American community groups, and individuals. The comments received were summarized in a *Public Scoping Report* released by Reclamation and DWR on December 14, 2007.

Public involvement and outreach activities have enabled the SJRRP Implementing Agencies (Reclamation, DWR, National Marine Fisheries Service, US Fish and Wildlife Service, California Department of Fish and Game, and California Environmental Protection Agency) to successfully involve stakeholders, and incorporate public and stakeholder input into the development of major SJRRP documents, including the Draft and Final PEIS/R.

DWR and Reclamation have prepared the PEIS/R for the SJRRP to describe, analyze, and discuss the proposed Program's potential environmental impacts and address comments raised in the scoping meetings, public meetings on the Draft PEIS/R, and other public comments. The Final PEIS/R for the SJRRP includes the Draft PEIS/R, all comments received on the Draft PEIS/R during the review period and DWR and Reclamation responses to those comments, and numerous appendices. On July 31, 2012, copies of the Final PEIS/R were made available to all public, local, and individuals

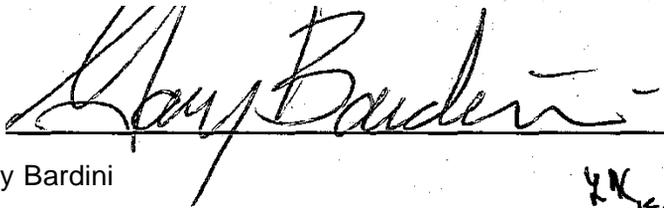
that submitted comments on the Draft PEIS/R. This meets and exceeds the requirements of Public Resources Code Section 21092.5.

Prior to the Deputy Director certifying the PEIS/R and approving the SJRRP under CEQA, he must review and consider the information contained in the PEIS/R and make findings regarding the Project's significant environmental impacts. Below is a Certification for the Deputy Director's signature indicating that these requirements have been met, the PEIS/R reflects DWR's independent judgment and analysis, and the PEIS/R has been prepared in compliance with CEQA. If the Deputy Director is ready to approve the SJRRP on behalf of DWR, he will certify the PEIS/R, adopt the CEQA Findings and Statement of Overriding Considerations, adopt the Mitigation Monitoring and Reporting Plan, approve the SJRRP, and execute the Notice of Determination, attached.

CEQA Certification

In accordance with Section 15090 of the CEQA Guidelines, the PEIS/R for the SJRRP has been completed in compliance with CEQA, and the PEIS/R reflects the independent judgment and analysis of DWR. In addition, I have reviewed and considered the information contained in the PEIS/R prior to approving the SJRRP. "

Department of Water Resources



Gary Bardini
Deputy Director

Department of Water Resources

9/28/12

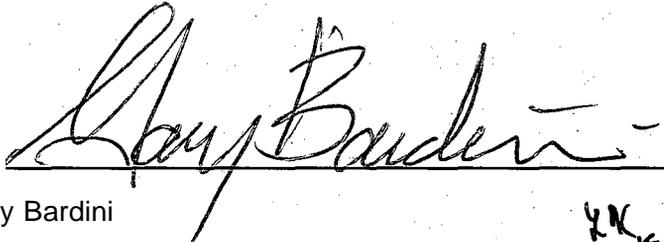
Date

YN
9-18-12

**Adoption of CEQA Findings of Fact and Statement of Overriding Consideration,
Mitigation Monitoring and Reporting Plan, and the San Joaquin River Restoration
Program**

DWR has prepared the PEIS/R for the SJRRP in accordance with CEQA. Section 15091 of the CEQA Guidelines states that "(n)o public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation for the rationale for each finding." In addition, CEQA Guidelines, Section 15097 requires a public agency to adopt a mitigation monitoring and reporting plan for projects requiring such findings. DWR has prepared the CEQA Statement of Findings, the Statement of Overriding Considerations, and the Mitigation Monitoring and Reporting Plan, attached to this Decision Document.

Thus, as the CEQA lead agency, DWR adopts the Statement of Findings, the Statement of Overriding Considerations, and the Mitigation Monitoring and Reporting Plan, and approves the SJRRP.



Gary Bardini
Deputy Director

Department of Water Resources

9/28/12

Date

YR
9-18-12

Attachment 1

1 **CERTIFICATION, FINDINGS OF FACT, AND**
2 **STATEMENT OF OVERRIDING CONSIDERATIONS**
3 **FOR THE**
4 **SAN JOAQUIN RIVER RESTORATION PROGRAM**
5 **PROGRAM EIS/EIR**
6

7
8
9
10
11
12
13 **Prepared by:**

14 **California Department of Water Resources**
15

16
17
18 **September 17, 2012**
19

1 **Table of Contents**

2 **1.0 Certification of the Program Environmental Impact Report..... 1-1**

3 **2.0 Findings..... 2-1**

4 2.1 Introduction..... 2-1

5 2.2 Environmental Review Process 2-1

6 2.2.1 Development of the Proposed SJRRP..... 2-1

7 2.2.2 Alternatives 2-2

8 2.2.3 Preparation and Public Review of the PEIS/R..... 2-9

9 2.2.4 Absence of Significant New Information 2-10

10 2.2.5 Administrative Record 2-11

11 2.3 Findings Required Under CEQA 2-12

12 2.3.1 Findings Related to Program- and Project-Level Impacts 2-13

13 2.3.2 Findings Related to Cumulative Impacts 2-60

14 2.3.3 Findings Related to Project Alternatives 2-67

15 2.4 Summary of Findings..... 2-73

16 **3.0 Statement of Overriding Considerations..... 3-1**

17 **4.0 References..... 4-1**

18

19

1 **Tables**

2 Table 2-1. Actions Included under Action Alternatives 2-5

3 Table 2-2. Summary of Less-than-Significant Impacts in the SJRRP PEIS/R..... 2-13

4 Table 2-3. Potential Mitigation Strategies 2-24

5 Table 2-4. Existing and Future Regulatory Programs 2-24

6

7

List of Abbreviations and Acronyms

1		
2	Act	San Joaquin River Restoration Settlement Act
3	ANSI	American National Standards Institute
4	APCO	air pollution control officer
5	BMP	best management practice
6	BO	biological opinion
7	CD	compact disc
8	cfs	cubic feet per second
9	CVP	Central Valley Project
10	dBA	A-weighted decibel
11	DEET	diethyl(meta)toulamide
12	Delta	Sacramento-San Joaquin Delta
13	DFG	California Department of Fish and Game
14	DMC	Delta–Mendota Canal
15	Draft PEIS/R	Draft Program Environmental Impact Statement/Report
16	DWR	California Department of Water Resources
17	Final PEIS/R	Final Program Environmental Impact Statement/Report
18	FWA	Friant Water Authority
19	GMP	groundwater management plan
20	ISR	Indirect Source Review
21	mph	miles per hour
22	NEPA	National Environmental Policy Act
23	NMFS	National Marine Fisheries Service
24	NOA	Notice of Availability
25	NOP	Notice of Preparation
26	NOX	oxides of nitrogen
27	NRDC	Natural Resources Defense Council
28	NRHP	National Register of Historic Places
29	OPR	Office of Planning and Research
30	PA	Programmatic Agreement
31	PARCS	Parks, After School, Recreation, and Community Services
32	PEIS/R	program environmental impact statement/report
33	PM _{2.5}	fine particulate matter with an aerodynamic resistance
34		diameter of 2.5 micrometers or less
35	PM ₁₀	respirable particulate matter with an aerodynamic
36		resistance diameter of 10 micrometers or less
37	PRC	California Public Resources Code

San Joaquin River Restoration Program

1	Reclamation	U.S. Bureau of Reclamation
2	ROG	reactive organic gases
3	RPA	reasonable and prudent alternative
4	RWQCB	Regional Water Quality Control Board
5	Secretary	Secretary of the Interior
6	Settlement	Stipulation of Settlement, <i>NRDC, et al., v. Rodgers, et al.</i>
7	SHPO	State Historic Preservation Officer
8	SJRC	San Joaquin River Conservancy
9	SJRRP	San Joaquin River Restoration Program
10	SJVAPCD	San Joaquin Valley Air Pollution Control District
11	SMARA	California Surface Mining and Reclamation Act
12	State	State of California
13	STC	Sound Transmission Class
14	SWP	State Water Project
15	SWPPP	storm water pollution prevention plan
16	USFWS	U.S. Fish and Wildlife Service
17	USJRBSI	Upper San Joaquin River Basin Storage Investigation
18	VDE	visible dust emissions
19		

1.0 Certification of the Program Environmental Impact Report

The California Department of Water Resources (DWR), as the State of California (State) lead agency pursuant to Section 15050 of the California Environmental Quality Act Guidelines (State CEQA Guidelines) (Title 14 of the California Code of Regulations, Section 15000 et seq.), and the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), as the Federal lead agency under the National Environmental Policy Act (NEPA), have prepared a joint Program Environmental Impact Statement/Report (PEIS/R) for implementation of the Stipulation of Settlement (Settlement) in *NRDC et al. v. Kirk Rodgers et al.*, consistent with the San Joaquin River Restoration Settlement Act (Act) (Public Law 111-11). The PEIS/R has State Clearinghouse No. 2007081125.

Implementation of the Act is through the San Joaquin River Restoration Program (SJRRP), and the SJRRP PEIS/R consists of the April 2011 Draft Program Environmental Impact Statement/Report (Draft PEIS/R) and the July 2012 Final Program Environmental Impact Statement/Report (Final PEIS/R). The PEIS/R evaluates, at a program level of detail, the potential direct, indirect, and cumulative impacts on the environment that could result from implementing the Settlement. The PEIS/R also analyzes, at a project level of detail, the potential direct, indirect, and cumulative impacts that could result from implementing the following aspects of the Settlement: release, conveyance, and recapture of Interim and Restoration flows; monitoring and management actions; and conservation measures. In addition, the PEIS/R evaluates a reasonable range of feasible alternatives to the proposed project and includes feasible mitigation measures to avoid, minimize, rectify, reduce, or compensate for significant adverse impacts.

The PEIS/R is composed of the Draft PEIS/R and the Final PEIS/R, which includes the comments on the Draft PEIS/R submitted by interested public agencies, organizations, and members of the public; provides written responses to the environmental issues raised in those comments; makes revisions to the text of the Draft PEIS/R to reflect minor changes made in response to comments and other information; and updates the description of the proposed SJRRP to reflect minor changes that have been made. Specific revisions to the Draft PEIS/R are presented in Chapter 4.0, "Errata," of the Final PEIS/R. The Final PEIS/R incorporates the Draft PEIS/R by reference; however, for purposes of these findings, references to the Final PEIS/R are generally to the July 2012 Final PEIS/R in particular. References to the PEIS/R are generally to the Draft PEIS/R and Final PEIS/R combined. The PEIS/R in its entirety is hereby incorporated in these findings by reference.

DWR certifies that it has been presented with the PEIS/R and that it has reviewed and considered the information contained in the PEIS/R before making the following certifications and the findings in Section 2.0, "Findings," and the approvals in Section 3.0, "Statement of Overriding Considerations," in this document.

1 DWR certifies the PEIS/R for the entirety of the actions as composing the SJRRP
2 described in these findings and in the PEIS/R.

3 DWR certifies that the PEIS/R has been completed in compliance with the California
4 Environmental Quality Act (CEQA) and the State CEQA Guidelines, pursuant to Section
5 15090 of the State CEQA Guidelines.

6 DWR further certifies that the PEIS/R satisfies the requirements for a PEIS/R, prepared
7 pursuant to State CEQA Guidelines Section 15168.

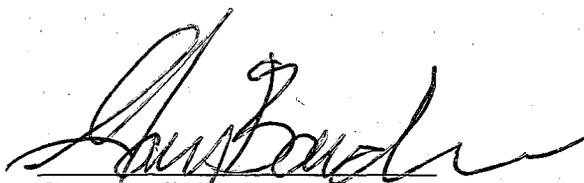
8 DWR further certifies that the PEIS/R satisfies the requirements for a joint EIS/EIR
9 pursuant to State CEQA Guidelines Sections 15222 through 15226.

10 DWR further certifies that the PEIS/R reflects its independent judgment and analysis.

11 Based on the foregoing, DWR finds and determines that as the certified EIR for the
12 SJRRP, the PEIS/R provides the basis for approval of the SJRRP, and the supporting
13 findings set forth in Section 2.0, "Findings," and Section 3.0, "Statement of Overriding
14 Considerations," of this document. In accordance with State CEQA Guidelines Section
15 15168(c), later review that may be required under the provisions of CEQA for other
16 projects implementing the SJRRP will be based on the PEIS/R as applicable.

17 DWR further finds and determines that the PEIS/R will serve as the basis for program-
18 level compliance with CEQA for all discretionary actions by other state and local
19 agencies necessary to implement the SJRRP, including other projects implementing the
20 SJRRP. Consistent with the provisions of State CEQA Guidelines Section 15152(d),
21 discretionary actions taken by state or local agencies acting as responsible or trustee
22 agencies under CEQA with respect to the SJRRP, and other projects implementing the
23 SJRRP, will be based on the PEIS/R together with any additional analysis as may be
24 applicable for such projects.

25
26
27
28
29
30
31
32
33
34
35


Gary Bardini
Deputy Director
Department of Water Resources
YK
9-15-12

9/28/12
Date

2.0 Findings

2.1 Introduction

DWR is the CEQA lead agency in preparing the PEIS/R. All project-level actions addressed in the PEIS/R are actions to be undertaken by Reclamation, and the effects of these actions are the sole responsibility of Reclamation. DWR is not taking any discretionary action for the project-level actions analyzed in the PEIS/R. SWRCB has been identified as a CEQA Responsible Agency and is expected to take discretionary action in the form of a water rights approval related to the release and conveyance of Interim and Restoration flows.

DWR is adopting these findings for the entirety of the actions described in the PEIS/R.

Having received, reviewed, and considered the PEIS/R and other information in the record of proceedings; DWR hereby adopts the following findings in compliance with CEQA, the State CEQA Guidelines, and DWR's procedures for implementing CEQA:

- Findings regarding the program- and project-level environmental impacts of the SJRRP and the mitigation measures for those impacts identified in the PEIS/R and adopted as conditions of approval
- Findings related to cumulative environmental impacts of the SJRRP
- Findings regarding alternatives to the program and to the location of the SJRRP and the reasons that such alternatives have not been adopted
- A statement of overriding considerations determining that the benefits of the SJRRP outweigh the significant and unavoidable environmental impacts that will result and therefore justify approval of the SJRRP despite such impacts

DWR certifies that these findings are based on full appraisal of all viewpoints, including all comments received up to the date of adoption of these findings, concerning the environmental issues identified and discussed in the PEIS/R. DWR adopts these findings and the statement of overriding considerations for the approvals set forth in Section 3.0, "Statement of Overriding Considerations," of this document.

2.2 Environmental Review Process

2.2.1 Development of the Proposed SJRRP

As described in Chapter 1.0, "Introduction," of the Draft PEIS/R, a coalition of environmental groups, led by the Natural Resources Defense Council (NRDC), filed a

lawsuit in 1988, known as *NRDC, et al., v. Kirk Rodgers, et al.*, challenging the renewal of long-term water service contracts between the United States and Central Valley Project (CVP) Friant Division contractors. On September 13, 2006, after more than 18 years of litigation, the Settling Parties, including NRDC, Friant Water Authority (FWA), and the U.S. Departments of the Interior and Commerce, agreed on the terms and conditions of a Settlement subsequently approved by the U.S. Eastern District Court of California on October 23, 2006. The Act, included in Public Law 111-11 and signed into law on March 30, 2009, authorizes and directs the Secretary of the Interior (Secretary) to implement the Settlement. The Settlement establishes two primary goals:

- **Restoration Goal** – To restore and maintain fish populations in “good condition” in the main stem San Joaquin River below Friant Dam to the confluence of the Merced River, including naturally reproducing and self-sustaining populations of salmon and other fish.
- **Water Management Goal** – To reduce or avoid adverse water supply impacts on all of the Friant Division long-term contractors that may result from the Interim and Restoration flows provided for in the Settlement.

The Settlement and the Act authorize and direct specific physical and operational actions that could potentially directly or indirectly affect environmental conditions in the Central Valley. Areas potentially affected by Settlement actions include the San Joaquin River and associated flood bypass system, tributaries to the San Joaquin River, the Sacramento–San Joaquin Delta (Delta), and water service areas of the CVP and State Water Project (SWP), including the Friant Division. Settlement paragraphs 11 through 16 describe the physical and operational actions. Table 1-1 in Chapter 1, “Introduction,” of the Draft PEIS/R summarizes the level of analysis provided for actions identified in key Settlement paragraphs.

Formulation of a range of program alternatives for evaluation in the PEIS/R began with a review of Settlement provisions for achieving the restoration and water management goals. This was followed by preparing the purpose, need, and objectives; developing criteria for including actions in the program alternatives; defining planning and implementation constraints; and identifying related projects and opportunities associated with achieving the purpose and need. These steps were applied to actions identified in Settlement provisions and to comments received during the public scoping process, to identify a reasonable range of feasible alternatives to be addressed. As a result of this process, several potential actions were eliminated from consideration and the reasonable range of initial program alternatives was identified. This process and the alternatives eliminated from consideration are described in the SJRRP 2008 *Initial Program Alternatives Report*.

2.2.2 Alternatives

CEQA requires that an EIR describe and analyze the relative environmental impacts of alternatives to the proposed project and evaluate their comparative impacts and merits (see State CEQA Guidelines Section 15126.6(a-c)). The EIR must consider a range of reasonable alternatives that can feasibly attain most of the basic project objectives and

1 avoid or substantially lessen one or more significant impacts. Alternatives that would
2 impede to some degree the attainment of the project objectives or would be more costly
3 also may be considered.

4 The alternatives analysis must identify the potential alternatives and include sufficient
5 information about each to allow meaningful evaluation, analysis, and comparison with
6 the proposed project. The discussion must focus on potentially feasible alternatives that
7 can avoid or substantially reduce the significant impacts of the proposed project.

8 Qualitative and quantitative measures of alternative feasibility may include site
9 suitability, economic viability, availability of infrastructure, general plan consistency,
10 consistency or conflict with other plans or regulatory limitations, jurisdictional
11 boundaries, and whether the project applicant can reasonably acquire, control, or
12 otherwise have access to an alternative site. Similarly, if an alternative would cause one
13 or more significant impacts, in addition to those that would be caused by the project, the
14 significant impacts of the alternative must be discussed, but in less detail than the project
15 analysis.

16 As required by CEQA, the alternatives analysis must include evaluation of the no-project
17 alternative. “No project” is defined as “existing conditions at the time the notice of
18 preparation is published” as well as “what would be reasonably expected to occur in the
19 foreseeable future if the project were not approved, based on current plans and consistent
20 with available infrastructure and community services.” CEQA also requires that an EIR
21 identify one “environmentally superior alternative” from the range of reasonable
22 alternatives that are evaluated.

23 The PEIS/R evaluates a No-Action Alternative (the No-Project Alternative required
24 under CEQA) and six action alternatives to implement the restoration and water
25 management goals of the Settlement and meet the purpose, need, and objectives of the
26 proposed action. Although the alternatives have advantages and disadvantages, each is
27 considered potentially feasible for the purpose of analysis, based on relevant economic,
28 environmental, social, technological, and legal factors. The PEIS/R evaluated the
29 following action alternatives:

- 30 • Alternative A1: Reach 4B1 at 475 cfs, Delta Recapture
- 31 • Alternative A2: Reach 4B1 at 4,500 cfs, Delta Recapture
- 32 • Alternative B1: Reach 4B1 at 475 cfs, San Joaquin River Recapture
- 33 • Alternative B2: Reach 4B1 at 4,500 cfs, San Joaquin River Recapture
- 34 • Alternative C1: Reach 4B1 at 475 cfs, New Pumping Plant Recapture
- 35 • Alternative C2: Reach 4B1 at 4,500 cfs, New Pumping Plant Recapture

1 Each action alternative includes the actions required in the Settlement, as shown in Table
2 2-1 herein (and Table 2-1 in Chapter 2, “Description of Alternatives,” page 2-5, of the
3 Draft PEIS/R).

4 The project-level actions are the same for all six action alternatives, and the action
5 alternatives differ in two program-level ways. The first is the amount of flow that is
6 routed through Reach 4B1 (at least 475 cubic feet per second (cfs) or at least 4,500 cfs).
7 The second is the way that water is recaptured (Delta only or Delta plus existing San
8 Joaquin River diversions without or with new pumping infrastructure below the Merced
9 River).

10 Channel conveyance limitations in river reaches other than Reach 4B1 would need to be
11 addressed and implemented before flows of 475 cfs or 4,500 cfs could be released under
12 any of the action alternatives. The Settlement specifies that full Restoration Flows will be
13 limited to flow levels that can be accommodated by then-existing channel capacities.
14 Substantial information has been collected since the signing of the Settlement as part of
15 development of the Draft PEIS/R, implementing the Interim Flows, and as part of
16 California FloodSAFE initiative and other programs. This new information indicates that
17 current channel capacities in the Restoration Area may not be sufficient to convey full
18 Restoration Flows.

19 Additional information is needed to better understand the integrity of banks and levees
20 throughout the Restoration Area. Collecting and analyzing this information may take
21 years to complete. The action alternatives include measures that would achieve the
22 following objectives: (1) commit Reclamation to implementing actions that will meet
23 performance standards that minimize increases in flood risk as a result of Interim or
24 Restoration flows, (2) limit the release and conveyance of Interim and Restoration flows
25 to those flows that will remain in-channel until adequate data are available to apply the
26 performance standards and until the performance standards are satisfied, and (3) enable
27 the Settlement to be implemented in coordination with other ongoing and future actions
28 outside of the Settlement that could address channel capacity issues identified in the
29 Settlement or through the SJRRP or other programs. Therefore, it may take longer to
30 achieve full Restoration Flows than was anticipated in the Settlement. It is possible that
31 the Settlement could be fully implemented in a manner consistent with the Act, and the
32 purpose of the project thereby achieved, without release of the maximum Restoration
33 Flows.

34 Chapter 2.0, “Description of Alternatives,” pages 2-1 through 2-96, of the Draft PEIS/R
35 provides a detailed discussion and a summary comparison of program-level and project-
36 level actions included in the six action alternatives. The following discussion briefly
37 summarizes the No-Action (No-Project) Alternative and the project-level and program-
38 level actions common to all of the action alternatives and additional program-level
39 restoration and water management actions specific to each action alternative as shown in
40 Table 2-1 herein.

41

1
2

**Table 2-1.
Actions Included under Action Alternatives**

Level of NEPA/CEQA Compliance	Actions ¹		Action Alternative					
			A1	A2	B1	B2	C1	C2
Project-Level	Reoperate Friant Dam and downstream flow control structures to route Interim and Restoration flows		✓	✓	✓	✓	✓	✓
	Recapture Interim and Restoration flows in the Restoration Area		✓	✓	✓	✓	✓	✓
	Recapture Interim and Restoration flows at existing CVP and SWP facilities in the Delta		✓	✓	✓	✓	✓	✓
Program-Level	Common Restoration actions ²		✓	✓	✓	✓	✓	✓
	Actions in Reach 4B1 to provide at least:	475 cfs capacity	✓	✓	✓	✓	✓	✓
		4,500 cfs capacity with integrated floodplain habitat		✓		✓		✓
	Recapture Interim and Restoration flows on the San Joaquin River downstream from the Merced River at:	Existing facilities on the San Joaquin River			✓	✓	✓	✓
		New pumping infrastructure on the San Joaquin River					✓	✓
	Recirculation of recaptured Interim and Restoration flows		✓	✓	✓	✓	✓	✓

Notes:

¹ All alternatives also include the Physical Monitoring and Management Plan and the Conservation Strategy, which include both project- and program-level actions intended to guide implementation of the Stipulation of Settlement.

² Common Restoration actions are physical actions to achieve the restoration goal that are common to all action alternatives and are addressed at a program level of detail.

Key:

CEQA = California Environmental Quality Act

cfs = cubic feet per second

CVP = Central Valley Project

Delta = Sacramento–San Joaquin Delta

NEPA = National Environmental Policy Act

PEIS/R = Program Environmental Impact Statement/Report

SWP = State Water Project

3 All action alternatives also include the Physical Monitoring and Management Plan and
 4 the Conservation Strategy, both of which are discussed in detail in Chapter 2.0,
 5 “Descriptions of Alternatives,” of the Draft PEIS/R. The Physical Monitoring and
 6 Management Plan provides guidelines for observing and adjusting to changes in
 7 conditions regarding flow, seepage, channel capacity, propagation of native vegetation,
 8 and suitability of spawning gravel. The Conservation Strategy consists of conservation
 9 measures necessary to provide a net increase in the extent and quality of riparian and
 10 wetland habitats in the Restoration Area, to avoid reducing the long-term viability of
 11 sensitive species, and to be consistent with adopted conservation plans. For individual
 12 project- and program-level actions under each of the action alternatives, the applicable,
 13 feasible measures would guide development of action-specific conservation strategies
 14 (see Table 2-7 in Chapter 2.0, “Description of Alternatives,” pages 2-55 through 2-79, of
 15 the Draft PEIS/R).

1 **No-Action (No-Project) Alternative**

2 The No-Action (No-Project) Alternative reflects projected conditions in 2030 if the
3 Settlement is not implemented. The No-Action (No-Project) Alternative includes existing
4 facilities, conditions, land uses, and reasonably foreseeable actions that are expected to
5 occur in the study area by 2030. Reasonably foreseeable actions include actions with
6 current authorization, complete funding for design and construction, and complete
7 environmental permitting and compliance (see Table 2-3 in Chapter 2.0, “Description of
8 Alternatives,” pages 2-12 through 2-13, of the Draft PEIS/R) when the Notice of
9 Preparation (NOP) for the PEIS/R was published (August 22, 2007). Under the No-
10 Action (No-Project) Alternative, Reclamation would continue to release a base flow from
11 Friant Dam to meet existing holding contract obligations to maintain a 5 cfs flow at
12 Gravelly Ford.

13 The No-Action (No-Project) Alternative would not include implementing the Settlement.
14 Although the specific actions regarding *NRDC, et al., v. Kirk Rodgers, et al.* that would
15 be taken under the No-Action (No-Project) Alternative are too speculative for meaningful
16 consideration and cannot be defined at this time.

17 **Alternative A1—Reach 4B1 at 475 cfs, Delta Recapture**

18 Alternative A1 includes reoperating Friant Dam and a range of actions to achieve the
19 Restoration and Water Management goals (see Figure 2-8 in Chapter 2.0, “Description of
20 Alternatives,” page 2-35, of the Draft PEIS/R). Under Alternative A1, Reach 4B1 would
21 convey at least 475 cfs, and the Eastside and Mariposa bypasses would convey any
22 remaining Interim and Restoration flows (see Figure 2-8 in Chapter 2.0, “Description of
23 Alternatives,” page 2-35, of the Draft PEIS/R). Alternative A1 includes the potential for
24 recapture of Interim and Restoration flows in the Restoration Area and in the Delta using
25 existing facilities, and the potential for recirculation of all recaptured Interim and
26 Restoration flows. The Physical Monitoring and Management Plan and Conservation
27 Strategy are included in Alternative A1.

28 **Alternative A2—Reach 4B1 at 4,500 cfs, Delta Recapture**

29 Project-level and program-level actions in Alternative A2 are identical to similar actions
30 in Alternative A1, with the exception of increased flows to 4,500 cfs. Alternative A2
31 includes all of the modifications to Reach 4B1 described in Alternative A1, plus
32 additional modifications needed to increase the capacity of Reach 4B1 to at least 4,500
33 cfs with integrated floodplain habitat, as specified in Paragraph 11(b)(1) of the Settlement
34 (see Figure 2-9 in Chapter 2, “Description of Alternatives,” page 2-81, of the Draft
35 PEIS/R). These modifications to Reach 4B1 would include modifications to the San
36 Joaquin River Headgates at the upstream end of Reach 4B1, to provide for fish passage
37 and enable flow routing of between 500 cfs and 4,500 cfs into Reach 4B1, and related
38 modifications to the Sand Slough Control Structure, as stipulated in Paragraphs 11(a)(4)
39 and 11(a)(5) of the Settlement, respectively.

40 After modifications are completed to convey at least 4,500 cfs through Reach 4B1, all
41 Interim and Restoration flows would be routed through Reach 4B1. Modifications to and
42 operations of Reach 4B1, the San Joaquin River Headgates, and the Sand Slough Control
43 Structure to convey at least 4,500 cfs through Reach 4B1 in Alternative A2 are the same

1 in Alternatives B2 and C2, as shown in Figure 2-8 in Chapter 2.0, “Descriptions of
2 Alternatives,” page 2-35, of the Draft PEIS/R, and therefore are not discussed further in
3 the presentation of those alternatives.

4 Although the exact extent of potential floodplain habitat through Reach 4B1 has not been
5 identified, floodplains in Reach 4B1 could provide substantial benefits for salmon and
6 other native fish. Therefore, Alternative A2 includes modifications to Reach 4B1 that
7 bracket a reasonable range of potential implementation. New levees would be constructed
8 in Reach 4B1 to provide new floodplain habitat, ranging in average width from about
9 1,900 feet to 4,800 feet, and levee heights at an average of 4 feet to 5 feet, depending on
10 the characteristics of the floodplain habitat. Specific levee alignments, modifications, and
11 floodplain characteristics would be determined through a project-specific study that
12 would consider a variety of factors, as specified in the Act.

13 ***Alternative B1—Reach 4B1 at 475 cfs, San Joaquin River Recapture***

14 Project-level actions in Alternative B1 are identical to project-level actions in
15 Alternatives A1 and A2, and program-level actions in Alternative B1 include all of the
16 program-level actions in Alternative A1, plus additional water management actions to
17 recapture Interim and Restoration flows using existing facilities along the San Joaquin
18 River between the Merced River and the Delta.

19 Interim and Restoration flows from the San Joaquin River below the Merced River
20 confluence would be recaptured at existing pumping facilities, owned and operated by
21 CVP contractors who possess San Joaquin River water rights (see Figure 2-10 in Chapter
22 2.0, “Descriptions of Alternatives,” page 2-83, of the Draft PEIS/R). These actions could
23 include potential in-district modifications to existing off-river facilities, to facilitate
24 routing or storage of water, such as expanding existing canals or constructing lift stations
25 on existing canals. Recaptured Interim and Restoration flows from the San Joaquin River
26 would be exchanged for CVP Delta water supplies scheduled for delivery to these CVP
27 contractors. Implementing recapture at existing facilities on the San Joaquin River would
28 require agreements with San Joaquin River water right holders to allow pumping of
29 Interim and Restoration flows in exchange for delivery of CVP water from the Delta.
30 Recapture of Interim or Restoration flows at existing facilities would occur only if doing
31 so would not adversely affect downstream water quality or fisheries. To the extent they
32 were available, CVP storage and conveyance facilities would be used to convey the
33 exchanged water to the Friant Division. As a result of these diversions along the San
34 Joaquin River, the portion of the Restoration Flows reaching the Delta under Alternative
35 B1 would be less than under Alternative A1.

36 Water supply recaptured through exchange with San Joaquin River water right holders
37 available to Friant Division long-term contractors would range from zero to the total
38 amount of recaptured Interim and Restoration flows. Recapture would be limited by
39 conveyance capacity and conditions identified by exchanging entities, such as water
40 quality requirements for land application or other potential concerns.

1 This alternative also would require exchange and/or conveyance agreements for
2 recirculating recaptured Interim and Restoration flows at Delta export pumping facilities,
3 as described under Alternative A1.

4 ***Alternative B2—Reach 4B1 at 4,500 cfs, San Joaquin River Recapture***

5 Project-level actions in Alternative B2 are identical to project-level actions in
6 Alternatives A1, A2, and B1. Program-level actions in Alternative B2 include all of the
7 program-level actions in Alternative B1, plus additional Restoration actions in Reach 4B1
8 and the bypass system to increase the capacity of Reach 4B1 to at least 4,500 cfs, as
9 described for Alternative A2 (see Figure 2-11 in Chapter 2.0, “Descriptions of
10 Alternatives,” 2-85, of the Draft PEIS/R). Under this alternative, the Eastside Bypass
11 would not convey Interim or Restoration flows after completion of Reach 4B1 channel
12 modifications.

13 ***Alternative C1—Reach 4B1 at 475 cfs, New Pumping Plant Recapture***

14 Project-level actions in Alternative C1 are identical to project-level actions in
15 Alternatives A1, A2, B1, and B2. Program-level actions in Alternative C1 include all of
16 the program-level actions in Alternative B1, plus additional water management actions
17 for constructing and operating new infrastructure to facilitate recapture of Interim and
18 Restoration flows on the San Joaquin River below the confluence of the Merced River, as
19 described below.

20 In addition to water exchanges with existing water right holders along the San Joaquin
21 River, Alternative C1 also includes constructing new infrastructure to increase pumping
22 capacity along the San Joaquin River below the Merced River confluence for the direct
23 recapture of Interim and Restoration flows, and infrastructure to convey recaptured flows
24 to the Delta–Mendota Canal (DMC) or California Aqueduct (see Figure 2-12 in Chapter
25 2.0, “Descriptions of Alternatives,” page 2-87, of the Draft PEIS/R). Construction of new
26 pumping capacity would include adding a new pumping plant on the San Joaquin River
27 or enlarging the pumping capacity of an existing facility on the San Joaquin River. This
28 action is analyzed at a program level in the PEIS/R. Before completion of new pumping
29 capacity on the river, recapture would occur in the Delta, as described under Alternatives
30 A1 and A2, and/or at existing facilities along the river, as described under Alternatives
31 B1 and B2. After construction of new pumping capacity, a smaller portion of Restoration
32 Flows would reach the Delta under Alternative C1 than under Alternative B1 because of
33 the additional recapture that would be possible along the San Joaquin River at the new
34 pumping infrastructure. A smaller portion of Interim and Restoration Flows would be
35 available for recapture through exchange at existing facilities under Alternative C1 than
36 under Alternative B1 because of recapture of flows at the new pumping infrastructure.

37 The new pumping infrastructure could have a capacity up to 1,000 cfs and would be
38 located on the San Joaquin River downstream from the Merced River confluence and
39 upstream from Vernalis. This river reach includes a range of anticipated flows and water
40 quality conditions that would affect design and operation of the facility; therefore, the
41 location and capacity of the pumping infrastructure would be determined as part of a
42 subsequent, site-specific study. New pumping infrastructure also would include
43 infrastructure to convey recaptured flows to the DMC or California Aqueduct. Recapture

1 of Interim or Restoration flows at new infrastructure of existing facilities would occur
2 only if doing so would not adversely affect downstream water quality of fisheries,
3 consistent with the requirements of Paragraph 16(a)(1) of the Settlement. To the extent
4 they were available, existing south-of-Delta CVP and SWP storage and conveyance
5 facilities would be used to recirculate recaptured water to the Friant Division, as
6 described for Alternative B1.

7 The availability of water would be limited to direct recapture of Interim and Restoration
8 flows in the San Joaquin River and the Delta. Recaptured water available to Friant
9 Division long-term contractors would range from zero to the total amount of recaptured
10 Interim and Restoration flows, and would be limited by conveyance capacity and water
11 quality requirements for introducing recaptured water to the DMC and California
12 Aqueduct. The conveyance of water would be limited by physical pumping plant
13 capacity, permit limitations for pumping from the San Joaquin River, and available
14 conveyance capacity in the DMC and the California Aqueduct. New water right permits
15 or modifications to existing permits would be needed to divert water from the San
16 Joaquin River at the new pumping infrastructure.

17 ***Alternative C2—Reach 4B1 at 4,500 cfs, New Pumping Plant Recapture***
18 Project-level actions in Alternative C2 are identical to project-level actions in
19 Alternatives A1, A2, B1, B2, and C1. Program-level actions in Alternative C2 include all
20 of the program-level actions in Alternative C1, plus additional Restoration actions in
21 Reach 4B1 and the bypass system, to increase the capacity of Reach 4B1 to at least 4,500
22 cfs, as described for Alternative A2 (see Figure 2-13 in Chapter 2.0, “Descriptions of
23 Alternatives,” page 2-89, of the Draft PEIS/R).

24 **2.2.3 Preparation and Public Review of the PEIS/R**

25 Pursuant to the requirements of State CEQA Guidelines Section 15082, on August 22,
26 2007, DWR issued a NOP announcing the intended preparation of the PEIS/R and
27 describing its proposed scope. The NOP was circulated to public agencies and interested
28 groups and individuals for a 31-day review period that ended September 26, 2007.

29 The public comment period for the Draft PEIS/R began April 22, 2011, and ended
30 September 21, 2011. On April 22, 2011, a Notice of Completion and the requisite number
31 of copies of the Draft PEIS/R were provided to the State Clearinghouse for distribution to
32 interested state agencies. A Notice of Availability (NOA), including information on
33 where the Draft PEIS/R could be reviewed, also was filed in Contra Costa, Fresno, Kern,
34 Madera, Merced, Sacramento, San Joaquin, Stanislaus, Tulare, and Yolo counties,
35 California; and was published in 13 newspapers throughout the Central Valley on or near
36 April 22, 2011. The Draft PEIS/R also was made available online at the SJRRP Web site
37 (www.restoresjr.net); Reclamation’s Web site ([http://www.usbr.gov/mp/nepa/nepa_](http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=2940)
38 [projdetails.cfm?Project_ID=2940](http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=2940)); at libraries in Contra Costa, Fresno, Kern, Madera,
39 Merced, Sacramento, San Joaquin, Stanislaus, Tulare, and Yolo counties; and at DWR’s
40 Fresno office. More than 500 copies on compact disc (CD) and approximately 55 hard
41 copies of the Draft PEIS/R were distributed to those public agencies that have jurisdiction
42 by law with respect to the project or which exercise authority over resources that may be
43 affected by the project, and to other interested parties and agencies as required by law.

1 Originally, a 45-day public comment period for the Draft PEIS/R was conducted between
2 April 22, 2011 and June 21, 2011. The public comment period was extended at the
3 request of stakeholders for an additional 3 months beyond the initial comment due date of
4 June 21, 2011, closing on September 21, 2011.

5 Although not required under CEQA, four public hearings were held to receive public
6 testimony on the Draft PEIS/R: two on May 24, 2011 in the cities of Visalia and Fresno;
7 one on May 25, 2011 in the City of Los Banos; and one on May 26, 2011 in the City of
8 Sacramento. The public hearings were recorded, and transcripts were made of oral public
9 testimony received at the public hearings. Written comments also were received during
10 the public hearings.

11 Approximately 11 persons provided oral testimony on the Draft PEIS/R at the public
12 hearings. In addition, approximately 80 letters and e-mails were received during the
13 public comment period, including correspondence from federal, state, and local agencies.
14 Responses to comments on the Draft PEIS/R are provided in Chapter 3.0, "Individual
15 Comments and Responses," of the Final PEIS/R.

16 The PEIS/R contains all comments received during the public comment period, including
17 transcripts of the oral testimony from the public hearings, together with written responses
18 to all written and oral comments, prepared in accordance with CEQA, the State CEQA
19 Guidelines, and DWR's procedures for implementing CEQA. DWR finds and determines
20 that the PEIS/R provides adequate, good-faith, and reasoned responses to all comments
21 raising significant environmental issues, consistent with State CEQA Guidelines Section
22 15088.

23 **2.2.4 Absence of Significant New Information**

24 State CEQA Guidelines Section 15088.5 requires a lead agency to recirculate an EIR for
25 further review and comment when significant new information is added to the EIR after
26 public notice is given of the availability of the draft EIR but before certification. New
27 information added to an EIR is not "significant" unless the EIR is changed in a way that
28 deprives the public of a meaningful opportunity to comment on a substantial adverse
29 environmental effect of the project or a feasible way to mitigate or avoid such an effect
30 that the project proponent declines to implement. The State CEQA Guidelines provide
31 examples of significant new information under this standard. Recirculation is not required
32 where the new information added to the EIR merely clarifies, amplifies, or makes
33 insignificant modifications in an adequate EIR.

34 DWR recognizes that the SJRRP PEIS/R incorporates information obtained by DWR
35 since the Draft PEIS/R was completed, and contains additions, clarifications,
36 modifications, and other changes as described below. DWR finds that these changes are
37 of a minor, non-substantive nature; do not meet the definition of "significant new
38 information" contained in State CEQA Guidelines Section 15088.5; and, thus, do not
39 trigger a requirement for recirculation of the PEIS/R.

40 Based on the foregoing, and having reviewed the information contained in the PEIS/R
41 and the record of proceedings, including the comments on the Draft PEIS/R and the

1 responses thereto and the information summarized below, DWR hereby finds that no
2 significant new information has been added to the PEIS/R since public notice was given
3 of the availability of the Draft PEIS/R that would require recirculation under State CEQA
4 Guidelines Section 15088.5. The new information added to the PEIS/R, including the
5 subsections below, does not involve disclosure of any new or more severe significant
6 impacts, does not identify any new feasible alternatives or mitigation measures that
7 would clearly lessen significant impacts that DWR declines to adopt, and does not
8 indicate that the Draft PEIS/R was in any way inadequate or conclusory.

9 **Central Valley Steelhead Monitoring Plan**

10 Appendix B, “Central Valley Steelhead (*Oncorhynchus mykiss*) Monitoring Plan for the
11 San Joaquin River Restoration Program,” to the Final PEIS/R was recently developed and
12 is currently being implemented by the National Marine Fisheries Service (NMFS) as part
13 of the Water Year 2012 Instream Flows Program. The monitoring plan provides
14 additional information that was not available at the time the Draft PEIS/R was publically
15 released, to provide the most current information possible in the PEIS/R. Reclamation
16 and DWR have added the monitoring plan to the Final PEIS/R. Appendix B to the Final
17 PEIS/R contains further details.

18 **CVP/SWP Long-Term Operations Sensitivity Analysis**

19 Appendix C, “CVP/SWP Long-Term Operations Sensitivity Analyses,” to the Final
20 PEIS/R, was included to evaluate the action alternatives under a range of potential
21 implementations of the reasonable and prudent alternatives (RPAs), under the U.S. Fish
22 and Wildlife Service (USFWS) 2008 *Biological Opinion on the Coordinated Operations*
23 *of the CVP and SWP* (2008 USFWS CVP/SWP Operations BO) and the NMFS 2009
24 *Final Biological and Conference Opinion on the Long-Term Operations of the CVP and*
25 *SWP* (2009 NMFS CVP/SWP Operations BO). The sensitivity analyses results
26 demonstrate that the overall impact mechanisms and significance determinations
27 presented in the Draft PEIS/R would not change under a baseline that includes the
28 aforementioned BOs. The new information added to the PEIS/R through this sensitivity
29 analysis merely clarifies, amplifies, and makes insignificant modifications to the analysis
30 contained in the Draft PEIS/R. The sensitivity analyses also provide information in
31 response to several commenter questions regarding potential differences in results by
32 using the two different sets of operational conditions. Appendix C to the Final PEIS/R
33 contains further details.

34 **Other Changes**

35 Various insignificant modifications have been made to the text, tables, and figures of the
36 Draft PEIS/R, as set forth in Chapter 4.0, “Errata,” of the Final PEIS/R. These minor
37 changes include corrections to typographical errors, minor adjustments to the data, and
38 additions of or minor changes to certain phrases to improve readability.

39 **2.2.5 Administrative Record**

40 Pursuant to State CEQA Guidelines Section 15091(e), the custodian and location of the
41 documents that make up the administrative record is California Department of Water
42 Resources, South Central Region Office, 3374 East Shields Ave., Fresno, CA 93726.

2.3 Findings Required Under CEQA

The following section summarizes the environmental impacts of the project that are identified in the PEIS/R, and includes DWR's findings as to those impacts, and related to project alternatives, as required by CEQA and the State CEQA Guidelines. As stated in the Final PEIS/R, DWR has determined that it will adopt Alternative C1 (Reach 4B1 at 475 cfs, New Pumping Plant Recapture) as the project to be implemented. Therefore, the findings below apply to Alternative C1 as evaluated in the PEIS/R. The findings provide the written analysis and conclusions of DWR regarding the environmental impacts of the project, including cumulative impacts; mitigation measures proposed by the PEIS/R and adopted by DWR as conditions of approval; and alternatives to the project. These findings summarize the environmental determinations of the PEIS/R regarding project impacts before and after mitigation and do not attempt to describe the full analysis of each environmental impact contained in the PEIS/R. Instead, these findings identify each impact, describe the applicable mitigation measures verbatim as identified in the PEIS/R and adopted by DWR, and present DWR's findings on the significance of each impact after imposition of the adopted mitigation measures. A full explanation of these environmental findings and conclusions can be found in the PEIS/R, and these findings hereby incorporate by reference the discussion and analysis in the PEIS/R, supporting the PEIS/R's determinations regarding mitigation measures and the project's impacts. In making these findings, DWR ratifies, adopts, and incorporates the analysis and explanations in the PEIS/R into these findings, and ratifies, adopts, and incorporates into these findings the determinations and conclusions of the PEIS/R relating to mitigation measures and environmental impacts, except to the extent that any such determinations and conclusions are specifically and expressly modified by these findings.

As set forth below, DWR adopts and incorporates as conditions of approval the mitigation measures set forth in these findings, to reduce or avoid the potentially significant and significant impacts of the project. In adopting these mitigation measures, DWR intends to adopt each of the mitigation measures proposed in the PEIS/R. Accordingly, in the event that a mitigation measure recommended in the PEIS/R has inadvertently been omitted from these findings, said mitigation measure is hereby adopted and incorporated into the findings below by reference. In addition, in the event that the language of the mitigation measures set forth below fails to accurately reflect the mitigation measures in the PEIS/R because of a clerical error, the language of the mitigation measure as set forth in the PEIS/R will control, unless the language of the mitigation measure has been specifically and expressly modified by these findings.

DWR is the CEQA lead agency in preparing the PEIS/R. All project-level actions addressed in the PEIS/R are actions to be undertaken by Reclamation, and the effects of these actions are the sole responsibility of Reclamation. DWR is not taking any discretionary action for the project-level actions analyzed in the PEIS/R. Some activities will be undertaken by other entities, such as Reclamation, USFWS, NMFS, the California Department of Fish and Game (DFG), and others. For purposes of these findings, the term "project proponent" is used to refer to the agency undertaking the activity (DWR, Reclamation, or another entity) as the context requires. For those activities within the responsibility and jurisdiction of another public agency, the mitigation measures

1 described below have been, or can and should be, adopted by that other agency, as
 2 applicable and appropriate. With respect to the additional mitigation proposals contained
 3 in comments that were not accepted by the PEIS/R, DWR hereby adopts and incorporates
 4 by reference the reasons set forth in the response to comments contained in the PEIS/R as
 5 its grounds for rejecting adoption of these mitigation measures.

6 **2.3.1 Findings Related to Program- and Project-Level Impacts**

7 ***Less-than-Significant Impacts***

8 For the reasons stated in the PEIS/R, DWR finds that all impacts listed in Table 2-2,
 9 “Summary of Less-than-Significant Impacts in the SJRRP PEIS/R,” would be less than
 10 significant without mitigation and, therefore, no mitigation measures are required.
 11 Because these impacts would not exceed the established thresholds of significance in the
 12 PEIS/R and, therefore, would not be significant environment effects, and these
 13 conclusions are supported by substantial evidence in the record, no further finding is
 14 required pursuant to State CEQA Guidelines Section 15091.

15 **Table 2-2.**
 16 **Summary of Less-than-Significant Impacts in the SJRRP PEIS/R**

Air Quality: Program-Level
AIR-2: Operations-Related Emissions of Criteria Air Pollutants and Precursors
AIR-3: Exposure of Sensitive Receptors to Substantial Concentrations of Toxic Air Contaminants
AIR-4: Exposure of Sensitive Receptors to Odor Emissions
Air Quality: Project-Level
AIR-6: Operations-Related Emissions of Criteria Air Pollutants and Precursors
AIR-7: Exposure of Sensitive Receptors to Substantial Concentrations of Toxic Air Contaminants
AIR-8: Exposure of Sensitive Receptors to Odor Emissions
Biological Resources—Fisheries: Program-Level
FSH-1: Changes in Water Temperatures in the San Joaquin River between Friant Dam and the Merced River
FSH-2: Changes in Pollutant Discharge in the San Joaquin River between Friant Dam and the Merced River
FSH-3: Changes in Sediment Discharge and Turbidity in the San Joaquin River between Friant Dam and the Merced River
FSH-4: Construction-Related Changes in Habitat Conditions in the San Joaquin River between Friant Dam and the Merced River
FSH-5: Displacement from Preferred or Required Habitat, Injury, or Mortality in the San Joaquin River between Friant Dam and the Merced River
FSH-6: Changes in Habitat Conditions in the San Joaquin River between Friant Dam and the Merced River
FSH-7: Changes in Diversions and Entrainment in the San Joaquin River between Friant Dam and the Merced River
FSH-8: Changes in Predation Levels in the San Joaquin River between Friant Dam and the Merced River
FSH-9: Changes in Food Web Support in the San Joaquin River between Friant Dam and the Merced River
FSH-10: Effects to Fall-Run Chinook Salmon from Hybridization Resulting from Reintroduction of Spring-Run Chinook Salmon to the Restoration Area
FSH-11: Effects of Disease on Fisheries in the San Joaquin River between the Merced River and the Delta

Table 2-2.
Summary of Less-than-Significant Impacts in the SJRRP PEIS/R (contd.)

FSH-12: Changes in Diversions and Entrainment in the San Joaquin River between the Merced River and the Delta
FSH-13: Displacement from Preferred or Required Habitat, Injury, or Mortality in the San Joaquin River between Merced River and the Delta
FSH-14: Changes in Water Temperatures in the San Joaquin River between the Merced River and the Delta
Biological Resources—Fisheries: Project-Level
FSH-15: Changes in Water Temperatures and Dissolved Oxygen Concentrations in the San Joaquin River Upstream from Friant Dam
FSH-17: Changes in Sediment Discharge and Turbidity in the San Joaquin River Upstream from Friant Dam
FSH-18: Changes in Fish Habitat Conditions in the San Joaquin River Upstream from Friant Dam
FSH-19: Changes in Diversions and Entrainment in the San Joaquin River Upstream from Friant Dam
FSH-20: Changes in Predation Levels in the San Joaquin River Upstream from Friant Dam
FSH-21: Changes in Food Web Support in the San Joaquin River Upstream from Friant Dam
FSH-22: Changes in Water Temperatures and Dissolved Oxygen Concentrations in the San Joaquin River between Friant Dam and the Merced River
FSH-23: Changes in Pollutant Discharge and Mobilization in the San Joaquin River between Friant Dam and the Merced River
FSH-24: Changes in Sediment Discharge and Turbidity in the San Joaquin River between Friant Dam and the Merced River
FSH-25: Changes in Fish Habitat Conditions in the San Joaquin River between Friant Dam and the Merced River
FSH-26: Changes in Diversions and Entrainment in the San Joaquin River between Friant Dam and the Merced River
FSH-27: Changes in Predation Levels in the San Joaquin River between Friant Dam and the Merced River
FSH-28: Changes in Food Web Support in the San Joaquin River between Friant Dam and the Merced River
FSH-29: Effects of Disease on Fisheries in the San Joaquin River between the Merced River and the Delta
FSH-30: Changes in Chinook Salmon and Steelhead Habitat in the Merced, Tuolumne, and Stanislaus Rivers
FSH-31: Changes in Water Temperatures and Dissolved Oxygen Concentrations in the Delta
FSH-32: Changes in Pollutant Discharge and Mobilization in the Delta
FSH-33: Changes in Sediment Discharge and Turbidity in the Delta
FSH-34: Changes in Fish Habitat Conditions in the Delta
FSH-35: Changes in Diversions and Entrainment in the Delta
FSH-36: Changes in Predation Levels in the Delta
FSH-37: Changes in Food Web Support in the Delta
FSH-38: Salinity Changes in the Delta
FSH-39: Changes to Delta Inflow and Flow Patterns in the Delta
Biological Resources—Vegetation and Wildlife: Program-Level
VEG-1: Substantially Alter Riparian Habitat and Other Sensitive Communities in the Restoration Area
VEG-2: Fill, Fragment, Isolate, Divert, or Substantially Alter Jurisdictional Waters of the United States in the Restoration Area
VEG-3: Facilitate Increase in Distribution and Abundance of Invasive Plants in the Restoration Area

**Table 2-2.
Summary of Less-than-Significant Impacts in the SJRRP PEIS/R (contd.)**

VEG-4: Substantially Affect Special-Status Plant Species in the Restoration Area
VEG-5: Substantially Reduce Habitat or Populations of Special-Status Animals in the Restoration Area
VEG-6: Substantially Alter Designated Critical Habitat in the Restoration Area
VEG-7: Conflict with Adopted Conservation Plans in the Restoration Area
VEG-8: Substantially Alter Riparian Habitat and Other Sensitive Communities between the Merced River and the Delta
VEG-9: Fill, Fragment, Isolate, Divert, or Substantially Alter Jurisdictional Waters of the United States between the Merced River and the Delta
VEG-10: Facilitate Increase in Distribution and Abundance of Invasive Plants between the Merced River and the Delta
VEG-11: Substantially Alter Special-Status Plant Species between the Merced River and the Delta
VEG-12: Substantially Reduce Habitat or Populations of Special-Status Animals between the Merced River and the Delta
VEG-13: Substantially Alter Designated Critical Habitat between the Merced River and the Delta
VEG-14: Conflict with Adopted Conservation Plans between the Merced River and the Delta
Biological Resources—Vegetation and Wildlife: Project-Level
VEG-15: Effects of Surface Water Fluctuation on Biological Resources Upstream from Friant Dam
VEG-16: Substantially Alter Riparian Habitat and Other Sensitive Communities in the Restoration Area
VEG-17: Fill, Fragment, Isolate, Divert, or Substantially Alter Jurisdictional Waters of the United States in the Restoration Area
VEG-18: Facilitate Increase in Distribution and Abundance of Invasive Plants in Sensitive Natural Communities in the Restoration Area
VEG-19: Substantially Affect Delta Button-Celery and Other Special-Status Plant Species in the Restoration Area
VEG-20: Substantially Reduce Habitat or Populations of Special-Status Animal Species in the Restoration Area
VEG-21: Substantially Alter Designated Critical Habitat in the Restoration Area
VEG-22: Conflict with Provisions of Adopted Habitat Conservation Plans, Natural Community Conservation Plans, and Other Approved Local, Regional, or State Conservation Plans in the Restoration Area
VEG-23: Substantially Affect Special-Status Species, Sensitive Communities, Jurisdictional Waters of the United States, and Adopted Conservation Plans Between the Merced River and the Delta
VEG-24: Substantially Affect Special-Status Species, Sensitive Communities, Jurisdictional Waters of the United States, and Adopted Conservation Plans in the Delta
VEG-25: Substantially Affect Special-Status Species, Sensitive Communities, Jurisdictional Waters of the United States, and Adopted Conservation Plans in the CVP/SWP Water Service Areas
Climate Change: Program-Level
CLM-2: Operational Emissions of GHGs
Geology and Soils: Program-Level
GEO-2: Potential Loss of Availability of a Known Mineral Resource of Value
Geology and Soils: Project-Level
GEO-3: Potential Localized Soil Erosion, Sedimentation, and Inadvertent Permanent Soil Loss

**Table 2-2.
Summary of Less-than-Significant Impacts in the SJRRP PEIS/R (contd.)**

GEO-4: Potential Increase in Channel Erosion, Sediment Transport, and Meander Migration from San Joaquin River Flows
GEO-5: Potential Loss of Availability of a Known Mineral Resource of Value
Hydrology—Flood Management: Program-Level
FLD-2: Substantially Reduce Opportunities for Levee and Flood System Facilities Inspection and Maintenance
FLD-3: Substantially Alter the Existing Drainage Pattern of the Site or Area, including through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner which Would Result in Flooding On- or Off-Site
FLD-4: Placement of Structures Within a 100-Year Flood Hazard Area Structures that Would Impede or Redirect Flood Flows
FLD-5: Placement of Housing within a 100-Year Flood Hazard Area, as Mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or Other Flood Hazard Delineation Map
Hydrology—Flood Management: Project-Level
FLD-6: Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Flooding, including Flooding as a Result of the Failure of a Levee or Dam
FLD-7: Substantially Reduce Opportunities for Levee and Flood System Facilities Inspection and Maintenance
FLD-10: Placement of Housing within a 100-Year Flood Hazard Area, as Mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or Other Flood Hazard Delineation Map
Hydrology—Groundwater: Project-Level
GRW-2: Changes in Groundwater Levels along the San Joaquin River from Friant Dam to the Delta
GRW-3: Changes in Groundwater Quality along the San Joaquin River from Friant Dam to the Delta
Hydrology—Surface Water Supplies and Facilities Operations: Project-Level
SWS-2: Change in Water Levels in the Old River near the Tracy Road Bridge
SWS-3: Change in Water Levels in the Grant Line Canal near the Grant Line Canal Barrier
SWS-4: Change in Water Levels in the Middle River near the Howard Road Bridge
SWS-5: Change in Recurrence of Delta Excess Conditions
Hydrology—Surface Water Quality: Program-Level
SWQ-2: Long-Term Effects on Water Quality that Cause Violations of Existing Water Quality Standards or Adversely Affect Beneficial Uses in the CVP/SWP Water Service Areas
SWQ-3: Long-Term Effects on Water Quality that Cause Violations of Existing Water Quality Standards or Adversely Affect Beneficial Uses in Millerton Lake
Hydrology—Surface Water Quality: Project-Level
SWQ-4: Long-Term Effects on Water Quality that Cause Violations of Existing Water Quality Standards or Adversely Affect Beneficial Uses in the San Joaquin River from Friant Dam to the Merced River
SWQ-5: Long-Term Effects on Water Quality that Cause Violations of Existing Water Quality Standards or Adversely Affect Beneficial Uses in the San Joaquin River from the Merced River to the Delta
SWQ-7: Delta Salinity in San Joaquin River at Vernalis, San Joaquin River at Brandt Bridge, Old River near Middle River, and Old River at Tracy Road Bridge
SWQ-8: Delta Salinity in San Joaquin River at Jersey Point, Sacramento River at Emmaton, and Sacramento River at Collinsville

**Table 2-2.
Summary of Less-than-Significant Impacts in the SJRRP PEIS/R (contd.)**

SWQ-9: Delta Water Quality at Contra Costa Water District's Contra Costa Canal Pumping Plant No. 1, Old River at Los Vaqueros Intake, Proposed Victoria Canal Intake, and City of Stockton's Proposed Delta Intake
SWQ-10: Water Quality in the Delta-Mendota Canal at Jones Pumping Plant and in the West Canal at the Clifton Court Forebay
Land Use: Program-Level
LUP-2: Conversion of Riparian Forest to Non-Forest Uses
Land Use: Project-Level
LUP-6: Diminishment of Agricultural Production by Increased Orchard and Vineyard Diseases
LUP-7: Potential Conversion of Riparian Forest Because of Altered Inundation
Noise: Project-Level
NOI-6: Effects of the Reoperation of Friant Dam on the Noise Environment
Power and Energy: Program-Level
PWR-1: Decrease in CVP and SWP Energy Generation
PWR-2: Increase in CVP and SWP Energy Consumption
PWR-3: Increased Energy Consumption as a Result of Construction Activities
Power and Energy: Project-Level
PWR-5: Decrease in CVP and SWP Energy Generation
PWR-6: Increase in CVP and SWP Energy Consumption
PWR-7: Change in Energy Generation at Friant Dam
PWR-8: Increased Energy Consumption within Friant Division
Public Health and Hazardous Materials: Program-Level
PHH-2: Creation of a Substantial Hazard to the Public or the Environment through the Use of Hazardous Materials
PHH-7: Creation of a Substantial Hazard from Wildland Fires
PHH-8: Creation of a Substantial Hazard to Aircraft Safety
Public Health and Hazardous Materials: Project-Level
PHH-10: Exposure to Diseases in the Delta
Recreation: Program-Level
REC-2: Increased Use of Recreation Facilities and Demand for Recreation Opportunities in the Restoration Area
REC-3: Effects of Construction, Operations, and Maintenance of New Projects or Facilities on Recreation Opportunities in the Restoration Area
REC-6: Effects on Wildlife-Based Recreation Opportunities from Enhanced Wildlife Habitat Conditions Caused by Program Actions within the Restoration Area

**Table 2-2.
Summary of Less-than-Significant Impacts in the SJRRP PEIS/R (contd.)**

REC-7: Effects of Construction, Operations, and Maintenance of New Projects or Facilities on Recreation Opportunities on the San Joaquin River Between Merced River and the Delta
REC-8: Effects of Reintroducing Salmon to the San Joaquin River between Friant Dam and the Merced River on Angling Opportunities Downstream
Recreation: Project-Level
REC-10: Effects on Recreation Facilities from Increased Flow in the Restoration Area
REC-11: Effects on Swimming or Wading and Fishing Opportunities from Increased Flow in the Restoration Area
REC-13: Effects on Wildlife-Based Recreation Opportunities from Enhanced Wildlife Habitat Conditions Related to Increased Flow in the Restoration Area
REC-14: Effects on Warm-Water Fishing Opportunities from Enhanced Fish Populations Related to Increased Flow in the Restoration Area
REC-15: Effects on Warm-Water Fishing Opportunities from Increased Flow in the San Joaquin River from the Merced River to the Delta
REC-16: Effects on Warm-Water and Cold-Water Fishing Opportunities from Increased Flow into the Sacramento-San Joaquin Delta
Socioeconomics: Program-Level
SOC-1: Change in Regional Employment Levels
SOC-2: Change in Regional Population Levels
SOC-3: Change in Regional Housing Demand
Socioeconomics: Project-Level
SOC-4: Change in Regional Employment Levels
SOC-5: Change in Regional Population Levels
SOC-6: Change in Regional Housing Demand
SOC-7: Physical Decay in Communities
Transportation and Infrastructure: Project-Level
TRN-5: Reduced Traffic Circulation and Roadway Capacity
TRN-8: Reduced Bicycle and Pedestrian Circulation
Utilities and Service Systems: Program-Level
UTL-1: Potential Environmental Effects Associated with Needed Construction or Expansion of Water and Wastewater Treatment Facilities in the Restoration Area
UTL-5: Potential Need for New or Altered Facilities to Accommodate Increased Demand for Emergency Services in the Restoration Area
UTL-6: Potential for Insufficient Existing Water Supply and Resources between the Merced River and the Delta
UTL-7: Potential for Generation of Solid Waste between the Merced River and the Delta in Excess of Permitted Landfill Capacity
UTL-8: Potential Need for New or Altered Facilities to Accommodate Increased Demand for Emergency Services between the Merced River and the Delta

**Table 2-2.
Summary of Less-than-Significant Impacts in the SJRRP PEIS/R (contd.)**

Utilities and Service Systems: Project-Level
UTL-13: Potential Need for New or Altered Facilities to Accommodate Increased Demand for Emergency Services in the Restoration Area
UTL-17: Potential Need for New or Altered Facilities to Accommodate Increased Demand for Emergency Services between the Merced River and the Delta
Visual Resources: Program-Level
VIS-1: Temporary and Short-Term Construction-Related Changes in Scenic Vistas, Scenic Resources, and Existing Visual Character
Visual Resources: Project-Level
VIS-4: Effects of Friant Dam Reoperation on Scenic Vistas, Scenic Resources, and Existing Visual Character Upstream from Friant Dam
VIS-5: Changes in Scenic Vistas, Scenic Resources, and Existing Visual Character Downstream from Friant Dam

Key:

CVP = Central Valley Project

GHG = greenhouse gas

SWP = State Water Project

3 **Significant and Potentially Significant Impacts**

4 For the reasons stated in the PEIS/R, DWR finds the SJRRP Alternative C1 actions
 5 would have significant and potentially significant environmental impacts in the areas
 6 discussed below. The following findings address each significant and potentially
 7 significant environmental impact analyzed in the PEIS/R. Each impact statement, the
 8 mitigation measures described verbatim in the PEIS/R and adopted by DWR as
 9 conditions of approval, and DWR’s determination regarding the significance of the
 10 impact after mitigation are provided below. For program-level impacts, not all mitigation
 11 measures listed below may be applicable to each management action. Rather, these
 12 mitigation measures serve as an overlying mitigation framework to be used for specific
 13 management actions. The applicability of mitigation measures would vary based on the
 14 lead agency, location, timing, and nature of each management action.

15 **Air Quality**

16 **Impact AIR-1: Construction-Related Emissions of Criteria Air Pollutants and Precursors—**
 17 **Program-Level.**

18 **Mitigation**

19 **Mitigation Measure AIR-1: Prepare Project-Level Quantitative Analysis of Construction-**
 20 **Related Emissions and Implement Measures to Minimize Emissions—Program-Level.**

21 The project proponent will implement the measures described below for all future
 22 construction-related actions to quantify construction-related emissions for each future
 23 action, and identify and implement measures to reduce or minimize impacts.

1 The project proponent will obtain the necessary information to perform a complete
 2 quantitative project-level air emissions analysis as part of the subsequent environmental
 3 review for each construction project for which such review is required. The air quality
 4 analysis for each individual project will be based on the types, locations, numbers, and
 5 operations of equipment to be used; the amount and distance of material to be
 6 transported; and worker trips required. Each analysis will determine whether emissions
 7 exceed SJVAPCD standards and will require the project proponent to implement all
 8 emission reduction measures. The project proponent will incorporate the performance
 9 standards described below into all future project designs and adhere to them.

10 **Reduction of Ozone Precursor Emissions during Construction.** The project
 11 proponent will design future projects to comply with the following general mitigation
 12 requirements for construction emissions, as contained in SJVAPCD Rule 9510, “Indirect
 13 Source Review” (ISR):

- 14 • Exhaust emissions for construction equipment of greater than 50 horsepower that
 15 is used by, or associated with, the project will be reduced by 20 percent of the
 16 total NOX and by 45 percent of the total PM10 exhaust emissions from the
 17 statewide average, as estimated by ARB. Construction emissions may be reduced
 18 on site by using add-on controls, cleaner fuels, or newer lower-emissions
 19 equipment, thus generating less pollution.
- 20 • Additional strategies for reducing construction emissions, including, but not
 21 limited to, the following:
 - 22 – Providing sufficient commercial electric power to the project site to avoid or
 23 minimize the use of portable electric generators.
 - 24 – Substituting electric-powered equipment for diesel engine-driven equipment.
 - 25 – Limiting the hours of operation of heavy-duty equipment and/or the amount of
 26 equipment used at any one time.
 - 27 – Minimizing idling time (e.g., 10-minute maximum).
 - 28 – Replacing equipment that uses fossil fuels with electrically driven equivalents
 29 (provided that they are not run via a portable generator set).

30 **Reduction of Particulate Emissions during Construction.** The project proponent will
 31 design future projects to comply with SJVAPCD’s Regulation VIII, “Fugitive Dust PM₁₀
 32 Prohibitions,” and will implement all applicable control measures. Regulation VIII
 33 contains the following required control measures, among others:

- 34 • Pre-water the site enough to limit visible dust emissions (VDE) to 20 percent
 35 opacity.
- 36 • Phase the work to reduce the amount of surface area disturbed at any one time.

- 1 • During active construction:
 - 2 – Apply enough water or chemical/organic stabilizers or suppressants to limit
3 VDE to 20 percent opacity.
 - 4 – Construct and maintain wind barriers sufficient to limit VDE to 20 percent
5 opacity. - 6 – Apply water or chemical/organic stabilizers or suppressants to unpaved
7 access/haul roads and unpaved vehicle/equipment traffic areas in sufficient8 quantity to limit VDE to 20 percent opacity and meet the conditions of a9 stabilized unpaved road surface.
- 10 • Limit the speed of vehicles traveling on uncontrolled, unpaved access/haul roads
- 11 within construction sites to a maximum of 15 miles per hour (mph).
- 12 • Post speed-limit signs meeting the standards of the U.S. and California
- 13 departments of transportation at the entrance to each construction site’s14 uncontrolled, unpaved access/haul road. Speed-limit signs will also be posted at15 least every 500 feet and will be readable in both directions of travel along16 uncontrolled, unpaved access/haul roads.
- 17 • When handling bulk materials:
 - 18 – Apply water or chemical/organic stabilizers or suppressants in sufficient
19 quantity to limit VDE to 20 percent opacity.
- 20 – Construct and maintain wind barriers sufficient to limit VDE to 20 percent
- 21 opacity and with less than 50 percent porosity.
- 22 • When storing bulk materials:
 - 23 – Comply with the conditions for a stabilized surface, as listed above.
 - 24 – Cover bulk materials stored outdoors with tarps, plastic, or other suitable
25 material and anchor the covers to prevent their removal by wind action.
- 26 – Construct and maintain wind barriers that are sufficient to limit VDE to 20
- 27 percent opacity and that have less than 50 percent porosity. If using fences or28 wind barriers, apply water or chemical/organic stabilizers or suppressants to29 limit VDE to 20 percent opacity, or use a three-sided structure that is at least30 as high as the storage pile and has less than 50 percent porosity.
- 31 • Load all haul trucks such that the freeboard is not less than 6 inches when
- 32 material is transported across any paved public-access road. Freeboard should be33 sufficient to limit VDE to 20-percent opacity.
- 34 • Apply enough water to the top of the load to limit VDE to 20 percent opacity.

- 1 • Cover haul trucks with a tarp or other suitable cover.
- 2 • Clean the interior of the cargo compartment or cover the cargo compartment
- 3 before an empty truck leaves the site.
- 4 • Prevent carryout and trackout, or immediately remove carryout and trackout when
- 5 it extends 50 feet or more from the nearest unpaved-surface exit point of a site.
- 6 • Clean up carryout and trackout using one of the following methods:
- 7 – Manually sweeping and picking up.
- 8 – Operating a rotary brush or broom accompanied or preceded by sufficient
- 9 wetting to limit VDE to 20 percent opacity.
- 10 – Operating a PM₁₀-efficient street sweeper that has a pickup efficiency of at
- 11 least 80 percent.
- 12 – Flushing with water, if curbs or gutters are not present and if using water
- 13 would not result in a source of trackout material, adverse impacts on
- 14 stormwater drainage systems, or violate any National Pollutant Discharge
- 15 Elimination System permit program
- 16 • Submit a dust control plan to the air pollution control officer (APCO) before the
- 17 start of any construction activity that would disturb 5 acres or more of surface
- 18 area, or that would move, deposit, or relocate more than 2,500 cubic yards per day
- 19 of bulk materials on at least 3 days. Do not begin construction activities until the
- 20 APCO has approved or conditionally approved the dust control plan. Notify the
- 21 APCO in writing, via fax or letter, within 10 days before earthmoving activities
- 22 commence.
- 23 The project proponent will implement the following SJVAPCD-recommended enhanced
- 24 and additional control measures for all construction phases to further reduce fugitive
- 25 PM₁₀ dust emissions:
- 26 • Install sandbags or other erosion control measures to prevent silt runoff to public
- 27 roadways from adjacent project areas with a slope greater than 1 percent.
- 28 • Suspend excavation and grading activity when winds exceed 20 mph.

29 ***Finding***

30 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
 31 AIR-1 will substantially lessen program-level impacts associated with construction-
 32 related emissions of criteria air pollutants and precursors. The project proponent will
 33 obtain the necessary information to perform a complete quantitative project-level air
 34 emissions analysis as part of the subsequent environmental review for each construction
 35 project when such review is required. In addition, future projects will be designed to
 36 comply with general mitigation requirements for construction emissions, as contained in

1 SJVAPCD Rule 9510, “Indirect Source Review” (ISR) and SJVAPCD’s Regulation VIII,
2 “Fugitive Dust PM₁₀ Prohibitions.” Compliance with SJVAPCD’s Rule 9510 will result
3 in a minimum 20 percent reduction in NO_x emissions from heavy-duty diesel equipment,
4 compared with statewide average emissions and also will reduce emissions of ROG
5 (reactive organic gases) and PM₁₀ exhaust from heavy-duty diesel equipment by 5
6 percent and 45 percent, respectively. Compliance with SJVAPCD’s Regulation VIII and
7 implementation of all applicable SJVAPCD-recommended control measures will further
8 reduce particulate emissions. As a result, generation of construction-related dust (PM₁₀
9 emissions) will be reduced below SJVAPCD levels of significance. However, without
10 specific project-level information, construction emissions of ROG and NO_x are not
11 quantifiable at this time, and it cannot be determined whether mitigation will reduce
12 emissions to a less-than-significant level (e.g., emissions may still exceed 10 tons per
13 year even with the ISR reductions of 20 percent and 5 percent for NO_x and ROG,
14 respectively). Therefore, this impact would remain potentially significant and
15 unavoidable after mitigation. DWR finds this remaining potentially significant and
16 unavoidable impact to be acceptable because the environmental, economic, legal, social,
17 technological, and other benefits outweigh and override this and the other significant and
18 unavoidable environmental impacts of the project for the reasons set forth in Section 3.0,
19 “Statement of Overriding Considerations,” of this document.

20 **Climate Change and Greenhouse Gas Emissions**

21 **Impact CLM-1: Construction-Related Emissions of GHGs—Program-Level.**

22 ***Mitigation***

23 **Mitigation Measure CLM-1: Implement All Feasible Measures to Reduce Emissions—** 24 **Program-Level.**

25 The project proponent will provide a complete quantitative project-level analysis of GHG
26 emissions as part of the subsequent environmental review for each individual project. The
27 GHG analysis for each project shall be based on the types, locations, numbers, and
28 operations of equipment to be used; the amount and distance of material to be
29 transported; worker trips required; and electricity generation. The project proponent will
30 be required to implement all feasible measures for reducing GHG emissions such as those
31 listed in the Office of Planning and Research (OPR) *Technical Advisory on CEQA and*
32 *Climate Change* (2008), and the SJVAPCD Guidance document (SJVAPCD 2009).

33 ***Finding***

34 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
35 CLM-1 will help reduce potentially significant GHG emissions by individual projects,
36 and it could result in a less-than-significant impact because the project proponent will
37 provide a complete quantitative project-level analysis of GHG emissions as part of the
38 subsequent environmental review for each individual project and will implement all
39 feasible measures for reducing GHG emissions. However, without specific project-level
40 information, the levels of GHG emissions after mitigation cannot be quantified at this
41 time. Thus, without relying on speculation, it is assumed that construction-generated
42 GHG emissions could result in a cumulatively considerable incremental contribution to a

1 significant cumulative impact on global climate change. DWR finds this remaining
 2 potentially significant and unavoidable cumulative impact to be acceptable because the
 3 environmental, economic, legal, social, technological, and other benefits outweigh and
 4 override this and the other significant and unavoidable environmental impacts of the
 5 project for the reasons set forth in Section 3.0, “Statement of Overriding Considerations,”
 6 of this document.

7 **Impact CLM-4: Operational Emissions of GHGs—Project Level.**

8 ***Mitigation***

9 **Mitigation Measure CLM-1: Implement All Feasible Measures to Reduce Emissions—Project-**
 10 **Level.**

11 Reclamation will implement applicable mitigation strategies to reduce GHG emissions.
 12 Mitigation strategies that may be applicable include those shown in Table 2-3.

13 **Table 2-3.**
 14 **Potential Mitigation Strategies**

Mitigation Strategy	Mitigation Mechanism
Renewable Energy Generation projects	Reduce emission rates through sources such as solar, wind, hydroelectric, geothermal, biomass, or tidal
Carbon Offset Purchasing	Would fund projects to reduce emissions or sequester carbon through an offset program certified by the California Air Resources Board or comparable entity
Sequestration Projects	Would remove carbon directly from the atmosphere

15

16 In addition to mitigation measures that Reclamation will implement to reduce GHG
 17 emissions, existing or future regulatory programs may further reduce GHGs emitted as a
 18 result of the project-level actions. Existing regulatory programs with the potential to
 19 influence future conditions, and future regulatory programs aimed at reducing GHG
 20 emissions and improving energy efficiency throughout the state, are listed in Table 2-4.

21 **Table 2-4.**
 22 **Existing and Future Regulatory Programs**

Regulatory Program	California Regulatory Authority
Energy Efficiency	AB 32
Renewables Portfolio Standard	AB 32, SB 1078, SB 107, EO S-14-08
Renewable Electricity Standard	AB32, SB 1078, SB 107, EO S-14-08, EO S-21-09, ARB Resolution 10-23
California Cap-and-Trade Program	AB 32
High GWP Reductions from Stationary Sources	AB 32, 17 CCR Section 95320 – 95326, 95340 – 95346
Mitigation Fee on High GWP Gases	AB 32

Key:

AB = Assembly Bill

ARB = California Air Resources Board

CCR = California Code of Regulations

EO = Executive Order

GWP = global warming potential

SB = Senate Bill

1 **Finding**

2 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
3 CLM-1 will reduce GHG emissions to less than the maximum estimated amount, but the
4 emissions that ultimately will occur remain uncertain. Because of the uncertainty of the
5 ultimate emissions and their potential magnitude, operational emissions of GHGs could
6 result in a cumulatively considerable incremental contribution to a significant cumulative
7 impact on global climate change. DWR finds this remaining potentially significant and
8 unavoidable cumulative impact to be acceptable because the environmental, economic,
9 legal, social, technological, and other benefits outweigh and override this and the other
10 significant and unavoidable environmental impacts of the project for the reasons set forth
11 in Section 3.0, “Statement of Overriding Considerations,” of this document.

12 **Cultural Resources**

13 **Impact CUL-1: Disturbance or Destruction of Cultural Resources Within Restoration Area—**
14 **Program-Level.**

15 **Mitigation**

16 **Mitigation Measure CUL-1: Comply with Section 106 of the NHPA or Equivalent—Program-**
17 **Level.**

18 The Federal project proponent, if any, will comply with Section 106 of the NHPA during
19 subsequent site-specific studies, including complying with the Programmatic Agreement
20 (PA) developed as part of Mitigation Measure CUL-2. The State project proponent, if
21 any, must comply with Sections 5024 and 5024.5 of the PRC. Sections 5024 and 5024.5
22 of the PRC require State agencies to confer with the SHPO before implementing any
23 project with the potential to affect historical resources listed in or potentially eligible for
24 inclusion in the National Register of Historic Places (NRHP) or registered as or eligible
25 for registration as a state historical landmark. In addition, the State project proponent may
26 choose to join the PA as a signatory agency.

27 Site-specific environmental reviews will be conducted before all ground-disturbing
28 activities. The following mitigation measures, consisting of inventory, evaluation, and
29 treatment processes, will be conducted by the project proponent as part of the
30 environmental reviews to ensure compliance with Section 106 of the NHPA or Sections
31 5024 and 5024.5 of the PRC, as applicable. Coordination will continue with the relevant
32 Native American tribes in the area, as necessary to complete these compliance processes.
33 The mitigation measures that will reduce the impacts of the program-level actions are:

- 34 • **Conduct Class III cultural resources surveys of portions of the project area**
35 **that have not been surveyed.** Before any ground disturbance takes place in the
36 project area (including areas of ancillary activities, such as staging areas and
37 access routes), Class II cultural resource surveys covering the APE will be
38 conducted to locate and record cultural resources. Where appropriate, subsurface
39 discovery efforts also will be undertaken to identify buried archaeological sites.

- 1 • **Plan activities to avoid known cultural resources.** Before carrying out ground-
2 disturbing activities, areas that have been delineated as containing cultural
3 resources will be demarcated, and all ground-disturbing or related activities will
4 be planned to avoid these areas.
- 5 • **Evaluate significance of resources that cannot be avoided.** If cultural resources
6 cannot be avoided through careful planning of the activities associated with a
7 project, additional research or test excavation (as appropriate) will be undertaken
8 to determine whether the resources meet NRHP and/or CEQA significance
9 criteria.
- 10 • **Develop treatment process to mitigate effects of project upon significant**
11 **resources.** Impacts on significant resources that cannot be avoided will be
12 mitigated in a manner that is deemed appropriate for the particular resource.
13 Mitigation for significant resources may include, but are not be limited to, data
14 recovery, public interpretation, performance of a Historic American Building
15 Survey or Historic American Engineering Record, or preservation by other means.

16 ***Finding***

17 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
18 CUL-1 will reduce the potentially significant impacts associated with disturbance or
19 destruction of cultural resources within the Restoration Area to a less-than-significant
20 level. The federal project proponent, if any, will comply with National Historic
21 Preservation Act (NHPA) Section 106 during subsequent site-specific studies, including
22 complying with the PA developed as part of Mitigation Measure CUL-2. The state
23 project proponent, if any, will comply with PRC Sections 5024 and 5024.5, which
24 requires state agencies to confer with the SHPO before implementing any project with the
25 potential to affect historical resources listed in or potentially eligible for inclusion in the
26 NRHP or registered as or eligible for registration as a state historical landmark. Site-
27 specific environmental reviews will be conducted before all ground-disturbing activities,
28 and additional mitigation measures may include conducting a Class III cultural resources
29 survey of portions of the project area that have not been surveyed, planning ground-
30 disturbing activities to avoid known cultural resources, and developing treatment
31 processes to mitigate effects of the project on significant resources.

32 **Impact CUL-2: Disturbance or Destruction of Cultural Resources Around Millerton Lake—**
33 **Project-Level.**

34 ***Mitigation***

35 **Mitigation Measure CUL-2: Comply with Section 106 of the NHPA and Develop and**
36 **Implement a Programmatic Agreement or Equivalent—Project-Level.**

37 Reclamation will comply with the Federal NHPA Section 106 process to mitigate any
38 significant, adverse impacts to cultural resources and historic properties to less-than-
39 significant levels.

1 Reclamation will develop a PA with SHPO through the Section 106 consultation process.
2 As part of the PA, Reclamation will identify archaeological sites and historic Native
3 American places with the potential for significant impacts to occur due to changes in
4 reservoir operations. In the event that release of Interim or Restoration flows are likely to
5 cause damage to a historic property, Reclamation will comply with the process identified
6 in the PA for the evaluation and recovery of data at any such cultural resource.
7 Undocumented cultural resources may also exist in the reservoir basin. If such a site is
8 identified during implementation of the alternatives and release of Interim or Restoration
9 flows is likely to cause damage to such a site, Reclamation will ensure the evaluation and
10 recovery of data at these sites.

11 ***Finding***

12 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
13 CUL-2 will reduce potentially significant impacts associated with disturbance or
14 destruction of cultural resources around Millerton Lake to a less-than-significant level
15 because Reclamation will comply with the NHPA Section 106 process. This will include
16 developing a PA with SHPO, identifying archaeological sites and historic Native
17 American places with the potential for significant impacts to occur because of changes in
18 reservoir operations, complying with the PA process for the evaluation and recovery of
19 data at any such cultural resource, and ensuring the evaluation and recovery of data at
20 these sites.

21 **Impact CUL-3: Disturbance or Destruction of Cultural Resources Within the Restoration**
22 **Area—Project-Level.**

23 ***Mitigation***

24 **Mitigation Measure CUL-2: Comply with Section 106 of the NHPA and Develop and**
25 **Implement a Programmatic Agreement—Project-Level.**

26 This mitigation measure is the same as Mitigation Measure CUL-2 described above.

27 ***Finding***

28 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
29 CUL-2 will reduce potentially significant impacts on cultural resources within the
30 Restoration Area to a less-than-significant level because Reclamation will comply with
31 the NHPA Section 106 process. This will include developing a PA with SHPO,
32 identifying archaeological sites and historic Native American places with the potential for
33 significant impacts to occur because of changes in reservoir operations, complying with
34 the PA process for the evaluation and recovery of data at any such cultural resource, and
35 ensuring the evaluation and recovery of data at these sites.

36

1 Impact CUL-4: Disturbance or Destruction of Cultural Resources Along the San Joaquin
2 River Downstream from the Merced River—Project-Level.

3 **Mitigation**

4 Mitigation Measure CUL-2 (Alternatives A1 through C2): Comply with Section 106 of the
5 NHPA and Develop and Implement a Programmatic Agreement—Project-Level.

6 This mitigation measure is the same as to Mitigation Measure CUL-2 described above.

7 **Finding**

8 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
9 CUL-2 will reduce potentially significant impacts on cultural resources along the San
10 Joaquin River downstream from the Merced River because Reclamation will comply with
11 the NHPA Section 106 process. This will include developing a PA with SHPO,
12 identifying archaeological sites and historic Native American places with the potential for
13 significant impacts to occur because of changes in reservoir operations, complying with
14 the PA process for the evaluation and recovery of data at any such cultural resource, and
15 ensuring the evaluation and recovery of data at these sites.

16 **Geology and Soils**

17 Impact GEO-1: Potential Localized Soil Erosion, Sedimentation, and Inadvertent Permanent
18 Soil Loss—Program-Level.

19 **Mitigation**

20 Mitigation Measure GEO-1: Prepare and Implement a Stormwater Pollution Prevention Plan
21 that Minimizes the Potential Contamination of Surface Waters, and Complies with
22 Applicable Federal Regulations Concerning Construction Activities—Program-Level.

23 This mitigation measure is the same as Mitigation Measure SWQ-1A described below
24 under “Hydrology—Surface Water Quality.”

25 **Finding**

26 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
27 GEO-1 will reduce potentially significant impacts associated with temporary
28 construction-related effects on surface water quality to a less-than-significant level
29 because any required permits from the Central Valley Regional Water Quality Control
30 Board (RWQCB) will be obtained by project proponents for site-specific projects before
31 any ground-disturbing construction activities occur and a storm water pollution
32 prevention plan (SWPPP) will be prepared that identifies best management practices
33 (BMPs) to prevent or minimize the introduction of contaminants into surface waters,
34 prevent and control impacts on runoff quality, identify measures that will be implemented
35 before each storm event, and monitor runoff quality by visual and/or analytical means.

1 **Hydrology—Flood Management**

2 Impact FLD-1: Expose People or Structures to a Significant Risk of Loss, Injury, or Death
3 Involving Flooding, Including Flooding as a Result of the Failure or a Levee or Dam—
4 Program-Level.

5 ***Mitigation***

6 Mitigation Measure FLD-1: Implement Design Standards to Minimize Risk of Loss, Injury, or
7 Death Involving Flooding—Program-Level.

8 Each site-specific study will include an analysis of the potential of that project to locally
9 impede flow or transfer flood risk to downstream areas as a result of changes in velocity,
10 stage, or cross-section. If a site-specific study identifies the potential for a program-level
11 action to locally impede flow or transfer flood risk to downstream areas, the project
12 proponents for the site-specific project will incorporate actions into site-specific design of
13 individual projects to reduce redirected flood flow impacts to less-than-significant levels.
14 Site-specific projects that cannot or do not reduce redirected flood impacts to less-than-
15 significant levels will not be implemented as part of the SJRRP.

16 Because the details of the program-level actions are not known at this time, there is
17 insufficient information available to describe specific actions that would reduce this
18 impact to less-than-significant levels. However, incorporating actions into project design
19 and mitigation measures to reduce redirected flood flow impacts to less-than-significant
20 levels will be accomplished using known and accepted engineering design standards and
21 features. Actions could include but would not be limited to modifications to project
22 design, modifications to existing levees, providing a larger floodplain between levees
23 through the acquisition of land and construction of setback levees, or regrading of land
24 between levees.

25 ***Finding***

26 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
27 FLD-1 will reduce potentially significant impacts associated with exposure of people or
28 structures to a significant risk of loss, injury, or death involving flooding, including
29 flooding as a result of the failure or a levee or dam to a less-than-significant level because
30 the project proponents for each site-specific project will conduct a site-specific study and
31 incorporate actions into the design of individual projects to reduce redirected flood flow
32 impacts based on known and accepted engineering design standards and features. Actions
33 can include but may not be limited to modifying project design and existing levees,
34 providing a larger floodplain between levees through the acquisition of land and
35 construction of setback levees, or regrading of land between levees.

36

1 **Hydrology—Groundwater**

2 Impact GRW-1: Temporary Construction-Related Effects on Groundwater Quality—Program
3 Level.

4 ***Mitigation***

5 Mitigation Measure GRW-1a: Prepare and Implement a Stormwater Pollution Prevention Plan
6 That Minimizes the Potential Contamination of Surface Waters, and Complies with
7 Applicable Federal Regulations Concerning Construction Activities—Program-Level.

8 This mitigation measure is the same as Mitigation Measure SWQ-1A, described below
9 under “Hydrology—Surface Water Quality.”

10 Mitigation Measure GRW-1b: Conduct Phase I Environmental Site Assessments—Program-
11 Level.

12 This mitigation measure is the same as Mitigation Measure PHH-1 described below
13 under “Public Health and Hazardous Materials.”

14 ***Finding***

15 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measures
16 GRW-1a and GRW-1b will reduce potentially significant impacts associated with
17 temporary construction-related effects on groundwater quality to a less-than-significant
18 level because any required permits from the Central Valley RWQCB will be obtained by
19 project proponents for site-specific projects before any ground-disturbing construction
20 activities occur, and a SWPPP will be prepared that identifies BMPs to prevent or
21 minimize the introduction of contaminants into groundwater. In addition, project
22 proponents of subsequent site-specific projects will conduct a Phase I Environmental Site
23 Assessment to determine the presence of any hazardous materials at all construction sites
24 at which ground-disturbing activities will occur and will implement all recommended
25 actions and measures identified in the Phase I Environmental Site Assessment.

26 Impact GRW-4: Change in Groundwater Levels in CVP/SWP Water Service Areas—Project-
27 Level.

28 ***Mitigation***

29 No mitigation is available.

30 ***Finding***

31 For the reasons stated in the PEIS/R, DWR finds that reduced surface water deliveries to
32 Friant Division long-term contractors would potentially increase reliance on groundwater
33 and result in adverse impacts to groundwater levels and quality. Reclamation will
34 consider regional overdraft conditions in evaluating candidate groundwater banking
35 projects developed under Title III of the Act. Whether remaining groundwater overdraft
36 would be potentially significant and unavoidable is unknown, and no feasible mitigation
37 measures exist to reduce impacts associated with changes in groundwater levels in the

1 CVP/SWP service areas. DWR finds this remaining potentially significant and
2 unavoidable impact to be acceptable because the environmental, economic, legal, social,
3 technological, and other benefits outweigh and override this and the other significant and
4 unavoidable environmental impacts of the project for the reasons set forth in Section 3.0,
5 “Statement of Overriding Considerations,” of this document.

6 **Impact GRW-5: Change in Groundwater Quality in CVP/SWP Water Service Areas—Project-**
7 **Level.**

8 ***Mitigation***

9 No mitigation is available.

10 ***Finding***

11 For the reasons stated in the PEIS/R, DWR finds that reduced surface water deliveries to
12 Friant Division long-term contractors would result in increased use of groundwater
13 supplies, thereby increasing overdraft. The increase in groundwater pumping for a
14 prolonged period would not only decrease groundwater levels, but could potentially lead
15 to upwelling of poorer quality. The San Joaquin Valley Groundwater Basin is in a state of
16 overdraft, and groundwater levels are expected to continue in a downward trend. Whether
17 remaining groundwater overdraft would be potentially significant and unavoidable is
18 unknown, and no feasible mitigation measures exist to reduce impacts associated with
19 changes in groundwater quality in the CVP/SWP service areas. DWR finds this
20 remaining potentially significant and unavoidable impact to be acceptable because the
21 environmental, economic, legal, social, technological, and other benefits outweigh and
22 override this and the other significant and unavoidable environmental impacts of the
23 project for the reasons set forth in Section 3.0, “Statement of Overriding Considerations,”
24 of this document.

25 **Hydrology—Surface Water Supplies and Facilities Operations**

26 **Impact SWS-1: Changes in Diversion Capacities—Program-Level.**

27 ***Mitigation***

28 **Mitigation Measure SWS-1: Provide Alternative Temporary or Permanent River Access to**
29 **Avoid Diversion Losses—Program-Level.**

30 If the potential for significant impacts to existing operational diversion facilities due to
31 construction activities is identified during site-specific studies, the project proponent
32 would provide alternative equivalent pumping capacity. Permanent diversion facility
33 relocations would be incorporated in the designs of any restoration action that would
34 permanently impact existing facilities.

35 ***Finding***

36 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
37 SWS-1 will reduce potentially significant impacts associated with changes in diversion
38 capacity to a less-than-significant level because project proponents will provide

1 alternative equivalent pumping capacity in areas where construction activities impede the
2 operation of existing diversion facilities.

3 **Hydrology—Surface Water Quality**

4 **Impact SWQ-1: Temporary Construction-Related Effects on Surface Water Quality in the San**
5 **Joaquin River from Friant Dam to the Merced River, San Joaquin River from the Merced**
6 **River to the Delta, the Delta, and CVP/SWP Water Service Areas—Program-Level.**

7 ***Mitigation***

8 **Mitigation Measure SWQ-1A: Prepare and Implement a Stormwater Pollution Prevention**
9 **Plan that Minimizes the Potential Contamination of Surface Waters, and Complies with**
10 **Applicable Federal Regulations Concerning Construction Activities—Program-Level.**

11 Construction activities associated with action alternatives are subject to construction-
12 related stormwater permit requirements of the Federal Clean Water Act’s NPDES
13 program. Any required permits through the Central Valley RWQCB will be obtained by
14 project proponents for site-specific projects before any ground-disturbing construction
15 activity. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared that
16 identifies best management practices (BMPs) to prevent or minimize the introduction of
17 contaminants into surface waters. BMPs for the project could include, but would not be
18 limited to, silt fencing, straw bale barriers, fiber rolls, storm drain inlet protection,
19 hydraulic mulch, and a stabilized construction entrance.

20 The SWPPP will include development of site-specific structural and operational BMPs to
21 prevent and control impacts on runoff quality, measures to be implemented before each
22 storm event, inspection and maintenance of BMPs, and monitoring of runoff quality by
23 visual and/or analytical means.

24 **Mitigation Measure SWQ-1B: Conduct and Comply with Phase I Environmental Site**
25 **Assessments in the Restoration Area—Program-Level.**

26 This mitigation measure is the same as Mitigation Measure PHH-1 described below
27 under “Public Health and Hazardous Materials.”

28 ***Finding***

29 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measures
30 SWQ-1A and SWQ-1B will reduce potentially significant impacts associated with
31 temporary construction-related effects on surface water quality to a less-than-significant
32 level because any required permits from the Central Valley RWQCB will be obtained by
33 project proponents for site-specific projects before any ground-disturbing construction
34 activities occur, and an SWPPP will be prepared that identifies BMPs to prevent or
35 minimize the introduction of contaminants into surface waters, prevent and control
36 impacts on runoff quality, and identify measures to be implemented before each storm
37 event. In addition, project proponents of subsequent site-specific projects will conduct a
38 Phase I Environmental Site Assessment to determine the presence of any hazardous
39 materials at all construction sites at which ground-disturbing activities occur and will

1 implement all recommended actions and measures identified in the Phase I
2 Environmental Site Assessment.

3 **Land Use Planning and Agricultural Resources**

4 **Impact LUP-1: Conversion of Important Farmland to Nonagricultural Uses and Cancellation**
5 **of Williamson Act Contracts—Program-Level.**

6 ***Mitigation***

7 **Mitigation Measure LUP-1a: Design and Implement Levee Setbacks to Preserve Agricultural**
8 **Productivity of Important Farmland to the Extent Possible and Comply with the Surface**
9 **Mining and Reclamation Act—Program-Level.**

10 To support the continued productive use of Important Farmland in the corridor between
11 proposed levees and at borrow sites, the project proponent will implement the following
12 measures where appropriate, and be consistent with the purpose and objectives of the
13 SJRRP (as determined by Reclamation and DWR), in the design and implementation of
14 the levee setback:

- 15 • When selecting sites for borrow excavation, minimize the fragmentation of lands
16 that are to remain in agricultural use. Retain contiguous parcels of agricultural
17 land of sufficient size to support their efficient use for continued agricultural
18 production.
- 19 • Perform reclamation of all borrow sites in compliance with the California
20 SMARA, thus retaining their potential use for agriculture. Under SMARA, the
21 removal of borrow material is a surface mining activity and as such is regulated
22 by the SMARA statute. SMARA requires that the surface mine operator secure a
23 use permit, reclamation plan, and financial assurance mechanism. The SMARA
24 statute also identifies activities and situations that are exempt from SMARA. The
25 project proponent will comply with SMARA by coordinating with the relevant
26 SMARA lead agency (usually within the county in which mining occurs) and the
27 DOC to identify and implement the appropriate mechanism for satisfying
28 SMARA.
- 29 • Where the levee system and Mendota Pool Bypass would transect agricultural
30 properties, and the landowners desire to continue agricultural use on the portions
31 located within the levee system and bypass, provide a means of convenient access
32 to these properties.
- 33 • The project proponent will either (1) acquire agricultural conservation easements
34 at a 1:1 ratio (i.e., 1 acre on which easements are acquired to 1 acre of Important
35 Farmland removed from agricultural use) in coordination with affected land
36 owners to maximize the potential for affected landowners to continue to use such
37 lands to the extent possible, to be held by land trusts or public agencies who will
38 be responsible for enforcement of the deed restrictions maintaining these lands in
39 agricultural use, or (2) provide funds to a land trust or government program that

1 conserves agricultural land sufficient to obtain easements on comparable land at a
2 1:1 ratio.

- 3 • Stockpile the upper 2 feet of soil from borrow sites and from portions of levee,
4 bypass, and other project feature footprints that are Important Farmland.
5 Stockpiled soil would be used in subsequent restoration of agricultural uses or
6 redistributed for agricultural purposes in coordination with affected landowners.
- 7 • Restore for agricultural uses those portions of borrow sites and of levee, bypass,
8 and other project feature footprints that are Important Farmland and are not
9 converted to project features, managed habitat, or project mitigation for
10 nonagricultural impacts, in coordination with affected landowners. Restoration for
11 agricultural use would include redistribution of salvaged topsoil and earthwork for
12 necessary irrigation and drainage.
- 13 • Redistribute the most productive salvaged topsoil that is not used in restoring
14 agricultural uses to affected Important Farmland. Redistribution will be to less
15 productive agricultural lands near but outside the levee setback and Mendota Pool
16 Bypass areas that could benefit from the introduction of good-quality soil. By
17 agreement between Reclamation or landowners of affected properties and the
18 recipient(s) of the topsoil, the recipient(s) must use the topsoil for agricultural
19 purposes.
- 20 • Minimize disturbance of Important Farmland and continuing agricultural
21 operations during construction by implementing the following measures in
22 coordination with affected landowners:
 - 23 – Locate construction laydown and staging areas on sites that are fallow,
24 disturbed, or to be discontinued for use as agricultural land to the extent
25 possible.
 - 26 – Use existing roads to access construction areas to the extent possible.
- 27 • Coordinate with growers to develop appropriate construction practices to
28 minimize construction-related impairment of agricultural productivity. Practices
29 may include coordinating the movement of heavy equipment within the levee
30 setback and Mendota Pool Bypass areas and implementing traffic control
31 measures outside these areas.

32 **Mitigation Measure LUP-1b (Alternatives A1 and B1): Minimize Impacts on Williamson Act-**
33 **Contracted Lands, Comply with Government Code Sections 51290–51293, and Coordinate**
34 **with Landowners and Agricultural Operators—Program-Level.**

35 To reduce impacts on lands under Williamson Act and Super Williamson Act contracts,
36 the project proponent will implement the measures described below.

- 1 • The project proponent will comply with California Government Code Sections
2 51290–51295 with regard to acquiring lands under Williamson Act–contracted
3 lands. Sections 51290(a)–51290(b) state that State policy, consistent with the
4 purpose of the Williamson Act to preserve and protect agricultural land, is to
5 avoid locating public improvements and any public utilities improvements in
6 agricultural preserves, whenever practicable. If such improvements must be
7 located within a preserve, they will be located on land that is not under contract.

- 8 • More specifically, the project proponent will comply with the following basic
9 requirements stated in the California Government Code:
 - 10 – Whenever it appears that land within a preserve or under contract may be
11 required for a public improvement, DOC and the city or county responsible
12 for administering the preserve must be notified (Section 51291(b)).

 - 13 – Within 30 days of being notified, DOC and the city or county would forward
14 comments, which would be considered by the proponent of the public
15 improvement (Section 51291(b)).

 - 16 – A public improvement may not be located within an agricultural preserve
17 unless findings are made that (1) the location is not based primarily on the
18 lower cost of acquiring land in an agricultural preserve and (2) for agricultural
19 land covered under a contract for any public improvement, no other land
20 exists within or outside the preserve where it is reasonably feasible to locate
21 the public improvement (Sections 51921(a) and 51921(b)).

 - 22 – The contract would be terminated when land is acquired by eminent domain
23 or in lieu of eminent domain (Section 51295).

 - 24 – DOC would be notified within 10 working days upon completion of the
25 acquisition (Section 51291(c)).

 - 26 – DOC and the city or county would be notified before completion of any
27 proposed substantial changes to the public improvement (Section 51291(d)).

 - 28 – If, after acquisition, the acquiring public agency determines that the property
29 would not be used for the proposed public improvement, DOC and the city or
30 county administering the involved preserve will be notified before the land is
31 returned to private ownership. The land would be reenrolled in a new contract
32 or encumbered by an enforceable restriction at least as restrictive as that
33 provided by the Williamson Act (Section 51295).

- 34 • The project proponent will coordinate with landowners and agricultural operators
35 to sustain existing agricultural operations, at the landowners’ discretion, within
36 the study area until the individual agricultural parcels are needed for project
37 construction.

Finding

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measures LUP-1a and LUP-1b will substantially lessen significant impacts associated with conversion of substantial amounts of Important Farmland to nonagricultural uses and cancellation of Williamson Act contracts. The agricultural productivity of Important Farmland will be preserved to the extent feasible because the project proponents will minimize the fragmentation of lands that are to remain in agricultural use and provide convenient access to these properties, reclaim borrow sites in compliance with the California SMARA, acquire agricultural conservation easements at a 1:1 ratio or provide funds to a land trust or government program that conserves agricultural land sufficient to obtain easements on comparable land at a 1:1 ratio, stockpile soil for use in subsequent restoration of agricultural uses or for redistribution for agricultural purposes, and coordinate with growers to develop appropriate construction practices to minimize construction-related impairment of agricultural productivity. Impacts on Williamson Act–contracted lands will be minimized through compliance with California Government Code Sections 51290–51293 and coordination with landowners and agricultural operators to sustain existing agricultural operations until individual agricultural parcels are needed for project construction. Implementing Mitigation Measures LUP-1a and LUP-1b will reduce potential impacts on Important Farmland, including indirect effects that may lead farming to be discontinued on some lands, and cancellation of Williamson Act contracts. However, these measures will not reduce the impact to a less-than-significant level because a substantial amount of Important Farmland still will be converted and Williamson Act contracts still will be cancelled, and no additional mitigation measures exist to fully mitigate the loss of this Important Farmland and cancellation of Williamson Act contracts. Therefore, this impact would remain significant and unavoidable after mitigation. DWR finds this remaining significant and unavoidable impact to be acceptable because the environmental, economic, legal, social, technological, and other benefits outweigh and override this and the other significant and unavoidable environmental impacts of the project for the reasons set forth in Section 3.0, “Statement of Overriding Considerations,” of this document.

Impact LUP-3: Conflict with Adopted Land Use Plans, Goals, Policies, and Ordinances of Affected Jurisdictions—Program-Level.

Mitigation

No mitigation is available.

Finding

For the reasons stated in the PEIS/R, DWR finds that the restoration actions, including modifications to the Reach 2 levee system, construction of the Mendota Pool Bypass, and integrated floodplain habitat will be inconsistent with land uses in the adopted general plan and zoning ordinances of Fresno and Madera counties. Because the general plan designations are intended to maintain an important resource in the counties (i.e., agricultural land), inconsistency in this case will indicate a significant impact under CEQA because the resulting loss of the agricultural land resources will be an environmental effect. No mitigation is available for these impacts; therefore, this impact

1 would be significant and unavoidable. DWR finds this remaining significant and
2 unavoidable impact to be acceptable because the environmental, economic, legal, social,
3 technological, and other benefits outweigh and override this and the other significant and
4 unavoidable environmental impacts of the project for the reasons set forth in Section 3.0,
5 “Statement of Overriding Considerations,” of this document.

6 Impact LUP-4: Physically Divide or Disrupt an Established Community—Project-Level.

7 **Mitigation**

8 Mitigation Measure LUP-4: Implement Vehicular Traffic Detour Planning—Project-Level.

9 This mitigation measure is the same as Mitigation Measure TRN-7 described below
10 under “Transportation and Infrastructure.”

11 **Finding**

12 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
13 LUP-4 will reduce potentially significant impacts resulting from intermittent road
14 closures to a less-than-significant level because Reclamation will prepare a long-term
15 vehicular detour plan for routes that may be inundated as a result of the release of Interim
16 and Restoration flows, in accordance with current Caltrans Standard Plans and
17 Specifications. The detour plan will include an assessment of existing roadway
18 conditions, whether paved or unpaved; will provide convenient and parallel vehicular
19 traffic detours for routes closed; and will have provisions for repair and maintenance if
20 the roadway conditions are substantially degraded from increased use.

21 Impact LUP-5: Substantial Diminishment of Agricultural Land Resource Quality and
22 Importance Because of Altered Inundation and/or Soil Saturation—Project-Level.

23 **Mitigation**

24 Mitigation Measure LUP-5: Preserve Agricultural Productivity of Important Farmland to
25 Minimize Effects of Inundation and Saturation Effects—Project-Level.

26 If groundwater seepage effects cannot be avoided or are addressed by compensating
27 affected landowners resulting in conversion of agricultural land to nonagricultural use or
28 a reduction in productivity of agricultural land, Reclamation will implement the
29 following measures to minimize effects of inundation and saturation of agricultural land
30 by Interim and Restoration flows:

- 31 • During Interim Flows, Reclamation will determine the acreage of Important
32 Farmland that after implementation of the Physical Monitoring and Management
33 Plan would still be affected by inundation and/or soil saturation resulting from
34 Interim or Restoration flows to an extent sufficient to convert Important Farmland
35 to nonagricultural use. This would result in this land no longer being classified as
36 Important Farmland. This acreage of Important Farmland may be identified
37 through flow, groundwater, and groundwater seepage monitoring and modeling
38 included in the action alternatives, through alternative or additional monitoring or

1 modeling, as necessary, and through consideration of feedback provided by
 2 landowners through the Seepage and Conveyance Technical Feedback
 3 Workgroup or similar mechanism.

- 4 • Reclamation will, as necessary, either (1) acquire agricultural conservation
 5 easements at a 1:1 ratio (i.e., acquire easements on 1 acre for each 1 acre of
 6 Important Farmland removed from agricultural use) to be held by land trusts or
 7 public agencies who are responsible for enforcement of the deed restrictions
 8 maintaining these lands in agricultural use, or (2) provide funds to a land trust or
 9 government program that conserves agricultural land sufficient to obtain
 10 easements on comparable land at a 1:1 ratio.

11 ***Finding***

12 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
 13 LUP-5 will lessen impacts associated with the loss of agricultural land resource quality
 14 and importance because of altered and/or soil inundation. If groundwater seepage effects
 15 cannot be avoided or are addressed by compensating affected landowners, the agricultural
 16 productivity of Important Farmland will be preserved to the extent feasible because the
 17 acreage of Important Farmland converted to nonagricultural uses from Interim or
 18 Restoration flows will be determined and mitigation for the conversion of Important
 19 Farmland to nonagricultural uses will occur through acquisition of agricultural
 20 conservation easements at a 1:1 ratio or through providing funds to a land trust or
 21 government program that conserves agricultural land sufficient to obtain easements on
 22 comparable land at a 1:1 ratio for the acreage of Important Farmland. However,
 23 Mitigation Measure LUP-5 will not reduce the impact to a less-than-significant level
 24 because a substantial amount of Important Farmland may still be converted, and no
 25 additional mitigation measures exist to fully mitigate the loss of this Important Farmland.
 26 Therefore, this impact would remain potentially significant and unavoidable after
 27 mitigation. DWR finds this remaining potentially significant and unavoidable impact to
 28 be acceptable because the environmental, economic, legal, social, technological, and
 29 other benefits outweigh and override this and the other significant and unavoidable
 30 environmental impacts of the project for the reasons set forth in Section 3.0, “Statement
 31 of Overriding Considerations,” of this document.

32 **Impact LUP-8: Substantial Diminishment of Agricultural Land Resource Quality and**
 33 **Importance Because of Altered Water Deliveries—Project-Level.**

34 ***Mitigation***

35 No mitigation is available.

36 ***Finding***

37 For the reasons stated in the PEIS/R, DWR finds that water deliveries to Friant Division
 38 long-term contractors will be reduced, which will result in a shortfall of surface water
 39 supplies during some dry years and, thus, will result in additional groundwater pumping,
 40 changes in agricultural practices (e.g., crop selection), and idling of cropland. No
 41 alternative supply of water to Friant long-term contractors is feasible for Reclamation,

1 and no mitigation measures exist to reduce impacts associated with diminishment of
2 agricultural land resource quality and importance because of altered water deliveries.
3 Therefore, this impact would be significant and unavoidable. DWR finds this remaining
4 significant and unavoidable impact to be acceptable because the environmental,
5 economic, legal, social, technological, and other benefits outweigh and override this and
6 the other significant and unavoidable environmental impacts of the project for the reasons
7 set forth in Section 3.0, “Statement of Overriding Considerations,” of this document.

8 **Noise**

9 **Impact NOI-1: Exposure of Sensitive Receptors to Generation of Temporary and Short-Term**
10 **Construction Noise—Program-Level.**

11 ***Mitigation***

12 **Mitigation Measure NOI-1: Implement Measures to Reduce Temporary and Short-Term Noise**
13 **Levels from Construction-Related Equipment Near Sensitive Receptors—Program-Level.**

14 Project proponents of subsequent site-specific projects will ensure that the following
15 noise-reduction protocol measures are implemented during construction for actions
16 implemented under the action alternatives to reduce temporary and short-term
17 construction-related noise impacts near sensitive receptors:

- 18 • Conduct a preliminary noise analysis report to determine future program
19 construction noise levels at sensitive receptors based on, but not limited to, a
20 detailed construction equipment list, construction schedule, ground attenuation
21 factors, and distances to sensitive receptors located within 500 feet of future
22 program construction sites.
- 23 • Provided that future program construction noise results in significant impacts at
24 sensitive receptors, the following mitigation measures shall be implemented:
 - 25 – Equipment will be used as far away as practical from noise-sensitive uses.
 - 26 – Construction equipment will be properly maintained per manufacturers’
27 specifications and fitted with the best available noise suppression devices
28 (e.g., mufflers, silencers, wraps). All impact tools will be shrouded or
29 shielded, and all intake and exhaust ports on power equipment will be muffled
30 or shielded.
 - 31 – Equipment that is quieter than standard equipment will be used, including
32 electrically powered equipment instead of internal combustion equipment
33 where use of such equipment is a readily available substitute that
34 accomplishes program tasks in the same manner as internal combustion
35 equipment.
 - 36 – Construction site and haul road speed limits will be established and enforced.

- 1 – The use of bells, whistles, alarms, and horns will be restricted to safety and
2 warning purposes only.
- 3 – Construction equipment will not idle for extended periods of time when not
4 being used during construction activities.
- 5 – When construction activities are conducted within 2,000 feet of noise-
6 sensitive uses, noise measurements will be taken at the nearest noise-sensitive
7 land uses relative to construction activities with a sound-level meter that
8 meets the standards of the American National Standards Institute (ANSI
9 Section S14 1979, Type 1 of Type 2). This would allow that construction
10 noise levels associated with the restoration program to comply with applicable
11 daytime and nighttime noise standards. When construction noise exceeds
12 applicable daytime and nighttime standards, berms, or stockpiles will be used
13 in an attempt to lower noise levels to within acceptable nontransportation
14 standards. If noise levels are still determined to exceed noise standards,
15 temporary barriers will be erected as close to the construction activities as
16 feasible, breaking the line of sight between the source and receptor where
17 noise levels exceed applicable standards. All acoustical barriers would be
18 constructed with material having a minimum surface weight of 2 pounds per
19 square foot or greater and a demonstrated Sound Transmission Class (STC)
20 rating of 25 or greater, as defined by Test Method E90 of the American
21 Society for Testing and Materials. Placement, orientation, size, and density of
22 acoustical barriers will be specified by a qualified acoustical consultant.
- 23 – A disturbance coordinator will be designated to post contact information in a
24 conspicuous location near the construction site entrance so that it is clearly
25 visible to nearby receivers most likely to be disturbed. The coordinator will
26 manage complaints resulting from the construction noise. Reoccurring
27 disturbances will be evaluated by a qualified acoustical consultant to ensure
28 compliance with applicable standards. The disturbance coordinator will
29 contact nearby noise-sensitive receptors, advising them of the construction
30 schedule.

31 ***Finding***

32 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
33 NOI-1 will reduce impacts associated with the exposure of sensitive receptors to
34 temporary and short-term construction noise because construction equipment will be
35 properly maintained and operated as far away as practical from noise-sensitive uses;
36 berms, stockpiles, or other temporary barriers will be erected as close to the construction
37 activities as feasible to reduce noise levels; and construction site and haul road speed
38 limits will be established and enforced. However, implementing Mitigation Measure
39 NOI-1 may not reduce noise levels at all times to a less-than-significant level because of
40 the potential close proximity of noise-sensitive receptors to construction activities and the
41 limited feasibility of mitigating construction noise to acceptable levels. Therefore, this
42 impact would remain potentially significant and unavoidable after mitigation. DWR finds
43 this remaining potentially significant and unavoidable impact to be acceptable because

1 the environmental, economic, legal, social, technological, and other benefits outweigh
2 and override this and the other significant and unavoidable environmental impacts of the
3 project for the reasons set forth in Section 3.0, “Statement of Overriding Considerations,”
4 of this document.

5 **Impact NOI-2: Exposure of Sensitive Receptors to Increased Off-Site Traffic Noise Levels—**
6 **Program-Level.**

7 ***Mitigation***

8 **Mitigation Measure NOI-2: Implement Measures to Reduce Temporary Noise Levels from**
9 **Construction-Related Traffic Increases Near Sensitive Receptors—Program-Level.**

10 If impacts under subsequent site-specific projects are found to have the potential to cause
11 significant or potentially significant impacts during site-specific studies, proponents of
12 those projects will ensure that the following noise-reduction protocol measures are
13 implemented during construction for actions implemented under the action alternatives
14 that would affect the roadway network/system to reduce temporary and short-term
15 construction-related noise impacts near sensitive receptors:

- 16 • Conduct a preliminary noise analysis report to determine future program haul
17 routes for construction-related traffic noise associated with Settlement actions,
18 and conduct a traffic noise analysis for individual actions to establish existing
19 average daily traffic volumes, fleet mixes (percentages of automobiles, medium-
20 duty trucks, and heavy-duty trucks during daytime, evening, and nighttime hours),
21 and vehicle speeds along designated haul-route roadways.
- 22 • Provided that future program construction haul route noise results in significant
23 impacts at sensitive receptors, the following mitigation measures shall be
24 implemented:
 - 25 – Conduct a noise survey to determine ground attenuation factors, roadway
26 grades, and distances to sensitive receptors along designated haul-route
27 roadways.
 - 28 – Model existing traffic noise levels for comparison of construction-related
29 traffic noise level increases along haul-route roadway segments using the
30 FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) or other
31 acceptable traffic noise prediction models (e.g., TNM, Soundplan).
 - 32 – Identify roadway segments along haul routes that result in a substantial
33 increase of construction-related traffic noise levels caused by SJRRP actions.
 - 34 – Develop and implement project-specific mitigation measures to reduce
35 construction-related traffic noise-level increases on haul routes near sensitive
36 resources to include, but not be limited to the following:
 - 37 ■ reduce haul truck operation speeds

- 1 ▪ limit the amount of borrow site material to be hauled daily
- 2 ▪ limit the hours of operation for haul trucks
- 3 ▪ install temporary noise barriers adjacent to sensitive receptor locations
- 4 – Equip all heavy trucks with noise-control devices (e.g., mufflers) in
- 5 accordance with manufacturers’ specifications.
- 6 – Inspect all heavy trucks periodically to ensure proper maintenance and
- 7 presence of noise-control devices (e.g., lubrication, non-leaking mufflers, and
- 8 shrouding).

9 ***Finding***

10 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
 11 NOI-1 will reduce impacts associated with the exposure of sensitive receptors to
 12 increased off-site traffic noise levels because project-specific mitigation measures will be
 13 developed based on noise surveys and the results of traffic modeling. However,
 14 implementing Mitigation Measure NOI-2 may not reduce noise levels at all times to a
 15 less-than-significant level for some haul routes because of the potential close proximity
 16 of noise-sensitive receptors to haul routes, potential site restrictions when installing
 17 temporary noise barriers, and the limited feasibility of mitigating construction noise to
 18 acceptable levels. Therefore, this impact would remain potentially significant and
 19 unavoidable after mitigation. DWR finds this remaining potentially significant and
 20 unavoidable impact to be acceptable because the environmental, economic, legal, social,
 21 technological, and other benefits outweigh and override this and the other significant and
 22 unavoidable environmental impacts of the project for the reasons set forth in Section 3.0,
 23 “Statement of Overriding Considerations,” of this document.

24 **Impact NOI-3: Exposure of Sensitive Receptors to Long-Term Operation-Related Noise**
 25 **Levels from Stationary Sources—Program-Level.**

26 ***Mitigation***

27 **Mitigation Measure NOI-3: Implement Measures to Reduce Long-Term Operation-Related**
 28 **Noise Levels from Stationary Sources on Sensitive Receptors—Program-Level.**

29 Project proponents of subsequent site-specific projects will conduct a preliminary noise
 30 analysis report to determine future operation-related noise and distances to sensitive
 31 receptors. Provided that future operation-related noise results in significant impacts at
 32 sensitive receptors, project proponents of subsequent site-specific projects will
 33 incorporate into the construction design measures such as a structure encasing the new
 34 pumping infrastructure. Materials (masonry brick, metal shed, wood) used to house the
 35 pumping infrastructure will be of solid construction and void of gaps at the ground, roof
 36 line, and joints. All vents will include acoustically rated louvers.

1 **Finding**

2 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
3 NOI-3 will reduce potentially significant impacts resulting from long-term operation-
4 related noise level from stationary sources to a less-than-significant level because project
5 proponents will conduct a preliminary noise analysis report to determine future
6 operation-related noise and distances to sensitive receptors. Where future operation-
7 related noise may result in significant impacts at sensitive receptors, the construction
8 design measures, such as a structure encasing the new pumping infrastructure, will be
9 incorporated into project designs.

10 **Impact NOI-4: Exposure of Sensitive Receptors to Increased Noise Levels from Borrow Site-
11 Related Activities—Program-Level.**

12 **Mitigation**

13 **Mitigation Measure NOI-4: Implement Measures to Reduce Borrow Site Noise Levels Near
14 Sensitive Receptors—Program-Level.**

15 Project proponents of subsequent site-specific projects will ensure that measures such as
16 the following noise-reduction protocol measures are implemented for actions
17 implemented under the action alternatives that requires the use of borrow sites near
18 sensitive receptors:

- 19 • Conduct a preliminary noise analysis report to determine future construction-
20 related program borrow site noise based on, but not limited to, a detailed
21 equipment list, hours of operation, ground attenuation factors, and distances to
22 sensitive receptors located within 500 feet of future program borrow sites.
- 23 • Provided that future program borrow site noise results in significant impacts at
24 sensitive receptors, the following mitigation measures shall be implemented:
 - 25 – Evaluate resultant borrow site activity noise levels at sensitive receptor
26 locations, taking into account distance, site topography, and ground type.
 - 27 – Identify sensitive receptors that would experience borrow site noise levels that
28 exceed applicable noise standards.
 - 29 – Incorporate the use of stockpiles, dumpsters, trailers, or inactive heavy-duty
30 equipment to perform as temporary barriers. If noise levels are still
31 determined to exceed noise standards, temporary barriers will be erected as
32 close to the construction activities as feasible, breaking the line of sight
33 between the source and the receptor where noise levels exceed applicable
34 standards. All acoustical barriers will be constructed with material having a
35 minimum surface weight of 2 pounds per square foot or greater and a
36 demonstrated STC rating of 25 or greater, as defined by Test Method E90 of
37 the American Society for Testing and Materials. Placement, orientation, size,
38 and density of acoustical barriers will be specified by a qualified acoustical
39 consultant.

- 1 – Limit borrow site activities to daytime hours only when in close proximity to
2 sensitive receptors, to avoid the more sensitized state of receptors typical of
3 evening and nighttime hours.

4 ***Finding***

5 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
6 NOI-4 will reduce potentially significant impacts resulting from borrow site-related noise
7 to a less-than-significant level because project proponents will ensure that protocol
8 measures are implemented in areas where borrow sites are near sensitive receptors. These
9 protocol measures will include conducting a preliminary noise analysis report to
10 determine future construction-related program borrow site noise; evaluating resultant
11 borrow site activity noise levels at sensitive receptor locations; identifying sensitive
12 receptors that will experience borrow site noise levels that exceed applicable noise
13 standards; incorporating the use of stockpiles, dumpsters, trailers, or inactive heavy-duty
14 equipment to perform as temporary barriers; and limiting borrow site activities to daytime
15 hours only when in close proximity to sensitive receptors.

16 **Impact NOI-5: Exposure of Sensitive Receptors to or Generation of Excessive Groundborne
17 Vibration—Program-Level.**

18 ***Mitigation***

19 **Mitigation Measure NOI-5: Implement Measures to Reduce Temporary and Short-term
20 Groundborne Noise and Vibration Levels Near Sensitive Receptors—Program-Level.**

21 Project proponents of subsequent site-specific projects will ensure that the following
22 protocol measures are implemented during construction for actions implemented under
23 the action alternatives to reduce temporary and short-term groundborne noise and
24 vibration levels on sensitive receptors:

- 25 • Conduct a preliminary groundbourne noise and vibration analysis report to
26 determine future construction-related program groundbourne noise and vibration
27 levels based on, but not limited to, a detailed equipment list, hours of operation
28 and distances to sensitive receptors located within 500 feet of future program
29 borrow sites.
- 30 • Provided that future program groundbourne noise and vibration results in
31 significant impacts at sensitive receptors, the following mitigation measures shall
32 be implemented:
 - 33 – A disturbance coordinator will be designated and this person’s contact
34 information will be posted in a location near construction areas where it is
35 clearly visible to the nearby receptors most likely to be disturbed. The
36 coordinator would manage complaints and concerns resulting from activities
37 that cause vibrations. The severity of the vibration concern should be assessed
38 by the coordinator and, if necessary, evaluated by a qualified noise and
39 vibration control expert.

- 1 – Vibration monitoring will be conducted before and during pile driving
2 operations occurring within 100 feet of historic structures. Every attempt will
3 be made to limit construction-generated vibration levels during pile driving
4 and other groundbourne noise and vibration-generating activities in the
5 vicinity of the historic structures in accordance with Caltrans
6 recommendations.
- 7 – Adjacent historic features will be covered or temporarily shored, as necessary,
8 for protection from vibrations, in consultation with the appropriate cultural
9 resources authority.
- 10 – Pile driving required within a 50-foot radius of residences will use alternative
11 installation methods where possible (e.g., pile cushioning, jetting, predrilling,
12 cast-in-place systems, resonance-free vibratory pile drivers). This would
13 reduce the number and amplitude of blows required to seat the pile.
- 14 – Pile-driving activities conducted within 285 feet of sensitive receptors will
15 occur during daytime hours to avoid sleep disturbance during evening and
16 nighttime hours.

17 ***Finding***

18 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
19 NOI-5 will reduce potentially significant impacts resulting from excessive groundbourne
20 vibration to a less-than-significant level because project proponents will ensure that
21 protocol measures are implemented during construction in areas where temporary and
22 short-term groundbourne noise and vibration levels can affect sensitive receptors. These
23 protocol measures will include conducting preliminary groundbourne noise and vibration
24 testing to determine future construction-related program groundbourne noise and
25 vibration levels, designating a disturbance coordinator to manage complaints and
26 concerns resulting from activities that cause vibrations, monitoring vibration levels,
27 alternating installation methods, and limiting pile-driving to daytime hours when
28 activities will occur 285 feet from sensitive receptors.

29 **Paleontological Resources**

30 **Impact PAL-1: Possible Damage to or Destruction of Unique Paleontological Resources—**
31 **Program-Level.**

32 ***Mitigation***

33 **Mitigation Measure PAL-1: Stop Work if Paleontological Resources Are Encountered During**
34 **Earthmoving Activities and Implement Recovery Plan—Program-Level.**

35 To minimize potential adverse impacts on unique, scientifically important paleontological
36 resources during earthmoving activities, Mitigation Measure PAL-1 would be
37 implemented by the project proponent during construction for any action implemented
38 under the Settlement to reduce possible damage to unique paleontological resources, as
39 described below.

1 If paleontological resources are discovered during earthmoving activities, the
2 construction crew would immediately cease work in the vicinity of the find. A qualified
3 paleontologist would be retained to evaluate the resource and prepare a recovery plan in
4 accordance with SVP guidelines. The recovery plan may include a field survey,
5 construction monitoring, sampling and data recovery procedures, museum storage
6 coordination for any specimen recovered, and a report of findings. Recommendations in
7 the recovery plan would be implemented before construction activities could resume at
8 the site where the paleontological resources were discovered.

9 ***Finding***

10 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
11 PAL-1 will reduce potentially significant impacts on paleontological resources to a less-
12 than-significant level because any paleontological resources discovered during
13 earthmoving activities will be evaluated, recovered, and recorded in accordance with
14 SVP guidelines before construction activities resume at the site where the paleontological
15 resources are discovered.

16 **Public Health and Hazardous Materials**

17 **Impact PHH-1: Exposure of Construction Workers and Others to Hazardous Materials—**
18 **Program-Level.**

19 ***Mitigation***

20 **Mitigation Measure PHH-1: Conduct Phase I Environmental Site Assessments—Program-**
21 **Level.**

22 Project proponents of subsequent site-specific projects will conduct a Phase I
23 Environmental Site Assessment to determine the presence of any hazardous materials at
24 all construction sites at which ground-disturbing activities would occur. Project
25 proponents of subsequent site-specific projects will implement all the recommended
26 actions and measures identified in the Phase I Environmental Site Assessment.

27 ***Finding***

28 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
29 PHH-1 will reduce potentially significant impacts to a less-than-significant level because
30 project proponents of subsequent site-specific projects will be required to conduct a
31 Phase I Environmental Site Assessment that identifies any hazardous materials at all
32 construction sites at which ground-disturbing activities will occur and to implement all
33 recommended actions and measures identified in the Phase I Environmental Site
34 Assessment.

35 **Impact PHH-4: Exposure to Diseases—Program-Level.**

36 ***Mitigation***

37 **Mitigation Measure PHH-4: Implement Workplace Precautions against West Nile Virus and**
38 **Valley Fever—Program-Level.**

1 Project proponents of subsequent site-specific projects will implement the following
2 workplace precautions against WNV and Valley Fever at construction sites:

- 3 • Inspect work areas, eliminate sources of standing water that could potentially
4 provide breeding habitat for mosquitoes. For example, eliminate uncovered,
5 upright containers that could accumulate water; store open containers in the work
6 area; and fill or drain potholes and other areas where water is likely to
7 accumulate.
- 8 • Conduct employee training that covers the potential hazards and risks of WNV
9 and Valley Fever exposure and protection, including proper construction apparel.
10 Employees will be instructed not to touch any dead birds with their bare hands.
- 11 • Provide dust masks for worker use at construction sites during ground-disturbing
12 activities.
- 13 • Provide insect repellent for worker use at construction sites with a minimum of
14 23.8 percent diethyl(meta)toulamide (DEET).
- 15 • Notify the appropriate city or county health department of dead birds seen on the
16 construction site.

17 ***Finding***

18 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
19 PHH-4 will reduce impacts related to exposure to diseases to a less-than-significant level
20 by requiring project proponents to inspect work areas, eliminate sources of standing
21 water that potentially may provide breeding habitat for mosquitoes, conduct employee
22 training that covers the potential hazards and risks of WNV and Valley Fever exposure
23 and protection, provide dust masks for worker use at construction sites during ground-
24 disturbing activities, provide insect repellent for worker use at construction sites, and
25 notify the appropriate city or county health department of dead birds that are seen on the
26 construction site.

27 Impact PHH-5: Creation of a Substantial Hazard to School Safety—Program-Level.

28 ***Mitigation***

29 Mitigation Measure PHH-5: Minimize Hazards to School Safety—Program-Level.

30 Project proponents of subsequent site-specific projects will notify all schools, or the
31 related school district, located within one-quarter mile of a construction area regarding
32 the construction activities that would occur and when, the type of potential hazards that
33 could be encountered, and provide guidance to the school(s) on the potential effects that
34 the hazards could have on school children.

35 ***Finding***

36 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
37 PHH-5 will reduce potentially significant impacts related to safety hazards near schools

1 to a less-than-significant level by requiring project proponents to notify all schools, or the
 2 related school district, located within one-quarter mile of a construction area; identify the
 3 type of potential hazards that may be encountered; and provide guidance to the school(s)
 4 on the potential effects that the hazards may have on school children.

5 **Impact PHH-6: Creation of a Substantial Hazard from Idle and Abandoned Wells—Program-**
 6 **Level.**

7 ***Mitigation***

8 **Mitigation Measure PHH-6: Minimize Hazards from Idle and Abandoned Wells—Program-**
 9 **Level.**

10 Project proponents of subsequent site-specific projects will survey all project sites for
 11 unknown idle and abandoned wells before initiating ground-disturbing activities. If the
 12 survey discovers an idle or abandoned well, ground-disturbing activities will not occur
 13 within 100 feet of the well, if feasible. If ground-disturbing activities need to occur within
 14 100 feet of the abandoned well, project proponents of subsequent site-specific projects
 15 will either cover, fence, or otherwise clearly mark the well location and take measures to
 16 reduce hazards to workers and/or ensure that the well has been abandoned in accordance
 17 with State and local regulations, whichever is appropriate for the site and construction
 18 project. The Fresno County Department of Public Health (FCDPH), Merced County
 19 Department of Environmental Health, or Madera County Department of Environmental
 20 Health will be notified, as appropriate.

21 ***Finding***

22 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
 23 PHH-6 will reduce potentially significant impacts related to idle and abandoned wells to
 24 a less-than-significant level because project proponents will be required to survey all
 25 project sites for unknown idle and abandoned wells before initiating ground-disturbing
 26 activities; to cover, fence, or otherwise clearly mark all wells within 100 feet of ground-
 27 disturbing activities; and to abandon the wells in accordance with state and local
 28 regulations.

29 **Impact PHH-9: Exposure to Diseases in the San Joaquin River upstream from Friant Dam, in**
 30 **the Restoration Area, and in the San Joaquin River from Merced River to the Delta—Project-**
 31 **Level.**

32 ***Mitigation***

33 **Mitigation Measure PHH-9: Coordinate with and Support Vector Control District(s)—Project-**
 34 **Level.**

35 Reclamation will coordinate with and support FCDPH-Vector Control, Merced County
 36 Mosquito Abatement District, and the Madera County Mosquito and Vector Control
 37 District with implementation of their vector control activities in response to project-level
 38 actions as appropriate and feasible. Support will include but not be limited to the
 39 following actions:

- 1 • Coordinate with FCDPH-Vector Control, Merced County Mosquito Abatement
2 District, and the Madera County Mosquito and Vector Control District to inform
3 vector control districts regarding project implementation, and to provide
4 information requested to support vector control activities along waterways
5 affected by project-level actions. Provide FCDPH-Vector Control, Merced
6 County Mosquito Abatement District, and Madera County Mosquito and Vector
7 Control District alternative access as needed for vector monitoring and control in
8 the Restoration Area where the program would eliminate existing access.

- 9 • Implement applicable best management practices from the California Department
10 of Public Health’s Best Management Practices for Mosquito Control on California
11 State Properties (CDPH 2008).

- 12 • Provide public information for the community regarding control measures being
13 implemented in the Restoration Area, the risk of mosquito-borne disease
14 transmission, and personal protective measures.

15 ***Finding***

16 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
17 PHH-9 will reduce potentially significant impacts related to exposure to diseases to a
18 less-than-significant level because Reclamation will coordinate with and support
19 FCDPH-Vector Control, Merced County Mosquito Abatement District, and the Madera
20 County Mosquito and Vector Control District with implementation of their vector control
21 activities in response to project-level actions, as appropriate and feasible.

22 **Recreation**

23 **Impact REC-4: Effects of Reintroducing Salmon to the Restoration Area on Reach 1 Angling**
24 **Opportunities—Program Level.**

25 ***Mitigation***

26 **Mitigation Measure REC-4: Enhance Fishing Access and Fish Populations on the Kings**
27 **River below Pine Flat Dam—Program Level.**

28 The project proponent would mitigate trout fishing opportunities lost on the San Joaquin
29 River below Friant Dam because of Settlement actions by enhancing public fishing
30 access and trout populations on the Kings River below Pine Flat Dam. Specific actions to
31 enhance fishing access would be developed in cooperation with the Kings River
32 Conservancy and State and local agencies participating in ongoing park and river access
33 construction and enhancement projects. Example projects include construction of the
34 Kings River Access Park or similar facilities to provide anglers and others with amenities
35 such as nonmotorized boat launches, parking areas, restrooms, information kiosks, and
36 picnic tables. In addition, specific actions to enhance trout populations could be
37 developed in cooperation with the Kings River Water Association, Kings River
38 Conservation District, and DFG in support of the Kings River Fisheries Management
39 Program Framework Agreement and Fisheries Management Program. Specific actions to
40 enhance trout populations may include fish habitat enhancement projects in the river, fish

1 stocking, and fish population monitoring. Actions could also include hatchery production
2 of catchable trout, particularly if the San Joaquin Hatchery reduces trout production as a
3 result of producing salmon in support of implementing the Settlement.

4 ***Finding***

5 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
6 REC-4 will reduce potentially significant impacts related to effects of reintroducing
7 salmon to the restoration area to a less-than-significant level because the project
8 proponent will be required to enhance public fishing access and trout populations on the
9 Kings River below Pine Flat Dam through coordination with the Kings River
10 Conservancy, the Kings River Water Association, Kings River Conservation District, and
11 DFG, in support of the Kings River Fisheries Management Program Framework
12 Agreement and Fisheries Management Program.

13 **Impact REC-5: Effects on Reach 1 Warm-Water Angling Opportunities from Program Actions**
14 **within the Restoration Area—Program-Level.**

15 ***Mitigation***

16 **Mitigation Measure REC-5: Enhance Warm-Water Fishing Access and Fish Populations in**
17 **the Vicinity of the San Joaquin River below Friant Dam—Program Level.**

18 The project proponent would mitigate warm-water fishing opportunities that may be lost
19 as a result of filling or isolating gravel pit ponds in the floodplain of Reach 1 of the San
20 Joaquin River by enhancing remaining warm-water fishing opportunities or creating new
21 opportunities in the vicinity. Specific actions to enhance warm-water fishing
22 opportunities would be developed in cooperation with the SJRC, the SJRPCT, DFG,
23 Fresno County, and other agencies participating in management of the San Joaquin River
24 Parkway. Enhancement actions could include improvements to facilities such as
25 Sycamore Island Park (owned by the SJRC and operated by a concessionaire) and
26 Woodward Park (owned and operated by the City of Fresno) where warm-water fishing
27 opportunities exist and will remain. Creation of new opportunities could occur through
28 development of new ponds in the vicinity of the parkway but in locations that would not
29 create potential conflicts with Settlement goals. A potential location for development of a
30 new pond is Fresno County's Lost Lake Park, close to Friant Dam, where a recent Master
31 Plan update has proposed creation of a new pond. The number and extent of mitigation
32 actions necessary would depend on the amount of publicly accessible warm-water fishing
33 access lost as a result of Settlement actions.

34 ***Finding***

35 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
36 REC-5 will reduce potentially significant impacts related to effects on Reach 1 warm-
37 water angling opportunities from program actions within the Restoration Area to a less-
38 than-significant level because the project proponent will be required to enhance
39 remaining warm-water fishing opportunities or create new opportunities in the vicinity of
40 Reach 1 of the San Joaquin River where warm-water fishing opportunities are lost as a
41 result of filling or isolating gravel pit ponds. Specific actions to enhance warm-water

1 fishing opportunities will be developed in cooperation with the SJRC, the SJRPCT, DFG,
2 Fresno County, and other agencies participating in management of the San Joaquin River
3 Parkway.

4 **Impact REC-9: Effects on Recreation Opportunities from Earlier Seasonal Drawdown of**
5 **Millerton Lake Related to Timing of Release of Interim and Restoration Flows—Project-**
6 **Level.**

7 ***Mitigation***

8 **Mitigation Measure REC-9: Extend Millerton Lake Boat Ramps or Construct a New Low-**
9 **water Ramp to Allow Boat Launching at the Lower Pool Elevations that May Result from**
10 **Interim and Restoration Flows during Dry and Critical-High Years—Project-Level.**

11 Reclamation will monitor Millerton Lake pool elevations and, if pool elevations fall
12 below the toe elevations of the two lowest-reaching boat ramps (which are at McKenzie
13 Cove and Meadows), Reclamation will mitigate by either extending existing low-water
14 launch ramp(s), developing a new ramp, or providing other temporary access to avoid
15 loss of launching capacity and to permit boats to be launched on the lake with an
16 additional 10 to 15 feet of drawdown during mid- and late-summer of Dry and Critical-
17 High water years. Specific actions to modify or relocate facilities in the Millerton Lake
18 SRA will be developed within two years. Implementation would be financed by
19 Reclamation in coordination with DPR.

20 ***Finding***

21 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
22 REC-9 will reduce potentially significant impacts resulting from earlier seasonal
23 drawdown of Millerton Lake to a less-than-significant level because Reclamation will
24 extend existing low-water launch ramp(s), develop a new ramp, or provide other
25 temporary access to avoid loss of launching capacity and to permit boats to be launched
26 on the lake with an additional 10 to 15 feet of drawdown during mid- and late-summer of
27 the driest years.

28 **Impact REC-12: Effects on Boating Opportunities from Increased Flow in the Restoration**
29 **Area—Project-Level.**

30 ***Mitigation***

31 **Mitigation Measure REC-12: Develop and Implement Recreation Outreach Program—**
32 **Project-Level.**

33 Reclamation will develop and implement a recreation outreach program, and will prepare
34 and implement a recreation outreach plan. The plan will be completed within 1 year of
35 the signing of the Record of Decision. Until such time as the plan is in place,
36 Reclamation will continue to implement the recreation outreach plan developed for the
37 most recent Interim Flows Project.

1 The purpose of the recreation outreach program will be to inform the recreating public as
 2 well as agencies and organizations that serve the recreating public and protect public
 3 safety, of changes in river flows that would occur as a result of the Restoration Flows,
 4 and of the potential effects associated with those changes, including recreational boating
 5 hazards, particularly in Reach 1. The program will also inform the public of similar
 6 alternative boating opportunities in the area, such as those available on the lower Kings
 7 River below Pine Flat Reservoir.

8 The outreach program will make use of a variety of methods and media to share
 9 information with the recreating public. Communication methods and actions may
 10 include:

- 11 • Messages posted on the SJRRP Web site and Web sites of agencies and
 12 organizations providing recreation access, facilities, and services and public
 13 safety services in each reach.
- 14 • Signage at public and private access points and facilities in each reach.
- 15 • Verbal messages delivered as part of regular recreation programs offered by
 16 agencies and organizations, such as the Public Canoe Program conducted by the
 17 SJRPCT.
- 18 • Signage to advise boaters of hazardous conditions and alternative locations for
 19 boating will comply with waterway marker requirements contained in CCR Title
 20 14, Sections 7000 through 7007, under the authority of DBW.
- 21 • Attendance of a SJRRP representative at selected public events focused on San
 22 Joaquin River recreation, or the display and distribution of printed material at
 23 such events.
- 24 • Outreach will target both English-speaking and non-English-speaking residents.
 25 Additional measures, such as roving contacts and other methods that agencies
 26 may suggest, will be used to ensure target audiences that may not be reached by
 27 other means, such as young adults and those recreating on the river in
 28 undeveloped areas, will be reached.

29 Central to the outreach program would be coordination with agencies and organizations
 30 that provide recreation access, facilities, and services in each reach. Specifically, this
 31 would include the following public and nonprofit agencies and organizations: the
 32 SJRPCT, SJRC, Fresno County, City of Fresno Parks, After School, Recreation, and
 33 Community Service (PARCS) Department, and DFG.

34 Because boaters, swimmers, and waders may encounter less safe boating, swimming, and
 35 wading conditions due to Interim and Restoration flows, and may need assistance or may
 36 generate public nuisances (such as open fires) in areas that had not been commonly used
 37 or in previously dry river areas that may be less familiar to response agencies, key
 38 partners to help protect public safety will also include all emergency rescue, response,

1 and enforcement agencies in all reaches expected to experience expanded recreation
2 activity.

3 ***Finding***

4 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
5 REC-12 will reduce significant impacts on boating opportunities to a less-than-significant
6 level because Reclamation will develop and implement a recreation outreach program
7 that informs the recreating public as well as agencies and organizations that serve the
8 recreating public and protect public safety, of changes in river flows that would occur as
9 a result of the Restoration Flows, and of the potential effects associated with those
10 changes, including recreational boating hazards, particularly in Reach 1.

11 **Transportation and Infrastructure**

12 **Impact TRN-1: Reduced Traffic Circulation and Roadway Capacity—Program-Level.**

13 ***Mitigation***

14 **Mitigation Measure TRN-1: Minimize Short-term Impacts on Traffic Circulation and Roadway
15 Capacity—Program-Level.**

16 To minimize impacts on traffic circulation and roadway capacity, including emergency
17 vehicle access, the project proponent will implement the following measures:

- 18 • Require construction contractors to limit truck trips to less than 50 per hour on
19 any affected roadway during the morning and afternoon or evening peak hour
20 periods, if feasible.
- 21 • Before construction, prepare a traffic management plan that identifies the number
22 of truck trips, time of day for arrival and departure of trucks, limits on number of
23 truck trips, and traffic circulation control measures. Control measures typically
24 include advertising planned lane closures, warning signage, a flag person to direct
25 traffic flows when needed, and methods for maintaining continued access by
26 emergency vehicles. During project construction, access to existing land uses will
27 be maintained at all times, with detours used as necessary during road closures.
- 28 • Submit the traffic management plan to the appropriate county public works, fire,
29 police, and sheriff departments for comments.
- 30 • Implement the traffic management plan and feasible recommendations by the
31 appropriate departments.

32 ***Finding***

33 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
34 TRN-1 will lessen potentially significant impacts associated with reduced traffic
35 circulation and roadway capacity because construction contractors will be required to
36 limit truck trips to less than 50 per hour on any affected roadway during the morning and
37 afternoon or evening peak hour periods, if feasible. In addition, the project proponent will
38 be required to prepare a traffic management plan; submit the traffic management plan to

1 the appropriate county public works, fire, police, and sheriff departments for comments;
 2 and implement the traffic management plan and feasible recommendations made by these
 3 departments. If truck trips are limited to no more than 50 trips during the morning and
 4 afternoon or evening peak hour periods, implementation of Mitigation Measure TRN-1
 5 will reduce this impact to a less-than-significant level. However, limiting the number of
 6 peak hour truck trips to no more than 50 may not be feasible with respect to the
 7 construction schedule for maximum efficiency and public safety. Therefore, this impact
 8 would remain potentially significant and unavoidable after mitigation. DWR finds this
 9 remaining potentially significant and unavoidable impact to be acceptable because the
 10 environmental, economic, legal, social, technological, and other benefits outweigh and
 11 override this and the other significant and unavoidable environmental impacts of the
 12 project for the reasons set forth in Section 3.0, “Statement of Overriding Considerations,”
 13 of this document.

14 **Impact TRN-2: Creation of a Hazard as a Result of a Design Feature—Program-Level.**

15 ***Mitigation***

16 **Mitigation Measure TRN-2: Avoid Disruption of Subsurface Utility Facilities—Program-Level.**

17 To avoid disruption of subsurface utilities from those activities that involve ground
 18 disturbance, the project proponent will implement the following measures before
 19 construction to the extent feasible:

- 20 • Request an underground service alert to determine the location of all underground
 21 utility facilities.
- 22 • When underground utility facilities are present, coordinate with the owner of a
 23 transmission line or pipeline to obtain design specifications of underground
 24 facilities.
- 25 • Design restoration actions to avoid affecting underground utility facilities.
- 26 • If avoiding underground facilities is not feasible, coordinate with the utility owner
 27 to shut off and relocate the utilities as necessary.

28 ***Finding***

29 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
 30 TRN-2 will reduce significant impacts associated hazards created as a result of a design
 31 feature to a less-than-significant level because disruption of subsurface utilities from
 32 those activities that involve ground disturbance will be avoided by requesting an
 33 underground service alert to determine the location of all underground utility facilities,
 34 coordinating with the owner of a transmission line or pipeline to obtain design
 35 specifications of underground facilities, designing restoration actions to avoid
 36 underground utilities, and coordinating with the utility owner to shut off and relocate the
 37 utilities as necessary.

38 **Impact TRN-3: Reduced Emergency Access—Program-Level.**

1 **Mitigation**

2 Mitigation Measure TRN-3: Minimize Short-term Impacts on Traffic Circulation and Roadway
3 Capacity—Program-Level.

4 This mitigation measure is the same as Mitigation Measure TRN-1 described above.

5 **Finding**

6 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
7 TRN-3 will reduce significant impacts related to reduced emergency access to a less-
8 than-significant level because construction contractors will be required to limit truck trips
9 to less than 50 per hour on any affected roadway during the morning and afternoon or
10 evening peak hour periods, if feasible. In addition the project proponent will be required
11 to prepare a traffic management plan; submit the traffic management plan to the
12 appropriate county public works, fire, police, and sheriff departments for comments; and
13 implement the traffic management plan and feasible recommendations made by these
14 departments.

15 Impact TRN-4: Reduced Bicycle and Pedestrian Circulation—Program-Level.

16 **Mitigation**

17 Mitigation Measure TRN-4: Minimize Impacts on Public Bicycle and Pedestrian Circulation
18 Facilities—Program-Level.

19 The project proponent will minimize impacts to public bicycle and pedestrian circulation
20 by avoiding impacts, minimizing closure of paths, and providing for temporary or
21 permanent relocation of the facility to the extent feasible. The appropriate public works
22 department will be consulted to determine the most feasible alignment for facility
23 relocation.

24 **Finding**

25 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
26 TRN-4 will reduce significant impacts related reduced bicycle and pedestrian circulation
27 to a less-than-significant level because project proponents will minimize closure of paths
28 and provide for temporary or permanent relocation of the facility, to the extent feasible.

29 Impact TRN-7: Inadequate Emergency Access—Project-Level.

30 **Mitigation**

31 Mitigation Measure TRN-7: Implement Vehicular Traffic Detour Planning—Project-Level.

32 Reclamation will prepare a long-term vehicular detour plan for routes that may be
33 inundated as a result of the release of Interim and Restoration flows. Reclamation will
34 complete the vehicular detour plan in accordance with current Caltrans Standard Plans
35 and Specifications within 1 year of the signing of the Record of Decision. The vehicular
36 detour plan will provide convenient and parallel vehicular traffic detours for routes closed
37 because of inundation by Interim and Restoration flows. Until the long-term vehicular

1 detour plan is completed, Reclamation will continue to implement the vehicular detour
2 plan currently in place for the release of Interim Flows.

3 The detour plan will include an assessment of existing roadway conditions, whether
4 paved or unpaved, and provisions for repair and maintenance if the roadway conditions
5 are substantially degraded from increased use. After the detour route is identified and
6 before flows are released that would overtop existing crossings, the condition of the
7 detour road surface will be assessed and documented in a technical memorandum. The
8 technical memorandum will be submitted to the local agency responsible for maintenance
9 of the road, e.g., county public works department if it is a county road or land owner if
10 the proposed detour is a private road. After the detour is no longer needed, the condition
11 of the road surface will be assessed and documented in a technical memorandum. The
12 technical memorandum will identify substantial changes in the condition of the road
13 surface, such as potholing or rutting. Repair and maintenance actions needed to restore
14 the road surface to pre-detour conditions will be identified in the technical memorandum.
15 The technical memorandum will be submitted to the local maintenance agency. In
16 coordination with the local maintenance agency, the repair and maintenance actions may
17 be conducted by Reclamation or by the local maintenance agency to be proportionately
18 reimbursed by Reclamation.

19 The detour plan will prioritize paved roads for use as detour routes. If paved roadway
20 detours are not feasible during Interim or Restoration flow road inundation periods, the
21 detour plan will require that VDE from unpaved detour routes will be limited to 20
22 percent opacity by implementing at least one of the following control measures identified
23 in SJVAPCD regulations regarding stabilizing unpaved roadways:

- 24 • Watering
- 25 • Uniform layer of washed gravel
- 26 • Chemical/organic dust stabilizers/suppressants in accordance with the
27 manufacturer's specifications
- 28 • Roadmix
- 29 • Paving
- 30 • Any other method that can be demonstrated to the satisfaction of the Air Pollution
31 Control Officer that effectively limits VDE to 20 percent opacity and meets the
32 conditions of a stabilized unpaved road.

33 ***Finding***

34 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
35 TRN-7 will reduce potentially significant impacts resulting from inadequate emergency
36 access to a less-than-significant level because Reclamation will prepare a long-term
37 vehicular detour plan for routes that may be inundated as a result of the release of Interim
38 and Restoration flows, in accordance with existing Caltrans Standard Plans and

1 Specifications. The detour plan will include an assessment of existing roadway
2 conditions, whether paved or unpaved; will provide convenient and parallel vehicular
3 traffic detours for routes closed; and will make provisions for repair and maintenance if
4 the roadway conditions are substantially degraded from increased use.

5 **Utilities and Service Systems**

6 Impact UTL-2: Potential Reduction in Ability of Facilities in the Restoration Area to Meet
7 Wastewater Treatment Requirements—Program-Level.

8 **Mitigation**

9 Mitigation Measure UTL-2: Obtain Required Permits for Hatchery Wastewater Discharges
10 and Implement Best Management Practices to Reduce Pollutant Discharges—Program-
11 Level.

12 Before approval and final design and construction of any new hatchery, the project
13 proponents that develop the new or retrofitted hatchery will obtain all required permits
14 for any hatchery discharges from the appropriate agencies, and will comply with those
15 permits.

16 **Finding**

17 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
18 UTL-2 will reduce potentially significant impacts associated with wastewater discharges
19 from the new fish hatchery to a less-than-significant level because the project proponents
20 that develop the new or retrofitted hatchery will obtain all required permits for any
21 hatchery discharges from the appropriate agencies and will comply with those permits.

22 Impact UTL-4: Potential for Generation of Solid Waste in the Restoration Area in Excess of
23 Permitted Landfill Capacity—Program-Level.

24 **Mitigation**

25 Mitigation Measure UTL-4: Identify Landfills with Adequate Permitted Capacity to Accept
26 Solid Waste Generated by Settlement Activities and Dispose of Waste in Accordance with
27 Applicable Regulations—Program-Level.

28 To ensure that the permitted capacity of landfills would not be exceeded as a result of
29 disposal of solid waste generated by proposed restoration actions, project proponents of
30 subsequent site-specific projects will implement the following measures before
31 implementing one or more restoration actions:

- 32 • Prepare an estimate of solid waste that will be generated by the action(s).
- 33 • Maximize the recycling and/or composting of solid waste generated by the action
34 at appropriate locations.
- 35 • Identify appropriate recycling and/or disposal locations in accordance with
36 applicable Federal, State, and local regulations pertaining to solid waste.

- 1 • Notify the operator of the recycling/disposal location and obtain approval for the
2 type and amount of solid waste that will be generated by the action(s).
- 3 • If sufficient capacity is unavailable at the identified location, identify and obtain
4 approval for disposal at another location or multiple locations.

5 ***Finding***

6 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
7 UTL-4 will reduce potentially significant impacts resulting from generation of solid
8 waste in the Restoration Area in excess of permitted landfill capacity to a less-than-
9 significant level because the project proponents will prepare an estimate of solid waste
10 that will be generated by the action(s), maximize the recycling and/or composting of solid
11 waste, notify the operator of the recycling/disposal location and obtain approval for the
12 type and amount of solid waste, and identify and obtain approval for disposal at another
13 location or multiple locations, if needed.

14 Impact UTL-11: Potential for Insufficient Existing Water Supply and Resources—Project-
15 Level.

16 ***Mitigation***

17 No mitigation is available.

18 ***Finding***

19 For the reasons stated in the PEIS/R, DWR finds that an overall reduction in surface
20 water deliveries to Friant Division long-term contractors will result if all Interim and
21 Restoration flows are not recaptured to result in increased use of groundwater supplies,
22 thereby increasing overdraft. Reclamation will consider regional overdraft conditions in
23 evaluating candidate groundwater banking projects developed under Title III of the Act.
24 Whether remaining water supplies will be potentially significant is unknown, and no
25 feasible mitigation measures exist to reduce impacts associated with the potential for
26 insufficient existing water supplies and resources. DWR finds this remaining potentially
27 significant and unavoidable impact to be acceptable because the environmental,
28 economic, legal, social, technological, and other benefits outweigh and override this and
29 the other significant and unavoidable environmental impacts of the project for the reasons
30 set forth in Section 3.0, “Statement of Overriding Considerations,” of this document.

31 Impact UTL-16: Potential for Insufficient Existing Water Supply and Resources from
32 Recapture of Interim and Restoration Flows Between the Merced River and the Delta—
33 Project-Level.

34 ***Mitigation***

35 No mitigation is available.

36 ***Finding***

37 For the reasons stated in the PEIS/R, DWR finds that an overall reduction in surface
38 water will result if all Interim and Restoration flows are not recaptured between the

1 Merced River and the Delta to result in increased use of groundwater supplies, thereby
2 increasing overdraft. Reclamation will consider regional overdraft conditions in
3 evaluating candidate groundwater banking projects developed under Title III of the Act.
4 Whether the remaining water supplies will be potentially significant is unknown, and no
5 feasible mitigation measures exist to reduce impacts associated with the potential for
6 insufficient existing water supplies and resources between the Merced River and the
7 Delta. DWR finds this remaining potentially significant and unavoidable impact to be
8 acceptable because the environmental, economic, legal, social, technological, and other
9 benefits outweigh and override this and the other significant and unavoidable
10 environmental impacts of the project for the reasons set forth in Section 3.0, “Statement
11 of Overriding Considerations,” of this document.

12 **Visual Resources**

13 **Impact VIS-2: Long-Term Changes in Scenic Vistas, Scenic Resources, and Existing Visual**
14 **Character—Program-Level.**

15 ***Mitigation***

16 **Mitigation Measure VIS-2: Screen New Facilities and Minimize Adverse Visual Impacts—**
17 **Program-Level.**

18 Project proponents of subsequent site-specific projects will site new facilities as far from
19 any sensitive view sheds. In addition, project proponents of subsequent site-specific
20 projects will provide visual screening to soften views of the facilities. Landscaping could
21 include establishing vegetated berms and/or planting trees, shrubs, ground cover, and
22 floodplain habitat restoration. Effective visual screening with landscaping also could
23 include vegetation that would grow to cover perimeter fences. In addition, new facilities
24 will be sited to minimize land alterations and cut and fill. Any areas disturbed during
25 construction will be replanted with native vegetation.

26 In addition, natural colors and materials and low reflective materials will be used on all
27 new facilities (e.g., bridges) to the extent feasible that they would appear consistent with
28 the existing character of the area.

29 ***Finding***

30 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
31 VIS-2 will lessen potentially significant impacts associated with long-term changes in
32 scenic vistas, scenic resources, and existing visual character because new facilities will be
33 sited away from sensitive view sheds and visual screening will be provided to soften
34 views of the facilities. Whether this Mitigation Measure VIS-2 will reduce impacts to a
35 less-than-significant level in all circumstances is unknown. Therefore, this impact would
36 remain potentially significant and unavoidable after mitigation. DWR finds this
37 remaining potentially significant and unavoidable impact to be acceptable because the
38 environmental, economic, legal, social, technological, and other benefits outweigh and
39 override this and the other significant and unavoidable environmental impacts of the
40 project for the reasons set forth in Section 3.0, “Statement of Overriding Considerations,”
41 of this document.

1 **Impact VIS-3: Substantial Changes in Light or Glare—Program-Level.**

2 ***Mitigation***

3 **Mitigation Measure VIS-3: Establish and Require Conformance to Lighting Standards, and**
4 **Prepare and Implement a Lighting Plan—Program-Level.**

5 To reduce impacts associated with light and glare, for all project phases, project
6 proponents of subsequent site-specific projects will conform to the following guidelines:

- 7 • If construction lighting is needed, contractors will be required to shield lighting
8 and direct lights downward onto the work site.
- 9 • Meet the minimum county lighting standards for all project-related lighting. All
10 lighting fixtures will be designed to be consistent with the guidelines contained in
11 the applicable county general plan.
- 12 • Shield or screen lighting fixtures to direct the light downward and prevent light
13 spill on adjacent properties.
- 14 • Prohibit the use of harsh mercury vapor, low-pressure sodium, or fluorescent
15 bulbs.
- 16 • Consider design features, namely directional shielding for all substantial light
17 sources, that will reduce effects of nighttime lighting. In addition, consider the use
18 of automatic shutoffs or motion sensors for lighting features to further reduce
19 excess nighttime light. All nighttime lighting will be shielded to prevent the light
20 from shining off the surface intended to be illuminated.

21 ***Finding***

22 For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
23 VIS-3 will reduce potentially significant impacts from new sources of substantial light
24 and glare to a less-than-significant level because construction lighting will be shielded
25 and lights will be directed downward onto the work site; mercury vapor, low-pressure
26 sodium, or fluorescent bulbs will be prohibited; lighting fixtures will meet minimum
27 county lighting standards; project designs will include design features, namely directional
28 shielding for all substantial light sources, that reduce the effects of nighttime lighting; and
29 automatic shutoffs or motion sensors for lighting features will be considered to further
30 reduce excess nighttime light.

31 **2.3.2 Findings Related to Cumulative Impacts**

32 In addition to the significant and potentially significant impacts that would be caused by
33 the proposed program as discussed above, DWR finds that implementation of the SJRRP
34 would result in cumulatively considerable incremental contributions to significant
35 cumulative impacts as discussed below. DWR finds these cumulatively considerable
36 incremental contributions to be significant and unavoidable and also to be acceptable
37 because the proposed program's environmental, economic, legal, social, technological,
38 and other benefits outweigh and override these and the other significant and unavoidable

1 environmental impacts of the project for the reasons set forth in Section 3.0, “Statement
2 of Overriding Considerations,” of this document.

3 ***Air Quality***

4 The SJVAPCD has established a significance threshold of 10 tons per year for emissions
5 of the ozone precursors ROG and oxides of nitrogen NO_x. For PM₁₀, SJVAPCD requires
6 project applicants to implement effective and comprehensive control measures and
7 comply with applicable rules and regulations (e.g., Regulation VII of Rule 9510,
8 “Indirect Source Review”) rather than quantifying construction emissions in detail. The
9 project proponent will be required by law to comply with SJVAPCD Regulation VIII,
10 “Fugitive Dust PM₁₀ Prohibitions,” to implement any of the action alternatives. However,
11 additional control measures recommended by SJVAPCD that will be applicable to and
12 feasible for the SJRRP are not currently part of the project description for any of the
13 action alternatives because project design and construction details are not yet known.

14 The quantity of ROG and NO_x emissions was estimated under a maximum construction
15 intensity scenario. Implementation of the action alternatives with mitigation may exceed
16 SJVAPCD thresholds. Thus, emissions of pollutants during construction of action
17 alternatives could violate or contribute substantially to an existing or projected air quality
18 violation, and/or expose sensitive receptors to substantial pollutant concentrations. In
19 addition, the San Joaquin Air Basin is currently designated as a nonattainment area for
20 ozone, PM₁₀, and PM_{2.5}; therefore, construction-generated emissions could make a
21 cumulatively considerable incremental contribution to cumulative pollutant
22 concentrations that exceed California ambient air quality standards.

23 Implementation of Mitigation Measure AIR-1 will reduce construction-related impacts
24 from PM₁₀ emissions to a less-than-significant level. Assuming that all reasonably
25 foreseeable probable future projects also implement all feasible construction emissions
26 control measures consistent with SJVAPCD guidelines and regulations, the impact of
27 construction emissions from cumulative projects may be less than significant, although
28 larger projects would likely result in significant and unavoidable air quality impacts on
29 their own. However, given the scale of development that would occur with the reasonably
30 foreseeable probable future projects combined with the nonattainment status of the San
31 Joaquin Valley Air Basin for ozone, PM₁₀, and PM_{2.5}, the SJRRP actions would likely
32 make a cumulatively considerable contribution to a significant cumulative construction-
33 related air quality impact. This PEIS/R includes all available feasible mitigation to reduce
34 the contribution of the SJRRP actions to cumulative air quality impacts. These mitigation
35 measures will substantially reduce air emissions associated with the SJRRP actions, but
36 they are not sufficient to reduce the cumulative contribution of the SJRRP actions to
37 below a level that is considerable. Consequently, SJRRP actions would have a
38 cumulatively considerable incremental contribution to a significant cumulative air quality
39 impact during construction activities. The project’s contribution to this significant
40 cumulative impact would be significant and unavoidable.

41 ***Biological Resources—Fisheries***

42 Water temperatures in Reaches 1 and 2 in the San Joaquin River are expected to change
43 as a result of the combined effects of SJRRP actions and potential future implementation

1 of the USJRBSI, which is considered to be a reasonably foreseeable future project.
2 Although this would benefit salmonid and other native fishes, a shift in species
3 abundance may occur. The potential impacts are outweighed by the benefits that would
4 arise from this project with respect to water temperature. Although the overall effect of
5 the SJRRP actions is expected to be beneficial to most representative fish species in the
6 San Joaquin River, several SJRRP actions could result in adverse impacts on existing
7 populations of anadromous salmonids and contribute to cumulative impacts.
8 Reintroducing spring-run Chinook salmon to the San Joaquin River in the Restoration
9 Area could result in compromised genetic integrity and fitness of wild stocks in the major
10 San Joaquin River tributaries (the Merced, Tuolumne, and Stanislaus rivers) if
11 reintroduction includes hatchery stock and hybridization between wild and hatchery fish
12 occurs. Disease organisms could also be carried by brood stock from sources in the
13 Sacramento River basin or by hatchery fish used to supplement the reintroduced spring-
14 run Chinook salmon population. Such a disease outbreak could lead to direct mortality or
15 reduced fecundity among wild fall-run Chinook salmon in the major San Joaquin River
16 tributaries. Wild fall-run Chinook salmon in the major San Joaquin River tributaries have
17 already experienced a significant cumulative impact from past and present projects alone.
18 Direct mortality or reduced fecundity resulting from such an outbreak would be
19 considered a potentially cumulatively considerable incremental contribution to this
20 overall significant cumulative impact on wild fall-run Chinook salmon in the San Joaquin
21 River tributaries. The project's potential contribution to this significant cumulative
22 impact would be potentially significant and unavoidable.

23 ***Climate Change and Greenhouse Gas Emissions***

24 GHGs have the potential to adversely affect the environment because such emissions
25 contribute, on a cumulative basis, to global climate change. The proper context for
26 addressing this issue in the PES/R is as a discussion of cumulative impacts, because
27 although the emissions of one single project will not cause global climate change, GHG
28 emissions from multiple projects throughout the world could result in a cumulative
29 impact with respect to global climate change. As described above under "Global Climate
30 Change and Greenhouse Gas Emissions," it is assumed that construction-generated and
31 operational GHG emissions could result in a cumulatively considerable incremental
32 contribution to a significant cumulative impact on global climate change. The project's
33 potential contribution to this significant cumulative impact would be potentially
34 significant and unavoidable.

35 ***Cultural Resources***

36 Cumulative impacts to cultural resources could occur in the San Joaquin River upstream
37 from Friant Dam, in the Restoration Area, downstream from the Merced River, and in the
38 Delta. Impacts to cultural resources from implementing the Settlement would include
39 disturbances or destruction of these resources. Implementation of Mitigation Measures
40 CUL-1, CUL-2, CUL-3, and CUL-4 will minimize the significance of these impacts and
41 these measures include compliance with Section 106 of the NHPA and implementation of
42 a PA for the treatment of significant cultural resources and artifacts if they are found.

43 Prehistoric human habitation sites are common in riverbank and floodplain areas, and
44 burial sites are often encountered in the course of ground-disturbing activities. It is likely

1 that known or unknown archaeological resources could be disturbed and cultural
2 resources damaged or destroyed during construction activities for any of the SJRRP
3 actions. Losses of a unique archaeological resource could occur where excavations
4 encounter archaeological deposits that cannot be removed or recovered (e.g., under
5 levees), or where recovery would not be sufficient to prevent the loss of the cultural
6 material's significance. Historic resources could also be damaged or require removal
7 from areas near flood control facilities under the SJRRP actions. If these resources would
8 be eligible for National Register of Historic Places listing, the impact of their
9 modification or destruction would be significant. Although implementation of Mitigation
10 Measures CUL-1, CUL-2, CUL-3, and CUL-4 will reduce effects on potentially
11 significant cultural resources, adverse effects, particularly on archaeological resources,
12 may still occur, and thus the impact would be significant and unavoidable. Losses of
13 archaeological resources would add to a historical trend in the loss of these resources as
14 artifacts of cultural significance and as objects of research importance; therefore, there is
15 an overall significant cumulative impact on cultural resources along the San Joaquin
16 River. Despite the implementation of mitigation measures, the SJRRP actions have the
17 potential to make a cumulatively considerable incremental contribution to a significant
18 cumulative impact on cultural resources along the San Joaquin River. The project's
19 potential contribution to this significant cumulative impact would be potentially
20 significant and unavoidable.

21 ***Hydrology—Groundwater***

22 In the short term (within 3 years after commencement of the program), the SJRRP actions
23 would not substantially deplete groundwater supplies or interfere with groundwater
24 recharge, because groundwater drawdown within the Friant Division would be within the
25 range of historical fluctuations in groundwater levels. In the long term, however, the
26 SJRRP actions would accelerate the downward trend of groundwater levels in the Friant
27 Division. This incremental contribution would be considered to be cumulatively
28 considerable because groundwater pumping would be anticipated to increase in response
29 to a reduction in surface-water deliveries to the Friant Division long-term contractors. It
30 is too speculative for meaningful consideration to identify potential legal actions that may
31 arise as a result of increased groundwater pumping within the Friant Division long-term
32 contractor areas. However, it is anticipated that Friant Division long-term contractor
33 districts that have groundwater management plans (GMP) in place would follow
34 guidelines outlined in the GMP, such as BMPs to protect the underlying aquifer. A
35 potential outcome could lead to fallowing land, if it is identified as the BMP in the GMP.
36 Consequently, the SJRRP actions would cause a cumulatively considerable incremental
37 contribution to a significant cumulative impact on groundwater levels and supplies. The
38 project's contribution to this significant cumulative impact would be significant and
39 unavoidable.

40 Drawdown of the groundwater levels in the short term is estimated to be within the
41 historical range of groundwater levels, which is not anticipated to lead to upwelling of
42 saline groundwater. Under the SJRRP actions, drawdown of groundwater levels in the
43 Friant Division service area would be accelerated in the short term. This accelerated
44 drawdown would result in further degradation of groundwater quality because increased
45 groundwater pumping would be expected as a result of reductions in surface water

1 deliveries. Implementation of any of the SJRRP actions could accelerate the upwelling of
 2 saline groundwater into the groundwater aquifer. The extent of and the speed in which
 3 groundwater quality would be degraded is not known and there are no feasible mitigation
 4 measures for this impact. Because of the uncertainty and lack of mitigation, the SJRRP
 5 actions would cause a cumulatively considerable incremental contribution to an overall
 6 significant cumulative impact on groundwater quality and the extent of groundwater
 7 upwelling in the Friant Division service area. The project’s contribution to this significant
 8 cumulative impact would be significant and unavoidable.

9 ***Hydrology—Surface Water Supplies and Facilities Operations***

10 Delta outflow is primarily a product of Delta inflow and export pumping. Several past
 11 and present projects, especially storage projects associated with the CVP and SWP, have
 12 affected and continue to affect flows in the San Joaquin and Sacramento rivers, resulting
 13 in changing Delta conditions and an overall significant cumulative effect on Delta water
 14 supplies and the decreased frequency of excess water conditions in the Delta. Several
 15 reasonably foreseeable probable future storage projects affecting the San Joaquin and
 16 Sacramento rivers (e.g., USJRBSI, Shasta Lake Water Resources Investigation (Shasta
 17 Reservoir Enlargement), Sites Reservoir), along with potential alternative Delta
 18 conveyance projects (e.g., Bay-Delta Conservation Plan), could also contribute
 19 considerably to the significant cumulative effect. They may limit the availability and
 20 timing of excess water in the Delta causing a reduction in the recurrence of Delta excess
 21 water conditions (i.e., when Delta outflow exceeds regulatory requirements in the Delta
 22 and Delta diversions and is therefore in “excess”). The reduction in the occurrence of
 23 Delta excess-water conditions under the No-Action Alternative would occur often enough
 24 to potentially affect CCWD’s ability to fill Los Vaqueros Reservoir, because under State
 25 Water Resources Control Board Water Right Decision 1629, CCWD’s ability to fill Los
 26 Vaqueros Reservoir is restricted to when the Delta is in excess water conditions – from
 27 November 1 to June 30. SJRRP actions would cause infrequent impacts to CCWD’s
 28 ability to fill Los Vaqueros Reservoir; however, because CCWD’s ability to fill Los
 29 Vaqueros Reservoir would be frequently impacted by increased water demand under the
 30 No-Action Alternative, the action alternatives would cause a cumulatively considerable
 31 incremental contribution to a significant cumulative effect on CCWD water supplies. The
 32 project’s contribution to this significant cumulative impact would be significant and
 33 unavoidable.

34 ***Land Use Planning and Agricultural Resources***

35 In the Restoration Area, constructing the levee system in Reaches 2B and 4B1 and the
 36 Mendota Pool Bypass and establishing floodplain habitat would affect agricultural
 37 resources directly and indirectly. Constructing a new pump station and conveyance
 38 facility along the San Joaquin River between the Merced River and the Delta would
 39 further affect agricultural resources.

40 Restoration actions in Reach 2B would convert up to 2,300 acres of Important Farmland.
 41 Constructing a bypass around Mendota Pool with integrated floodplain habitat would
 42 convert up to 420 acres of Important Farmland; restoration actions in Reach 4B1 would
 43 convert up to 5,600 acres of Important Farmland. Lands used for borrow sites are
 44 assumed to be designated as Important Farmland. The area of disturbance required for the

1 borrow sites is unknown, and the acreage of Important Farmland that may be directly
2 converted to nonagricultural uses for borrow sites cannot be quantified at this time.

3 Approximately 2,100 acres of land for construction of the levee system in Reach 2B,
4 5,500 acres in Reach 4B1, and 375 acres of land for construction of the Mendota Pool
5 Bypass would be removed permanently from Williamson Act contracts. It is assumed that
6 lands used for borrow sites would require termination of Williamson Act contracts. The
7 area of disturbance required for the borrow sites is unknown, and the acreage of land that
8 would be removed from Williamson Act contracts for borrow sites cannot be quantified
9 at this time.

10 The loss of Important Farmland and cancellation of Williamson Act contracts is
11 considered a cumulatively considerable incremental impact when evaluated in connection
12 with the significant cumulative losses that would occur in the cumulative context,
13 including implementation of restoration actions and construction of the pumping plant
14 and conveyance facility; past farmland conversions; planned future residential,
15 commercial, and industrial development; flood control projects; and habitat restoration
16 projects in Fresno, Madera, and Merced counties.

17 Implementation of Mitigation Measures LUP-2 and LUP-3 will reduce potential impacts
18 on Important Farmland and impacts associated with the cancellation of Williamson Act
19 contracts. However, the impacts would not be reduced to a less-than-significant level
20 because conversion of a substantial amount of Prime Farmland and cancellation of
21 Williamson Act contracts would still occur. This analysis assumes that reasonably
22 foreseeable probable future projects would develop and adopt mitigation to minimize the
23 significance of the impacts on agricultural resources to the extent feasible. Nonetheless, it
24 may not be feasible to fully mitigate all impacts on agricultural resources, and some of
25 the effects from numerous projects may contribute considerably to significant cumulative
26 impacts. Therefore, the SJRRP actions would cause a cumulatively considerable
27 incremental contribution to a significant cumulative impact on land use planning. The
28 project's contribution to this significant cumulative impact would be significant and
29 unavoidable.

30 Interim and Restoration flows would change the duration and seasonality of inundation
31 and soil saturation, which could potentially adversely affect crop production in the
32 Restoration Area. These effects will be reduced but cannot be eliminated through feasible
33 mitigation, and would combine with other significant cumulative effects on agricultural
34 productivity from other past, present, and reasonably foreseeable probable future actions.

35 The amount of Interim and Restoration flows would change over time as restoration
36 actions are implemented, and so would the amount of water recaptured and returned to
37 Friant Division long-term contractors, and storage of and groundwater recharge by
38 surplus water from wet years. Overall, however, there would be reduced water deliveries
39 to Friant Division long-term contractors that would affect cropping patterns, idling of
40 farmland, and productivity, and would combine with other significant cumulative effects
41 on agricultural productivity.

1 Overall, the SJRRP actions would cause a cumulatively considerable incremental
2 contribution to a significant cumulative impact on agricultural resources and productivity,
3 Important Farmland, and Williamson Act contracts. The project's contribution to this
4 significant cumulative impact would be significant and unavoidable.

5 **Noise**

6 Implementing the Settlement would result in significant noise impacts associated with
7 construction activities such as borrow-site activities and borrow-site material hauling
8 along study area roadways. Noise impacts from construction and borrow-site activities
9 could be reduced to less-than-significant levels with implementation of Mitigation
10 Measures NOI-1 and NOI-4; however, noise impacts from these activities may be
11 significant and unavoidable when sensitive receptors are near construction or borrow-site
12 areas. Implementation of Mitigation Measure NOI-2 will reduce potentially significant
13 and significant exterior traffic noise levels to less than significant. However, site
14 restrictions at some sensitive receptors may limit the inclusion of mitigation measures,
15 potentially resulting in significant and unavoidable impacts.

16 Some jurisdictional noise regulations limit construction activities to daytime hours. It is
17 similarly anticipated that compliance with these regulations alone will not avoid
18 significant construction-related noise impacts associated with the SJRRP. Therefore,
19 potentially significant noise impacts associated with construction activities could occur.
20 Other reasonably foreseeable projects could occur in close proximity to sensitive
21 receptors. It is assumed that these reasonably foreseeable future projects will also
22 implement noise-reducing measures and could still have potentially significant noise
23 impacts. Implementation of the Settlement actions without noise mitigation when added
24 to the other reasonably foreseeable projects could result in significant noise impacts and
25 implementation would result in a cumulatively significant impact. Implementation of
26 Mitigation Measure NOI-1 will reduce program-related construction-noise impacts, but
27 not to a less-than-significant level. Because implementation of Mitigation Measure NOI-
28 1 will not reduce the cumulatively significant construction noise impact to a less-than-
29 significant level, the contribution of construction noise from program-related actions
30 would be cumulatively considerable.

31 Traffic noise may extend beyond a project site along existing roadways, resulting in
32 significant traffic noise impacts on sensitive uses along those roadways. Because full
33 buildout of the SJRRP may result in a perceptible increase in traffic noise, SJRRP actions
34 may incrementally contribute to a cumulative impact. Furthermore, the combined
35 cumulative increase in traffic would extend the 60-dBA (A-weighted decibel) noise
36 contour distances for some roadway segments, potentially causing additional sensitive
37 receptors to fall within this contour. Thus, cumulative traffic noise impacts from the
38 SJRRP and the related projects, taken together, would be significant. Erecting temporary
39 sound curtains and other noise-attenuating features (e.g., stockpiles) throughout the area
40 will require site-specific footprints on private property and may not be feasible to
41 implement on account of site requirements. Because it is considered infeasible to
42 sufficiently reduce noise at every existing and proposed sensitive receptor that may be
43 affected, this cumulative traffic noise impact would be significant. Overall, the SJRRP
44 actions would cause a cumulatively considerable incremental contribution to a significant

1 cumulative impact on construction-related noise. The project's contribution to this
2 significant cumulative impact would be significant and unavoidable.

3 ***Utilities and Service Systems***

4 Implementing Interim and Restoration flows would result in reduced water deliveries to
5 Friant Division water contractors. This impact would be interactive with water supply
6 reductions associated with regulatory compliance for habitat restoration, fisheries
7 management, and constraints of existing facilities. Consistent with the Act, a plan to
8 recirculate, recapture, reuse, exchange, or transfer water released for Interim and
9 Restoration flows will be developed and implemented to minimize impacts of reduced
10 deliveries to Friant Division long-term contractors. In addition, a RWA will be
11 established to provide an accounting of reductions in water supply deliveries to Friant
12 Division long-term contractors and to make surplus water available at a discounted rate to
13 the affected contractors. However, these actions will not fully mitigate the losses in water
14 deliveries, and new water sources could be required. Therefore, the SJRRP would result
15 in a cumulatively considerable incremental contribution to the significant cumulative
16 impact of reduced water supplies to Friant Division water contractors. The project's
17 contribution to this significant cumulative impact would be significant and unavoidable.

18 ***Visual Resources***

19 In the study area, several large projects in various stages of planning and implementation
20 may have adverse impacts on visual resources. Those projects include the DMC
21 Recirculation Project, the City of Stockton Delta Water Supply Project, implementation
22 of the USACE policy on levee vegetation, and various proposed residential, commercial,
23 and industrial developments. The cumulative effect of these changes on visual resources
24 from past, present, and reasonably foreseeable planned future projects would be
25 significant. These cumulative impacts can be minimized to a degree through vegetative
26 and topographic screening of structures, use of outdoor lighting that limits glare,
27 appropriate building design, and other measures; however, the significant cumulative
28 impact cannot be mitigated to a less-than-significant level.

29 The incremental contributions of program-level impacts could be cumulatively
30 considerable if construction of a new fish hatchery or major levee work along the river in
31 the Restoration Area would occur and the visual impacts of these actions could not be
32 appropriately mitigated. Overall, the SJRRP actions would cause a potential cumulatively
33 considerable incremental contribution to the significant cumulative impact on visual
34 resources in the Restoration Area and downstream at the site of any new pumping plant.
35 The project's contribution to this significant cumulative impact would be significant and
36 unavoidable.

37 **2.3.3 Findings Related to Project Alternatives**

38 Where a lead agency has determined that, even after adoption of all feasible mitigation
39 measures, a project as proposed would still cause one or more significant environmental
40 impacts that cannot be substantially lessened or avoided, the lead agency, before
41 approving the project as mitigated, must first determine, with respect to such impacts,
42 whether there remain any project alternatives that are both environmentally superior and
43 feasible within the meaning of CEQA. In addition to the proposed project, Alternative C1

1 (Reach 4B1 at 475 cfs, New Pumping Plant Recapture), DWR considered a No-Action
2 (No-Project) Alternative and five other action alternatives in the Draft PEIS/R (see Table
3 2-1 for a summary comparison of program- and project-level actions included in each
4 action alternative). Chapter 2.0, “Descriptions of Alternatives,” in the Draft PEIS/R
5 describes each alternative in detail, and Section 2.2.2, “Alternatives,” in this document
6 summarizes each alternative. Each action alternative would achieve implementation of
7 the Settlement and contribute to the success of the restoration and water management
8 goals to varying degrees. A summary comparison of the long-term environmental
9 benefits to be gained, or adverse impacts to be avoided, among all alternatives is provided
10 in Section 27.5, “Environmentally Preferable/Superior Alternative,” of the Draft PEIS/R,
11 as well as in Tables ES-8 and 27-1 in the Draft PEIS/R.

12 For the reasons discussed below, DWR has chosen Alternative C1 as the preferred
13 alternative. The following discussion focuses on findings related to and reasons for
14 rejection of the No-Action Alternative and the remaining five action alternatives (i.e., A1,
15 A2, B1, B2, and C2).

16 **No-Action Alternative**

17 Under the No-Action (No-Project) Alternative, the Settlement would not be implemented.
18 The No-Action Alternative includes projected conditions as they would exist in the study
19 area at the end of the PEIS/R planning horizon (2030), including those projects and
20 programs considered reasonably foreseeable by that time. Reclamation would continue to
21 release a base flow from Friant Dam to meet existing holding contract obligations to
22 maintain a 5 cfs flow at Gravelly Ford.

23 **Facts in Support of the Decision to Reject the No-Action Alternative** The No-Action
24 Alternative would not implement the Settlement. Although the specific actions regarding
25 *NRDC, et al., v. Kirk Rodgers, et al.* that would be taken under the No-Action Alternative
26 are too speculative for meaningful consideration and cannot be defined at this time, it is
27 reasonable to assume that the Settlement would be voided and litigation would resume.

28 The No-Action Alternative would not fulfill any of the Settlement objectives, the
29 majority of which relate to a need to increase water releases from Friant Dam to support
30 achieving the restoration goal while implementing a plan for recirculation, recapture,
31 reuse, exchange, or transfer of the Interim and Restoration flows, for the purpose of
32 reducing or avoiding adverse impacts to water deliveries to the Friant Division long-term
33 contractors caused by releasing Interim and Restoration flows. Actions identified by the
34 Settlement to achieve the Restoration Goal, including releases of water from Friant Dam
35 to the confluence of the Merced River, a combination of channel and structural
36 modifications along the San Joaquin River below Friant Dam, and reintroduction of
37 Chinook salmon, would not occur.

38 DWR rejects the No-Action Alternative because it would not achieve implementation of
39 the Settlement or contribute to the success of the Restoration and Water Management
40 goals.

1 **Alternative A1—Reach 4B1 at 475 cfs, Delta Recapture**

2 Alternative A1 includes reoperating Friant Dam, and implementing a range of actions to
3 achieve the Restoration and Water Management goals. Under Alternative A1, Reach 4B1
4 would convey at least 475 cfs, and the Eastside and Mariposa bypasses would convey any
5 remaining Interim and Restoration flows. Alternative A1 includes the potential for
6 recapture of Interim and Restoration flows in the Restoration Area and the Delta using
7 existing facilities, and the potential for recirculation of all recaptured Interim and
8 Restoration flows.

9 **Facts in Support of the Decision to Reject Alternative A1** Alternative A1 would
10 achieve implementation of the Settlement. Alternative A1 and the proposed project,
11 Alternative C1, would both contribute equally to the success of the Restoration Goal.

12 Alternative A1 is limited in its ability to recapture Interim and Restoration flows
13 compared to the proposed project, Alternative C1. Alternative A1 includes the potential
14 for recapture of Interim and Restoration flows in the Restoration Area and the Delta using
15 existing facilities, whereas Alternative C1 provides additional flexibility to recapture
16 Interim and Restoration flows, and thereby reduce significant and unavoidable direct,
17 indirect, and cumulative impacts related to water supply. Alternative C1 provides for
18 recapture of Interim and Restoration flows in the same manner as Alternative A1, but
19 also includes additional program-level water management actions to (1) recapture Interim
20 and Restoration flows using existing facilities along the San Joaquin River between the
21 Merced River and the Delta (these actions could include potential in-district
22 modifications to existing off-river facilities to facilitate routing or storage of water, such
23 as expansion of existing canals or construction of lift station on existing canals), and (2)
24 construct and operate new pumping infrastructure on the San Joaquin River below the
25 confluence of the Merced River, to recapture Interim and Restoration flows (new
26 pumping infrastructure could include expansion of existing pumping plants, or the
27 construction of a new pumping plant on the San Joaquin River below the confluence of
28 the Merced River.)

29 Although Alternative A1 and Alternative C1 would achieve implementation of the
30 Settlement and contribute to the success of the restoration goal in similar fashion,
31 Alternative A1 would contribute less to the success of the Water Management Goal than
32 would Alternative C1. Moreover, significant and unavoidable direct, indirect, and
33 cumulative impacts to water supply would be minimized under Alternative C1 compared
34 to Alternative A1, as follows:

- 35 • Impact GRW-4: Change in Groundwater Levels in CVP/SWP Water Service
36 Areas—Project-Level
- 37 • Impact GRW-5: Change in Groundwater Quality in CVP/SWP Water Service
38 Areas—Project-Level
- 39 • Impact LUP-8: Substantial Diminishment of Agricultural Land Resource Quality
40 and Importance because of Altered Water Deliveries—Project-Level

- 1 • Impact UTL-11: Potential for Insufficient Existing Water Supply and
2 Resources—Project-Level
- 3 • Impact UTL-16: Potential for Insufficient Existing Water Supply and Resources
4 from Recapture of Interim and Restoration Flows between the Merced River and
5 the Delta—Project-Level

6 For these reasons, DWR rejects Alternative A1 (Reach 4B1 at 475 cfs, Delta Recapture).

7 ***Alternative A2—Reach 4B1 at 4,500 cfs, Delta Recapture***

8 Alternative A2 includes the same restoration and water management actions as
9 Alternative A1. Alternative A2 also includes additional program-level restoration actions
10 to increase Reach 4B1 channel capacity to at least 4,500 cfs with integrated floodplain
11 habitat, as specified in Paragraph 11(b)(1) of the Settlement.

12 **Facts in Support of the Decision to Reject Alternative A2** Alternative A2 would
13 achieve implementation of the Settlement.

14 Alternative A2 has the same limitations for water recapture and the same limitations for
15 minimizing water supply impacts as those identified for Alternative A1 (see “Alternative
16 A1, Reach 4B1 at 475 cfs, Delta Recapture,” above). Because it provides greater
17 flexibility for implementing actions in support of the Water Management Goal,
18 Alternative C1 would be superior to Alternative A2 with respect to contributing to the
19 success of the Water Management Goal and reducing significant and unavoidable direct,
20 indirect, and cumulative impacts related to water supplies, as identified above.

21 Although Alternative A2 would include additional program-level restoration actions to
22 increase Reach 4B1 channel capacity to at least 4,500 cfs with integrated floodplain
23 habitat, as specified in Paragraph 11(b)(1) of the Settlement, the selection of Alternative
24 A2 as the proposed project would not support expansion of the Reach 4B1 channel to a
25 capacity less than 4,500 cfs. Paragraph 11(b)(1) includes “[m]odifications in San Joaquin
26 River channel capacity (incorporating new floodplain and related riparian habitat) to
27 ensure conveyance of at least 4,500 cfs through Reach 4B, unless the Secretary, in
28 consultation with the Restoration Administrator and with the concurrence of [NMFS] and
29 [USFWS], determines that such modifications would not substantially enhance
30 achievement of the Restoration Goal.” As required by the Settlement and the Act,
31 Reclamation and DWR are currently conducting a site-specific study on the potential
32 effects of implementing actions for the conveyance of Interim and Restoration flows and
33 incorporation of fish habitat through Reach 4B and the bypasses, consistent with the
34 Settlement and the Act. This separate site-specific study will provide the basis to
35 determine whether and to what extent to expand channel conveyance capacity in Reach
36 4B1 or use an alternative route. Under the proposed project, Alternative C1, Reach 4B1
37 would convey at least 475 cfs and the Eastside and Mariposa bypasses would convey any
38 remaining Interim and Restoration flows. Therefore, the proposed project provides
39 greater flexibility in achieving the Restoration Goal than would Alternative A2. The
40 proposed action also allows Reclamation and DWR to utilize the results of a site-specific

1 study on the potential effects of modifying Reach 4B1 in determining the desired extent
2 of modifications in Reach 4B1.

3 For these reasons, DWR rejects Alternative A2 (Reach 4B1 at 4,500 cfs, Delta
4 Recapture).

5 ***Alternative B1—Reach 4B1 at 475 cfs, San Joaquin River Recapture***

6 Alternative B1 includes all of the program- and project-level actions in Alternative A1,
7 plus additional program-level water management actions to recapture Interim and
8 Restoration flows using existing facilities along the San Joaquin River between the
9 Merced River and the Delta. These actions could include potential in-district
10 modifications to existing off-river facilities to facilitate routing or storage of water, such
11 as expansion of existing canals or construction of lift stations on existing canals.

12 **Facts in Support of the Decision to Reject Alternative B1** Alternative B1 would
13 achieve implementation of the Settlement. Alternative B1 and the proposed project,
14 Alternative C1, would both contribute equally to the success of the Restoration Goal.

15 Alternative B1 would improve on Alternative A1 in terms of contributing to the success
16 of the Water Management Goal, by adding recapture using existing facilities downstream
17 of the Restoration Area and reducing impacts related to water supply (see “Alternative
18 A1, Reach 4B1 at 475 cfs, Delta Recapture,” above for a summary of these water supply
19 impacts). Alternative C1, however, would provide additional flexibility over Alternative
20 B1 by allowing for new pumping infrastructure downstream of the Restoration Area,
21 which would better contribute to the success of the Water Management Goal as well as
22 further minimize impacts related to water supply that would result from Alternative B1.
23 Consequently, Alternative C1 would be superior to Alternative B1 with respect to
24 contributing to the success of the Water Management Goal and reducing significant and
25 unavoidable direct, indirect, and cumulative impacts related to water supplies, as
26 identified above.

27 For these reasons, DWR rejects Alternative B1 (Reach 4B1 at 475 cfs, San Joaquin
28 Recapture).

29 ***Alternative B2—Reach 4B1 at 4,500 cfs, San Joaquin River Recapture***

30 Alternative B2 includes all of the program- and project-level actions in Alternative B1.
31 Alternative B2 also would include additional program-level restoration actions in Reach
32 4B1 and the bypass system to increase Reach 4B1 channel capacity to at least 4,500 cfs
33 with integrated floodplain habitat, as included in Alternative A2. Under this alternative,
34 the Eastside and Mariposa bypasses would not convey Interim or Restoration flows after
35 completion of Reach 4B1 channel modifications.

36 **Facts in Support of the Decision to Reject Alternative B2** Alternative B2 would
37 achieve implementation of the Settlement.

38 Alternative B2 would improve on Alternative A1 in terms of contributing to the success
39 of the Water Management Goal, by adding recapture using existing facilities downstream
40 of the Restoration Area and reducing impacts related to water supply (see “Alternative

1 A1, Reach 4B1 at 475 cfs, Delta Recapture,” above for a summary of these water supply
2 impacts). Alternative C1, however, would provide additional flexibility over Alternative
3 B2 by allowing for new pumping infrastructure downstream of the Restoration Area,
4 which would better contribute to the success of the Water Management Goal as well as
5 further minimize impacts related to water supply that would result from Alternative B2.
6 Consequently, Alternative C1 would be superior to Alternative B2 with respect to
7 contributing to the success of the Water Management Goal and reducing significant and
8 unavoidable direct, indirect, and cumulative impacts related to water supplies, as
9 identified above.

10 Similar to Alternative A2, although Alternative B2 would include additional program-
11 level restoration actions to increase Reach 4B1 channel capacity to at least 4,500 cfs with
12 integrated floodplain habitat, as specified in Paragraph 11(b)(1) of the Settlement, the
13 selection of Alternative B2 as the proposed project would not support expansion of the
14 Reach 4B1 channel to a capacity less than 4,500 cfs. Paragraph 11(b)(1) includes
15 “[m]odifications in San Joaquin River channel capacity (incorporating new floodplain
16 and related riparian habitat) to ensure conveyance of at least 4,500 cfs through Reach 4B,
17 unless the Secretary, in consultation with the Restoration Administrator and with the
18 concurrence of [NMFS] and [USFWS], determines that such modifications would not
19 substantially enhance achievement of the Restoration Goal.” As required by the
20 Settlement and the Act, Reclamation and DWR are currently conducting a site-specific
21 study on the potential effects of implementing actions for the conveyance of Interim and
22 Restoration flows and incorporation of fish habitat through Reach 4B and the bypasses,
23 consistent with the Settlement and the Act. This separate site-specific study will provide
24 the basis to determine whether and to what extent to expand channel conveyance capacity
25 in Reach 4B1 or use an alternative route. Under the proposed project, Alternative C1,
26 Reach 4B1 would convey at least 475 cfs and the Eastside and Mariposa bypasses would
27 convey any remaining Interim and Restoration flows. Therefore, the proposed project
28 provides greater flexibility in achieving the Restoration Goal than would Alternative B2.
29 The proposed action also allows Reclamation and DWR to utilize the results of a site-
30 specific study on the potential effects of modifying Reach 4B1 in determining the desired
31 extent of modifications in Reach 4B1.

32 For these reasons, DWR rejects Alternative B2 (Reach 4B1 at 4,500 cfs, San Joaquin
33 Recapture).

34 ***Alternative C2—Reach 4B1 at 4,500 cfs, New Pumping Plant Recapture***

35 Alternative C2 includes all of the program-level and project-level actions in Alternative
36 B2, plus additional program-level water management actions for constructing and
37 operating new pumping infrastructure on the San Joaquin River, below the confluence of
38 the Merced River, to recapture Interim and Restoration flows. New pumping
39 infrastructure could include expansion of existing pumping plants, or the construction of
40 a new pumping plant on the San Joaquin River below the confluence of the Merced
41 River.

42 **Facts in Support of the Decision to Reject Alternative C2** Alternative C2 would
43 achieve implementation of the Settlement. Alternative C2 and the proposed project,

1 Alternative C1, would both contribute equally to the success of the Water Management
2 Goal.

3 Similar to Alternatives A2 and B2, although Alternative C2 would include additional
4 program-level restoration actions to increase Reach 4B1 channel capacity to at least
5 4,500 cfs with integrated floodplain habitat, as specified in Paragraph 11(b)(1) of the
6 Settlement, the selection of Alternative C2 as the proposed project would not support
7 expansion of the Reach 4B1 channel to a capacity less than 4,500 cfs. Paragraph 11(b)(1)
8 includes “[m]odifications in San Joaquin River channel capacity (incorporating new
9 floodplain and related riparian habitat) to ensure conveyance of at least 4,500 cfs through
10 Reach 4B, unless the Secretary, in consultation with the Restoration Administrator and
11 with the concurrence of [NMFS] and [USFWS], determines that such modifications
12 would not substantially enhance achievement of the Restoration Goal.” As required by
13 the Settlement and the Act, Reclamation and DWR are currently conducting a site-
14 specific study on the potential effects of implementing actions for the conveyance of
15 Interim and Restoration flows and incorporation of fish habitat through Reach 4B and the
16 bypasses, consistent with the Settlement and the Act. This separate site-specific study
17 will provide the basis to determine whether and to what extent to expand channel
18 conveyance capacity in Reach 4B1 or use an alternative route. Under the proposed
19 project, Alternative C1, Reach 4B1 would convey at least 475 cfs and the Eastside and
20 Mariposa bypasses would convey any remaining Interim and Restoration flows.
21 Therefore, the proposed project provides greater flexibility in achieving the Restoration
22 Goal than would Alternative C2. The proposed action also allows Reclamation and DWR
23 to utilize the results of a site-specific study on the potential effects of modifying Reach
24 4B1 in determining the desired extent of modifications in Reach 4B1.

25 For these reasons, DWR rejects Alternative C2 (Reach 4B1 at 4,500 cfs, New Pumping
26 Plant Recapture).

27 **2.4 Summary of Findings**

28 Based on the foregoing findings and the information contained in the administrative
29 record, DWR has made one or more of the following findings with respect to each of the
30 potentially significant and significant environmental effects of the project, as identified in
31 the PEIS/R:

- 32 a. Changes or alterations have been required in, or incorporated into, the project that
33 would avoid or substantially lessen the significant environmental effects on the
34 environment.
- 35 b. Those changes or alterations would be wholly or partially within the
36 responsibility and jurisdiction of another public agency and have been, or could
37 and should be, adopted by that other public agency.
- 38 c. Specific economic, social, technological, or other considerations make infeasible
39 the mitigation measures or alternatives identified in the PEIS/R that would

1 otherwise avoid or substantially lessen the identified significant environmental
2 effects of the project.

3 Based on the foregoing findings and information contained in the record, it is hereby
4 determined that:

- 5 a. All significant effects on the environment resulting from approval of the project
6 would be eliminated or substantially lessened, where feasible.
- 7 b. Any remaining significant effects on the environment found unavoidable would
8 be acceptable because of the factors described in Section 3.0, "Statement of
9 Overriding Considerations," in this document.

10 DWR has chosen to adopt Alternative C1 and has rejected the No-Action (No-Project)
11 Alternative and Alternatives A1, A2, B1, B2, and C2 for reasons identified in Section
12 2.3.3, "Findings Related to Project Alternatives."

13

FINDINGS DETERMINATION

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

I adopt the Findings set forth in this Exhibit C which meet the requirements of CEQA Guidelines Section 15091. To the extent that these findings conclude that various mitigation measures are feasible and within the DWR's responsibility and jurisdiction, direct the DWR to implement these measures, thereby incorporating them as part of the proposed project.



Gary Bardini
Deputy Director
Department of Water Resources

9/20/12
Date

3.0 Statement of Overriding Considerations

In accordance with State CEQA Guidelines Section 15093, in determining whether or not to approve the project, DWR has balanced the economic, social, technological, and other benefits of the project against its unavoidable environmental risks, and has found that the benefits of the project outweigh the significant adverse environmental effects that would not be mitigated to less-than-significant levels, for the reasons set forth below. This statement of overriding considerations is based on DWR’s review of the PEIS/R and other information in the administrative record, including but not limited to the Stipulation of Settlement (Appendix A in the Draft PEIS/R); the San Joaquin River Restoration Act (Appendix B in the Draft PEIS/R); Plan Formulation (Appendix G in the Draft PEIS/R); other SJRRP CEQA and NEPA documents listed in Section 1.3, “Relationship to Other SJRRP NEPA and CEQA Documents,” in the Draft PEIS/R; and the comments and responses contained in the Final PEIS/R.

In 1988, a coalition of environmental groups, led by NRDC, filed a lawsuit, known as *NRDC, et al., v. Kirk Rodgers, et al.*, challenging the renewal of long-term water service contracts between the United States and CVP Friant Division contractors. On September 13, 2006, after more than 18 years of litigation, the Settling Parties, including NRDC, FWA, and the U.S. Departments of the Interior and Commerce, agreed on the terms and conditions of a Settlement, subsequently approved by the U.S. Eastern District Court of California on October 23, 2006. The San Joaquin River Restoration Settlement Act (Public Law 111-11) was signed into law on March 30, 2009, and authorizes and directs the Secretary of the Interior to implement the Settlement. Implementing Agencies include Reclamation, USFWS, NMFS, DWR, and DFG.

DWR is the CEQA lead agency in preparing the PEIS/R. The project-level actions addressed in the PEIS/R include actions to be undertaken by Reclamation, and the effects of these actions are the sole responsibility of Reclamation. DWR serves as the CEQA lead agency for the entire SJRRP, although DWR is not taking any discretionary action for the project-level actions analyzed in the PEIS/R. SWRCB has been identified as a CEQA Responsible Agency and is expected to take discretionary action in the form of a water rights approval related to the release and conveyance of Interim and Restoration flows. DFG has also been identified as a CEQA Responsible Agency and may take discretionary action pursuant to this PEIS/R or subsequent site-specific CEQA compliance documents. It is anticipated that SWRCB and DFG would use this PEIS/R in support of those actions. In the future, DWR and other state agencies are expected to complete project-level CEQA review in support of discretionary actions to implement some of the actions addressed at a program level in the PEIS/R.

As the CEQA lead agency for the PEIS/R, DWR has prepared this PEIS/R to provide sufficient project-level information to allow SWRCB, as a Responsible Agency, to (1) consider the environmental effects of the project-level actions, (2) mitigate or avoid

1 environmental effects of those parts of the project over which those agencies have
2 discretionary authority, and (3) make findings, required by State CEQA Guidelines
3 Section 15091, reflecting that its decision-making body have reviewed and considered the
4 project-level environmental effects presented in the PEIS/R. As a Responsible Agency, if
5 SWRCB decides to take action to approve its portion of the project, SWRCB must
6 approve feasible mitigation measures that would reduce the magnitude of, or avoid any,
7 significant impacts.

8 The Settlement contains aggressive key milestones from October 2009 through 2026,
9 with spring-and fall-run Chinook salmon introduction in December 2012, and full
10 Restoration Flows initiated in January 2014 (see Table 1-2, “Key Milestone Dates,” page
11 1-5, in the Draft PEIS/R). The SJRRP and its associated PEIS/R address a major fisheries
12 restoration and water supply program that is matched by only a few other major planning
13 efforts in state history. Many of the issues raised are complex and include large-scale
14 restoration efforts, water supply allocations, engineering, biological, technological,
15 social, and economic considerations. Uncertainties also exist that may affect SJRRP
16 implementation efforts, including the potential for groundwater seepage to occur within
17 the Restoration Area as a result of Interim and Restoration flows, uncertainty regarding
18 the physical condition of levees in and beyond the Restoration Area, the restoration of
19 Chinook salmon to the Restoration Area, the ability to release full Restoration flows
20 under the schedule anticipated in the Settlement, the effects of climate change, and
21 funding considerations.

22 DWR has diligently attempted to efficiently apply the available planning resources and
23 address these multiple issues to the extent feasible in the time available. However, as
24 described in the PEIS/R, substantial future project-level implementation tasks remain to
25 be completed.

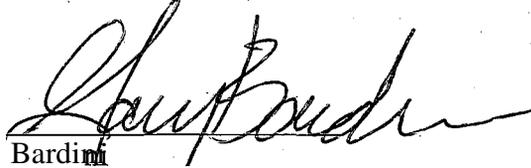
26 In light of these considerations, DWR finds that the specific economic, legal, social,
27 technological, and/or flood risk reduction benefits of implementing the Settlement and
28 the SJRRP outweigh the significant and unavoidable adverse environmental effects
29 described in Section 2.0, “Findings,” of this document. Therefore, the adverse
30 environmental effects are considered acceptable. DWR’s action regarding the SJRRP is
31 based on the specific reasons set forth above, based on the PEIS/R and information in the
32 administrative record.

33

STATEMENT OF OVERRIDING CONSIDERATIONS DETERMINATION

1
2
3
4
5
6
7
8
9
10
11
12
13

I adopt the Statement of Overriding Considerations set forth in this Exhibit D, which meets the requirements of CEQA Guidelines Section 15093.



Gary Bardini
Deputy Director
Department of Water Resources -

9/28/12
Date

Attachment 3

**Mitigation Monitoring and Reporting Program for the San Joaquin River Restoration Program
(For Project-Level Mitigation to be Implemented for PEIS/R Project-Level Actions)**

Mitigation Number	Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
7.0 Climate Change					
CLM-4 Project	Implement All Feasible Measures to Reduce Emissions.				
	The project proponent will provide a complete quantitative project-level analysis of GHG emissions as part of the subsequent environmental review for each individual project. The GHG analysis for each project shall be based on the types, locations, numbers, and operations of equipment to be used; the amount and distance of material to be transported; worker trips required; and electricity generation. The project proponent will be required to implement all feasible measures for reducing GHG emissions such as those listed in the Office of Planning and Research (OPR) <i>Technical Advisory on CEQA and Climate Change</i> (2008), and the SJVAPCD Guidance document (SJVAPCD 2009).	During project-level planning, design, and permitting	Reclamation		
8.0 Cultural Resources					
CUL-2 Project	Comply with Section 106 of the NHPA and Develop and Implement a Programmatic Agreement.				
	Reclamation will comply with the Federal NHPA Section 106 process to mitigate any significant, adverse impacts to cultural resources and historic properties to less than significant levels. Reclamation will develop a PA with the SHPO through the Section 106 consultation process. As part of the PA, Reclamation will identify archaeological sites and historic Native American places with the potential for significant impacts to occur due to changes in reservoir operations. In the event that release of Interim or Restoration flows are likely to cause damage to a historic property, Reclamation will comply with the process identified in the PA for the evaluation and recovery of data at any such cultural resource. Undocumented cultural resources may also exist in the reservoir basin. If such a site is identified during implementation of the alternatives and release of Interim or Restoration flows is likely to cause damage to such a site, Reclamation will ensure the evaluation and recovery of data at these sites.	Pre-construction (prior to ground-disturbing construction activities)	Reclamation		

Mitigation Number	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
16.0 Land Use					
LUP-4 Project	Implement Vehicular Traffic Detour Planning.				
	Project proponents of subsequent site-specific projects will conduct a Phase I Environmental Site Assessment to determine the presence of any hazardous materials at all construction sites at which ground-disturbing activities would occur. Project proponents of subsequent site-specific projects will implement all the recommended actions and measures identified in the Phase I Environmental Site Assessment.	During project-level planning, design, and permitting	Reclamation		
LUP-5 Project	Preserve Agricultural Productivity of Important Farmland to Minimize Effects of Inundation and Saturation Effects.				
	<p>If groundwater seepage effects cannot be avoided or are addressed by compensating affected landowners resulting in conversion of agricultural land to nonagricultural use or a reduction in productivity of agricultural land, Reclamation will implement the following measures to minimize effects of inundation and saturation of agricultural land by Interim and Restoration flows:</p> <ul style="list-style-type: none"> • During Interim Flows, Reclamation will determine the acreage of Important Farmland that after implementation of the Physical Monitoring and Management Plan would still be affected by inundation and/or soil saturation resulting from Interim or Restoration flows to an extent sufficient to convert Important Farmland to nonagricultural use. This would result in this land no longer being classified as Important Farmland. This acreage of Important Farmland may be identified through flow, groundwater, and seepage monitoring and modeling included in the action alternatives, or through alternative or additional monitoring or modeling, as necessary. <p>Reclamation will, as necessary, either (1) acquire agricultural conservation easements at a 1:1 ratio (i.e., acquire easements on 1 acre for each 1 acre of Important Farmland removed from agricultural use) to be held by land trusts or public agencies who are responsible for enforcement of the deed restrictions maintaining these lands in agricultural use, or (2) provide funds to a land trust or government program that conserves agricultural land sufficient to obtain easements on comparable land at a 1:1 ratio.</p>	Before and during release of Interim and Restoration flows	Reclamation		

Mitigation Number	Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
20.0 Public Health and Hazardous Materials					
PHH-9 Project	Coordinate with and Support Vector Control District(s).				
	<p>Reclamation will coordinate with and support FCDPH-Vector Control, Merced County Mosquito Abatement District, and the Madera County Mosquito and Vector Control District with implementation of their vector control activities in response to project-level actions as appropriate and feasible. Support will include but not be limited to the following actions:</p> <ul style="list-style-type: none"> • Coordinate with FCDPH-Vector Control, Merced County Mosquito Abatement District, and the Madera County Mosquito and Vector Control District to inform vector control districts regarding project implementation, and to provide information requested to support vector control activities along waterways affected by project-level actions. Provide FCDPH-Vector Control, Merced County Mosquito Abatement District, and Madera County Mosquito and Vector Control District alternative access as needed for vector monitoring and control in the Restoration Area where the program would eliminate existing access. • Implement applicable best management practices from the California Department of Public Health's <i>Best Management Practices for Mosquito Control on California State Properties</i> (CDPH 2008). <p>Provide public information for the community regarding control measures being implemented in the Restoration Area, the risk of mosquito-borne disease transmission, and personal protective measures.</p>	Before and during release of Interim and Restoration flows; during pre-construction (prior to ground-disturbing construction activities); and during construction	Reclamation		

Mitigation Number	Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
21.0 Recreation					
REC-9 Project	Extend Millerton Lake Boat Ramps or Construct a New Low-water Ramp to Allow Boat Launching at the Lower Pool Elevations that May Result from Interim and Restoration Flows during Dry and Critical-High Years.				
	Reclamation will monitor Millerton Lake pool elevations and, if pool elevations fall below the toe elevations of the two lowest-reaching boat ramps (which are at McKenzie Cove and Meadows), Reclamation will mitigate by either extending existing low-water launch ramp(s), developing a new ramp, or providing other temporary access to avoid loss of launching capacity and to permit boats to be launched on the lake with an additional 10 to 15 feet of drawdown during mid- and late-summer of Dry and Critical-High water years. Specific actions to modify or relocate facilities in the Millerton Lake SRA will be developed within two years. Implementation would be financed by Reclamation in coordination with DPR.	During implementation of Interim and Restoration flow releases	Reclamation		
REC-12 Project	Develop and Implement Recreation Outreach Program.				
	Reclamation will develop and implement a recreation outreach program, and will prepare and implement a recreation outreach plan. The plan will be completed within 1 year of the signing of the Record of Decision. Until such time as the plan is in place, Reclamation will continue to implement the recreation outreach plan developed for the most recent Interim Flows Project. The purpose of the recreation outreach program will be to inform the recreating public as well as agencies and organizations that serve the recreating public and protect public safety, of changes in river flows that would occur as a result of the Restoration Flows, and of the potential effects associated with those changes, including recreational boating hazards, particularly in Reach 1. The program will also inform the public of similar alternative boating opportunities in the area, such as those	Within 1 year of the signing of the Record of Decision with implementation during Interim and Restoration flow releases	Reclamation		

Mitigation Number	Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	<p>available on the lower Kings River below Pine Flat Reservoir.</p> <p>The outreach program will make use of a variety of methods and media to share information with the recreating public. Communication methods and actions may include:</p> <ul style="list-style-type: none"> • Messages posted on the SJRRP Web site and Web sites of agencies and organizations providing recreation access, facilities, and services and public safety services in each reach • Signage at public and private access points and facilities in each reach • Verbal messages delivered as part of regular recreation programs offered by agencies and organizations, such as the Public Canoe Program conducted by the SJRPCT • Signage to advise boaters of hazardous conditions and alternative locations for boating will comply with waterway marker requirements contained in CCR Title 14, Sections 7000 through 7007, under the authority of DBW • Attendance of a SJRRP representative at selected public events focused on San Joaquin River recreation, or the display and distribution of printed material at such events <p>Outreach will target both English-speaking and non-English-speaking residents. Additional measures, such as roving contacts and other methods that agencies may suggest, will be used to ensure target audiences that may not be reached by other means, such as young adults and those recreating on the river in undeveloped areas, will be reached.</p> <p>Central to the outreach program would be coordination with agencies and organizations that provide recreation access, facilities, and services in each reach. Specifically, this would include the following public and nonprofit agencies and organizations: the SJRPCT, SJRC, Fresno County, City of Fresno Parks, After School, Recreation, and Community Service (PARCS) Department, and DFG.</p>				

Mitigation Number	Mitigation Measure	Timing/Schedule	Implementation Responsibility	Completion of Implementation	
				Action	Date Completed
	Because boaters, swimmers, and waders may encounter less safe boating, swimming, and wading conditions due to Interim and Restoration flows, and may need assistance or may generate public nuisances (such as open fires) in areas that had not been commonly used or in previously dry river areas that may be less familiar to response agencies, key partners to help protect public safety will also include all emergency rescue, response, and enforcement agencies				
23.0 Transportation and Infrastructure					
TRN-7 Project	Implement Vehicular Traffic Detour Planning.				
	<p>Reclamation will prepare a long-term vehicular detour plan for routes that may be inundated as a result of the release of Interim and Restoration flows. Reclamation will complete the vehicular detour plan in accordance with current Caltrans Standard Plans and Specifications within 1 year of the signing of the Record of Decision. The vehicular detour plan will provide convenient and parallel vehicular traffic detours for routes closed because of inundation by Interim and Restoration flows. Until the long-term vehicular detour plan is completed, Reclamation will continue to implement the vehicular detour plan currently in place for the release of Interim Flows.</p> <p>The detour plan will include an assessment of existing roadway conditions, whether paved or unpaved, and provisions for repair and maintenance if the roadway conditions are substantially degraded from increased use. After the detour route is identified and before flows are released that would overtop existing crossings, the condition of the detour road surface will be assessed and documented in a technical memorandum. The technical memorandum will be submitted to the local agency responsible for maintenance of the road, e.g., county public works department if it is a county road or land owner if the proposed detour is a private road. After the detour is no longer needed, the condition of the road surface will be assessed and documented in a technical memorandum. The technical memorandum</p>	Within 1 year of the signing of the Record of Decision; during project-level planning, design, and permitting; and during construction	Reclamation		

	<p>will identify substantial changes in the condition of the road surface, such as potholing or rutting. Repair and maintenance actions needed to restore the road surface to pre-detour conditions will be identified in the technical memorandum. The technical memorandum will be submitted to the local maintenance agency. In coordination with the local maintenance agency, the repair and maintenance actions may be conducted by Reclamation or by the local maintenance agency to be proportionately reimbursed by Reclamation.</p> <p>The detour plan will prioritize paved roads for use as detour routes. If paved roadway detours are not feasible during Interim or Restoration flow road inundation periods, the detour plan will require that VDE from unpaved detour routes will be limited to 20 percent opacity by implementing at least one of the following control measures identified in SJVAPCD regulations regarding stabilizing unpaved roadways:</p> <ul style="list-style-type: none"> • Watering • Uniform layer of washed gravel • Chemical/organic dust stabilizers/suppressants in accordance with the manufacturer's specifications • Roadmix • Paving <p>Any other method that can be demonstrated to the satisfaction of the Air Pollution Control Officer that effectively limits VDE to 20 percent opacity and meets the conditions of a stabilized unpaved road.</p>				
--	--	--	--	--	--

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

DIVISION OF WATER RIGHTS

IN THE MATTER OF LICENSE 1986 AND PERMITS 11885, 11886, 12721, 11967, 11887, 12722,
12723, 12725, 12726, 12727, 11315, 11316,
11968, 11969, 11970, 12860, 11971, 11972, 11973 AND 12364
(APPLICATIONS 23, 234, 1465, 5626, 5628, 5638, 9363, 9364, 9366, 9367, 9368, 13370, 13371,
15374, 15375, 15376, 15764, 16767, 16768, 17374, AND 17376)
OF U.S. BUREAU OF RECLAMATION

AND PERMIT 16479 (APPLICATION 14443) OF DEPARTMENT OF WATER RESOURCES

**PETITIONS FOR TEMPORARY CHANGE
INVOLVING THE TRANSFER OF 196,000 ACRE-FEET OF WATER**

BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

1.0 SUBSTANCE OF PETITIONS

1.1 Description of the Transfer. On May 1, 2013, the U.S. Bureau of Reclamation (Reclamation) and the Department of Water Resources (DWR) filed with the State Water Resources Control Board (State Water Board), Division of Water Rights (Division), Petitions for Temporary Change under Water Code Section 1725, et seq.

With the petitions, Reclamation requests a one-year modification of License 1986 and Permits 11885, 11886, 12721, 11967, 11887, 12722, 12723, 12725, 12726, 12727, 11315, 11316, 11968, 11969, 11970, 12860, 11971, 11972, 11973 and 12364 and DWR requests a one-year modification of Permit 16479 to temporarily change the authorized place of use of (1) the Reclamation license and permits to include the State Water Project (SWP) authorized place of use downstream of Harvey O. Banks Pumping Plant (Banks); and (2) the DWR permit to include the Central Valley Project (CVP) authorized place of use downstream of Jones Pumping Plant (Jones). The maximum total transfer quantity will be 196,000 acre-feet (af). Temporary changes approved pursuant to Water Code section 1725 may be effective for up to one year from the date of approval.

2013 Water Supply Conditions

Water supply conditions are currently classified as "Dry" for the Sacramento River basin and "Critical" for the San Joaquin River basin. The dry conditions in 2013 to date have resulted in allocations of 35 percent of contract Table A amounts to the SWP contractors and only 20 percent of contract amounts to CVP agricultural contractors south of Jones.

In addition to annual hydrology conditions, the ability of DWR and Reclamation to deliver Project water south of the Sacramento-San Joaquin Delta (Delta) is affected by operational restrictions which limit diversions from the Delta. The operational restrictions include those contained in State Water Board Decision 1641 (D1641) as well as the current biological opinions issued for the protection of Delta smelt and anadromous fish and marine mammal species. Operational limitations severely restrict Project exports through June, impacting the ability of the Projects to capture excess spring flows and move water from upstream storage to contractors south of the Delta.

Changes Proposed Under the Transfer

The petitions will further the following list of projects:

- a. CVP-SWP Exchange under a Consolidated Place of Use Petition to Facilitate Conveyance of Water to Santa Clara Valley Water District

Santa Clara Valley Water District (SCVWD) contracts for a water supply from both the CVP (delivered from San Luis Reservoir through the San Felipe Division) and the SWP (delivered via the South Bay Aqueduct (SBA)). Based on projected operating conditions for 2013, total storage in San Luis Reservoir may drop to levels which can result in impaired water quality, potentially causing reductions in CVP supplies available through the San Felipe Division. Further, aging infrastructure in the San Felipe Division could result in both planned and unplanned facility shutdowns for maintenance and repair. In 2013, there are several operational and maintenance issues that may require delivery of the SCVWD's CVP or SWP supplies through an exchange. Up to 40,000 af of the SCVWD's CVP and/or SWP supplies may be subject to these alternative conveyance approaches.

When SCVWD's pumping capacity through the San Felipe Division is limited, meeting district water demands can be impacted, necessitating the request to transfer SCVWD's CVP water through an exchange with the SWP. The proposed transfer includes an exchange of CVP and SWP water to allow SCVWD's CVP water to be pumped at Jones and delivered to DWR at O'Neill Forebay for use within the SWP service area south of O'Neill, and in exchange, an equal amount of SWP water would be pumped at Banks and delivered to SCVWD through the SBA.

In addition, planned and unplanned shutdowns on the SBA as well as within SCVWD's service area may prevent deliveries of SWP water through the SBA. Reclamation and DWR propose an exchange of CVP and SWP water to allow the delivery of SCVWD's SWP through an exchange with CVP. SWP water will be pumped at Banks and delivered to the CVP at O'Neill Forebay for use within the CVP service area south of O'Neill. In exchange, an equal amount of CVP water will be pumped at Jones Pumping Plant and delivered to SCVWD through the San Felipe Division.

The proposed exchanges would not increase the total amount of CVP or SWP water allocated to SCVWD by DWR or Reclamation.

- b. Oak Flat Water District/Del Puerto Water District Exchange

Oak Flat Water District (Oak Flat), an SWP contractor, and Del Puerto Water District (Del Puerto), a CVP contractor, are adjacent districts located north of San Luis Reservoir in San Joaquin, Stanislaus and Merced Counties. The districts share common landowners with water supply allocations from both projects. These landowners have requested the ability to optimize the application of available supplies on their combined properties. The proposed exchange would allow 1) the delivery of 1,000 af of the landowners' allocated CVP supplies through SWP turnouts on the California Aqueduct to lands within Del Puerto; 2) delivery of a portion of their allocated CVP supply to lands within Oak Flat; and 3) delivery of a portion of their allocated SWP supplies through CVP turnouts on the Delta Mendota Canal to lands within Del Puerto.

In addition to the transfer described above, Oak Flat and Del Puerto propose an even exchange to affect the delivery of up to 2,000 af of Del Puerto's 2013 CVP allocation. A portion of the lands within Del Puerto adjacent to Oak Flat are more efficiently served from Oak Flat's turnouts on the California Aqueduct. Del Puerto proposes to deliver a portion of its 2013 CVP allocation to the lands adjacent to Oak Flat through an even exchange with the SWP. Up to 2,000 af of SWP water will be delivered through the Oak Flat turnouts on the California Aqueduct. An equal amount of CVP water will be delivered to the SWP at O'Neill Forebay. The proposed exchanges will not result in any increase in pumping from the Delta by either the SWP or CVP, and will result in no increase in total SWP or CVP allocations to either district.

c. Kern County Water Agency – Kern Tulare Water District Exchange

Kern County Water Agency (KCWA) is an SWP contractor with numerous member units within Kern County. Kern Tulare Water District (Kern Tulare) is a CVP contractor located in Kern County with a contract for water delivered through the Cross Valley Canal (CVC). Due to limited capacity at Jones, conveyance of CVP-CVC water through SWP facilities is often required to provide deliveries to the CVC contractors. As a result of projected hydrologic conditions and anticipated operational restrictions, it is possible there will be no capacity to move CVC water through Jones or Banks until fall 2013. In order to assist Kern Tulare in meeting peak irrigation demands this summer, KCWA will deliver up to 16,000 af of SWP water to Kern Tulare through the summer months. In exchange, Kern Tulare will deliver an equivalent amount of CVP-CVC water to KCWA in the fall.

d. Castaic Lake Water Agency – San Luis Water District

Castaic Lake Water Agency (CLWA), an SWP contractor, entered in to a long-term water banking and exchange program with Rosedale-Rio Bravo Water Storage District (RRBWSD) to store up to 100,000 af of its SWP contract supply in the RRBWSD Water Banking and Recovery Program. CLWA also entered into a long-term agreement with Buena Vista Water Storage District (BVWSD) for the purchase of up to 11,000 af per year of Kern River water appropriated under BVWSD's pre-1914 water rights to high flows on the Kern River. The high flow Kern River water is diverted and placed in groundwater storage for later extraction. The pre-1914 water purchased by CLWA is stored in its share of the RRBWSD banking and storage program. CLWA is proposing to transfer up to 11,000 af of its purchased pre-1914 water to San Luis Water District (SLWD). The transfer would be accomplished by exchange. CLWA will provide up to 11,000 af of its 2013 SWP supply to SLWD. CLWA will retain up to 11,000 af of pre-1914 water in its portion of the RRBWSD program.

e. Arvin-Edison Water Storage District/Metropolitan Water District Program

Groundwater Banking

Metropolitan Water District of Southern California (Metropolitan) stores a portion of its SWP supply in CVP contractor Arvin-Edison Water Storage District's (AEWSD) groundwater banking facilities depending on annual allocations. If requested, AEWSD is obligated to return previously banked SWP water to Metropolitan. In the absence of this proposed exchange, previously banked SWP water can only be recovered from the AEWSD banking facilities through groundwater extraction. The expansion of the CVP place of use will allow AEWSD the option and flexibility to return Metropolitan's banked water through an exchange of its available CVP Delta/San Luis Reservoir, or Friant surface supplies (CVP water). The exchange will allow AEWSD greater flexibility in the scheduling and use of its CVP supplies as well as a reduction in energy and costs associated with groundwater extraction. CVP water supplied to Metropolitan by AEWSD in lieu of extraction to recover previously stored SWP water will result in a balanced exchange or one-for-one reduction of Metropolitan's groundwater banking account with AEWSD. The exchange will occur only to the extent Metropolitan has a positive bank account. Upon return of water to Metropolitan, Metropolitan's previously banked SWP water would transfer to AEWSD.

Regulation Program

Additionally, the requested change in consolidated place of use would allow AEWSD to deliver CVP water supplies to Metropolitan first and receive back SWP water supplies in exchange at a later time. This program better facilitates the use of AEWSD CVP water supplies that have a limited opportunity for use under current CVP operations. The ability to regulate water in this manner reduces the need to directly recharge and subsequently extract supplemental water on a one-for-one basis.

Fall/Winter Supplies Exchange

In the event that hydrologic conditions become wetter than expected later in the year (2013 fall or 2013/2014 winter), and AEWS D believes that there may be limited ability to carry over 2013 CVP supplies in CVP reservoirs, AEWS D CVP water supplies would be delivered to Metropolitan to reduce risk of spill and subsequent potential loss of water supplies. The CVP water will be delivered to Metropolitan by exchange in San Luis Reservoir or directly into the California Aqueduct via the Friant Kern Canal and AEWS D facilities. Metropolitan would later return a lesser amount (return 2 af for every 3 af regulated) to AEWS D. The unbalanced nature of the exchange reflects the compensation to Metropolitan for its water management services, which would protect a portion of the water from spilling. In the absence of the exchange with Metropolitan, AEWS D would attempt to avoid spilling the water by delivering the available CVP contract supplies to groundwater banking programs within the AEWS D service area or other areas that are within the CVP place of use.

One of the benefits of the above exchanges is reduction of the impacts to AEWS D of the San Joaquin River Restoration Program (SJRRP). The exchanges increase AEWS D's ability to efficiently use water supplies and increase the opportunities to complete the return of SJRRP releases to AEWS D.

The proposed exchanges total up to 100,000 af of CVP water supplies for all three programs described above. CVP Delta supplies will be provided as stated above. Friant Division CVP water will be provided directly via delivery from the Friant-Kern Canal and AEWS D's distribution system, including its connections to the California Aqueduct at Milepost 227 (Reach 14C) or via its capacity in the Cross Valley Canal to the California Aqueduct at Tupman/Milepost 238 (Reach 12E).

f. Kern County Water Agency to Westlands

KCWA proposes to deliver up to 10,000 af of its 2013 SWP allocation to land within Westlands Water District (Westlands) to facilitate the delivery of previously stored CVP water in the Semitropic Water Storage District (Semitropic) groundwater banking program. Two landowners, Paramount Farming Company and Poso Creek Water Company, have agricultural operations in both KCWA and Westlands and have both a SWP and CVP contract supply. The landowners have banked CVP water in the Semitropic program. The landowners plan to recover up to 10,000 af of their previously stored CVP water. Delivery of the CVP water currently stored in Semitropic will be accomplished through exchange. KCWA will deliver up to 10,000 af of SWP water to Westlands turnouts on the joint use facilities. An equivalent amount of the landowners' water stored in Semitropic will be transferred to KCWA.

g. Kern County Water Agency to Westlands – Kern River Water

KCWA proposed to deliver up to 16,000 af of its 2013 SWP allocation to Westlands to facilitate the delivery of Kern River water rights water purchased by Westlands. Up to 7,600 af of Nickel Kern River water rights previously stored in Semitropic along with up to 8,400 af of 2013 Kern River water will be assigned to KCWA. The exchange will be a one for one exchange. The KCWA SWP Table A water will be delivered to Westlands turnouts in Reaches 4-7 of the joint-use San Luis Canal.

2.0 BACKGROUND

2.1 Existing Place of Use

The service areas of the SWP is shown on maps 1878-1, 1878-2, 1878-3, and 1878-4 (on file under Application 5629) and the service areas of the CVP is shown on map 214-208-12581 (on file under Application 5626).

2.2 Place of Use under the Proposed Transfer

The petitioners request the temporary addition of the CVP service area downstream of Jones to the place of use under DWR's Permit 16479. The petitioners also request the temporary addition of the SWP service area downstream of Banks to the place of use under Reclamation license and permits noted above. These temporary additions would be for the purpose of completing the transfers/exchanges described above and would be effective from the date the petitions are approved for a period of one year. The areas to be added to the SWP are shown on Map 214-202-83 and the areas added to CVP are shown on Map 214-202-84 on file with the State Water Board under Applications 14443 and 5626, respectively.

2.3 Governor's 2013 Executive Order to Streamline Approvals for Water Transfers

On May 20, 2013, Governor Edmund G. Brown Jr. issued Executive Order B-21-13 to streamline approvals for water transfers to address the dry conditions and water delivery limitations in 2013 to protect California's agriculture. The Governor's Order directs the State Water Board and DWR to expedite the review and processing of temporary transfers for 2013 (in accordance with the Water Code) and to assist water transfer proponents and suppliers, as necessary, provided that the transfers will not harm other legal users of water and will not unreasonably affect fish, wildlife, or other instream beneficial uses. The State Water Board and DWR were also directed to make all efforts to coordinate with relevant federal agencies, water districts, and water agencies to expedite the review and approval of water transfers in California.

3.0 LEGAL REQUIREMENTS FOR TEMPORARY TRANSFERS

Temporary change petitions receive approval where the water transfer: "would only involve the amount of water that would have been consumptively used or stored by the permittee or licensee in the absence of the proposed temporary change, would not injure any legal user of water, and would not unreasonably affect fish, wildlife or other instream beneficial uses." (Wat. Code, §§ 1725, 1727.) Contractors are "legal users of water" for purposes of the no injury rule for transfers. However, the extent to which they are protected from injury is only to the extent that their contractual rights are violated: a harm within the bounds permitted by their contract is not legally cognizable. (*State Water Resources Control Board Cases* (2006) 135 Cal.App.4th 674, 803-805).

4.0 PUBLIC NOTICE AND COMMENTS

On May 7, 2013, public notice of the petitions for temporary change was provided as follows: 1) via first class mail to interested parties; 2) by posting on the Division's website; 3) via the State Water Board's Lyris email notification program; and 4) by publication in the Sacramento Bee and the Stockton Record. California Water Impact Network (C-WIN), California Sportfishing Protection Alliance (CSPA), and AquAlliance submitted a joint comment letter to the State Water Board on June 3, 2013.

4.1 Joint Comments of C-WIN, CSPA, and AquAlliance

On June 3, 2013, the commenters indicated their concerns regarding the transfer proposal. The concerns extend beyond the scope of the current transfer, and encompass all pending 2013 water transfers being processed by the State Water Board. To expedite transfer processing, the concerns are not repeated herein; however, the State Water Board response letter dated June 27, 2013 is incorporated by reference. The response letter details the issues raised by the commenters. Reclamation also responded to the commenters' letter and a summary of their response is provided below as well.

Reclamation Response:

On June 14, 2013, Reclamation responded to the commenters letter and indicated that Reclamation

and DWR filed almost identical petitions to consolidate the CVP and SWP places of use on three previous occasions, and the State Water Board has made findings on each previous petition that the consolidation of the places of use, and the actions implemented by the consolidation, will not harm other legal users of water, fish, wildlife, or other instream beneficial uses. Reclamation believes it established a prima facie case regarding the petition pursuant to Water Code section 1727 (c) since the State Water Board has approved three similar petitions in the past.

Water Code section 1727 (c) requires that the commenters bear the burden of proof that the proposed consolidated place of use is injurious to other legal users of water or fish, wildlife, or other instream beneficial uses if the State Water Board has determined the petitioners have established a prima facie case. Reclamation claims the commenters have not provided any specific evidence that meets their burden of proving that the proposed temporary change would not comply with paragraphs (1) and (2) of Water Code section 1727 (b).

State Water Board Response:

The State Water Board response letter identifies a need to evaluate the following issues in the present order: (a) whether there is a change in return flow associated solely with the transfer, and (b) whether the transfer would only involve the amount of water that would have been consumptively used or stored by the permittee in the absence of the proposed temporary change or conserved pursuant to Water Code section 1011.

In addition, the response letter indicates that use of the Delta Pumps for transfer purposes should be conditioned on compliance by DWR and Reclamation with D1641, all applicable biological opinions and court orders, and any other conditions imposed by other regulatory agencies applicable to these operations.

The objection is addressed upon a finding that: (a) no change in return flows is occurring, and (b) the transfer only involves water that would have been consumptively used or stored. Approval of the petition is also contingent on inclusion of condition 6 of this order. The required evaluations are found in Section 5 of this order.

5.0 REQUIRED FINDINGS OF FACT

5.1 Transfer Only Involves Water That Would Have Been Consumptively Used or Stored

Before approving a temporary change due to a transfer or exchange of water pursuant to Chapter 10.5 of Part 2 of Division 2 of the Water Code, the State Water Board must find that the transfer would only involve the amount of water that would have been consumptively used or stored by the permittee or licensee in the absence of the proposed temporary change or conserved pursuant to Section 1011. (Wat. Code, §§ 1725, 1726.) Water Code section 1725 defines “consumptively used” to mean “the amount of water which has been consumed through use by evapotranspiration, has percolated underground, or has been otherwise removed from use in the downstream water supply as a result of direct diversion.”

The projects proposed under these petitions involve water that would have been consumptively used or stored in the absence of the transfers/exchanges. According to the petitions, the transfer/exchange will not result in the diversion of additional water from the Delta or the delivery of more water to any individual water supplier or user than has been delivered historically. Instead, the requested change will provide the operational flexibility the Projects need to get available supplies where they are needed most and in the most efficient manner possible. The water proposed for transfer/exchange consists of either:

- a) Water stored pursuant to the specified license and permits of the CVP and SWP; or
- b) Water directly diverted pursuant to the specified license and permits of the CVP and SWP for use outside of the Delta watershed, and thus removed from use in the downstream water supply.

In light of the above, I find in accordance with Water Code section 1726, subdivision (e) that the water proposed for transfer pursuant to this Order would be consumptively used or stored in the absence of the proposed temporary change.

5.2 No Injury to Other Legal Users of Water

Before approving a temporary change due to a transfer or exchange of water pursuant to Article 1 of Chapter 10.5 of Part 2 of Division 2 of the Water Code, the State Water Board must find that the transfer would not injure any legal user of the water during any potential hydrologic condition that the Board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of the water, or reduction in return flows. (Wat Code, § 1727, subd. (b)(1).)

The total quantity of diversions from the Delta will not change. The timing of diversions from the Delta will not change, however the timing of deliveries south of the Delta diversion facilities to specific SWP or CVP contractors will change as detailed above in paragraphs 1.1 (b), (d) and (f). The delivery rates from San Luis Reservoir may be slightly different. The scheduling of the deliveries will be coordinated between DWR and Reclamation so as not to adversely impact any SWP or CVP contractor deliveries. Adequate capacity in the California Aqueduct and in the Delta Mendota Canal is available, and will not be adversely impacted as a result of the exchanges. The terms and conditions contained in D1641 protect other in-basin diverters from any potential impacts of Project diversions of natural flow. DWR and Reclamation are required to operate in conformance with D1641 and all other applicable regulatory restrictions governing SWP and CVP operations. There are no other legal users downstream of the points of diversion that would be affected by the exchanges. Overall, there will be no impact to other legal users of water.

In light of the above, I find in accordance with Water Code section 1727, subdivision (b)(1) that the proposed temporary change will not injure any legal user of the water.

5.3 No Unreasonable Effect on Fish, Wildlife, or Other Instream Beneficial Uses

In accordance with Water Code section 1729, temporary changes involving transfer of water are exempt from the requirements of the California Environmental Quality Act (Public Resources Code section 21000 et seq.) However, the State Water Board must consider potential impacts to fish, wildlife, or other instream beneficial uses in accordance with Water Code section 1727(b)(2).

The water is diverted out of the watershed from which it originates in conformance with the provisions of the respective DWR and Reclamation water right license and permits governing those diversions. There will be no change in the amount of SWP or CVP water diverted at the Banks or Jones Pumping Plants. Therefore, there will be no change in flow or water quality conditions in the Delta. All water exported at the SWP and CVP pumping plants is pumped consistent with the criteria contained in D1641 and all other applicable regulatory restrictions governing SWP and CVP operations.

Exchanges similar to those proposed herein occurred in 2009, 2010 and 2012 consistent with the provisions of WR 2009-0033, WR 2010-0032-DWR and a July 6, 2012 State Water Board order on transfer. No measurable effects on fish and wildlife or the environment were noted from those transfers. The exchanges will not result in an increase in deliveries to any drainage impaired lands, or in a measurable change in quantity or quality of return flows.

In light of the above, I find in accordance with Water Code section 1727, subdivision (b)(2) that the proposed transfer will not unreasonably affect fish, wildlife, or other instream beneficial uses.

6.0 STATE WATER BOARD'S DELEGATION OF AUTHORITY

On June 5, 2012, the State Water Board adopted Resolution 2012-0029, delegating to the Deputy Director for Water Rights the authority to act on petitions for temporary change if the State Water Board does not hold a hearing. This Order is adopted pursuant to the delegation of authority in section 4.4.2 of Resolution 2010-0029.

7.0 CONCLUSIONS

The State Water Board has adequate information in its files to make the evaluation required by Water Code section 1727, and therefore I find as follows:

I conclude that, based on the available evidence:

1. The proposed transfer involves only an amount of water that would have been consumptively used or stored in the absence of the temporary change.
2. The proposed temporary change will not injure any legal user of water.
3. The proposed temporary change will not have an unreasonable effect upon fish, wildlife, or other instream beneficial uses.

ORDER

NOW, THEREFORE, IT IS ORDERED that the petitions filed for temporary change for transfer of 196,000 af of water are approved.

All existing terms and conditions of the DWR and Reclamation license and permits remain in effect, except as temporarily amended by the following provisions:

1. The transfer/exchanges of water are limited to the period commencing on the date of this Order and continuing for one year.
2. The place of use under DWR Permit 16479 is temporarily expanded to include portions of the CVP service area shown on map titled *Petition for Temporary Change to Modify SWP and CVP Places of Use, Areas to be added to SWP Authorized Place of Use*, Map 214-202-83.
3. The place of use under Reclamation License 1986 and Permits 11885, 11886, 12721, 11967, 11887, 12722, 12723, 12725, 12726, 12727, 11315, 11316, 11968, 11969, 11970, 12860, 11971, 11972, 11973, and 12364 is temporarily expanded to include portions of the SWP service area as *Petition for Temporary Change to Modify SWP and CVP Places of Use, Areas to be added to CVP Authorized Place of Use*, Map No.214-202-84.
4. Water transferred/exchanged pursuant to this Order shall be limited to 196,000 af as specifically described in item 1.1 (a) through (g) in "Substance of Petitions" above. Although the transfer limits water service as noted herein, the one-for-one repayment of exchanged transfer water is not limited to service areas (a) through (g), but may occur within the more general service areas shown on Maps 214-202-83 and 214-202-84.
5. DWR and Reclamation shall not increase their allocations of water to the transfer/exchange parties beyond the quantities authorized by existing contract for purposes of this transfer/exchange.
6. Diversion of water at the Delta Pumps pursuant to this Order is subject to compliance by the SWP and CVP project operators with the objectives set forth in Tables 1, 2 and 3 on page 181 to 187 of State Water Board's Revised Decision 1641 (D-1641), or any future State Water Board order or decision implementing Bay-Delta water quality objectives at those points of diversion/rediversion, including compliance with the various plans required under D-1641 as prerequisites for the use of the Joint Points of Diversion by DWR and Reclamation. Diversion of water at the Delta Pumps pursuant to this Order is subject to compliance by the pumping plant operators with all applicable biological opinions, court orders, and any other conditions imposed by other regulatory agencies applicable to these operations.
7. Within 90 days of the completion of the transfer; but no later than September 30, 2014, the Petitioners shall provide to the Deputy Director for Water Rights a report describing the transfer authorized by this Order. The report shall include the following information:
 - a. Separate data identifying the monthly and total volumes of water delivered to each of the transfer/exchange parties pursuant to this Order.
 - b. The monthly and total amounts of Delta and delivered water to each of the transfer/exchange parties for the period covered by this transfer. This total shall include SWP and CVP deliveries, other water transfers, and any other amount of Delta water each location received.
 - c. Documentation that the water transferred/exchanged did not result in an increase in water diverted to SWP and CVP facilities from the source waters of DWR's permit and Reclamation's license and permits beyond the quantities that would otherwise have been diverted absent the transfer.

8. Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this transfer and temporary change order, including method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.

The continuing authority of the State Water Board also may be exercised by imposing specific requirements over and above those contained in this order to minimize waste of water and to meet reasonable water requirements without unreasonable draft on the source.

9. This order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 1531-1544). If a "take" will result from any act authorized under this transfer, the petitioners shall obtain authorization for an incidental take permit prior to construction or operation. Petitioners shall be responsible for meeting all requirements of the applicable Endangered Species Act for the temporary transfer authorized under this order.
10. I reserve jurisdiction to supervise the transfer, exchange, and use of water under this order, and to coordinate or modify terms and conditions, for the protection of vested rights, fish, wildlife, instream beneficial uses and the public interest as future conditions may warrant.

STATE WATER RESOURCES CONTROL BOARD

ORIGINAL SIGNED BY
JAMES W. KASSEL FOR:

Barbara Evoy, Deputy Director
Division of Water Rights

Dated: JUL 01 2013

STATE OF CALIFORNIA STATE WATER RIGHTS BOARD

ORDER

APPLICATION 23

PERMIT 273

LICENSE 1986

ORDER ALLOWING CHANGE IN PLACE OF USE

WHEREAS license was issued to Miller and Lux, Incorporated, and was filed with the County Recorder of Madera County on October 31, 1939, and

WHEREAS license was subsequently assigned to United States Bureau of Reclamation, and

WHEREAS licensee has established to the satisfaction of the State Water Rights Board that the change in place of use under Application 23, Permit 273, License 1986, for which petition was submitted on December 23, 1959, will not operate to the injury of any other legal user of water and the Board so finds;

NOW THEREFORE IT IS ORDERED that permission be and the same is hereby granted to change the place of use under said Application 23, Permit 273, License 1986, to a place of use described as follows, to wit:

WITHIN A GROSS AREA OF 5,431,000 ACRES INCLUDED AS A PART OF THE AREA SHOWN TO BE SERVED BY SAN JOAQUIN RIVER WATER ON MAPS 214-208-3330 AND 214-208-3331 REVISED AS OF JULY 19, 1960.

WITNESS my hand and the seal of the State Water Rights Board of the State of California this 30th day of December, 1960



L. K. Hill
L. K. Hill
Executive Officer

STATE OF CALIFORNIA—STATE WATER RIGHTS BOARD

ORDER

APPLICATION 23

PERMIT 273

LICENSE 1986

ORDER ALLOWING CHANGE IN POINT OF DIVERSION
AND CHANGE IN PLACE OF USE

Licensee having established to the satisfaction of the State Water Rights Board that the change in point of diversion and change in place of use under Application 23, Permit 273, License 1986, for which petition was submitted on December 20, 1951 will not operate to the injury of any other legal user of water, the Board so finds, and

IT IS ORDERED that permission be and the same is hereby granted to change the point of diversion under said Application 23, Permit 273, License 1986, to point of diversion described as follows, to wit:

FRIANT DAM, NORTH THIRTY-NINE DEGREES, THIRTY MINUTES WEST (N39°30'W), TWO THOUSAND TWO HUNDRED (2200) FEET FROM S $\frac{1}{4}$ CORNER OF SECTION 5, T11S, R21E, MDB&M, BEING WITHIN NW $\frac{1}{4}$ OF SW $\frac{1}{4}$ OF SAID SECTION 5.

IT IS FURTHER ORDERED that permission be and the same is hereby granted to change the place of use under said Application 23, Permit 273, License 1986, to a place of use described as follows, to wit:

A GROSS AREA OF 4,986,000 ACRES WITHIN THE POTENTIAL SERVICE AREA SHOWN ON MAP NUMBER 214-212-37 OF THE UNITED STATES DATED APRIL 10, 1951 AND REVISED DECEMBER 13, 1951 AND ENTITLED "POTENTIAL SERVICE AREA, SAN JOAQUIN RIVER APPLICATIONS NUMBERS 23, 234, 1465, 5638,

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

ORDER

APPLICATIONS 23 (LICENSE 1986), 234 (PERMIT 11885), 1465 (PERMIT 11886), and 5638 (PERMIT 11887)

**ORDER APPROVING TEMPORARY URGENCY CHANGE
TO ADD MENDOTA POOL AS AN ADDITIONAL POINT OF REDIVERSION**

WHEREAS:

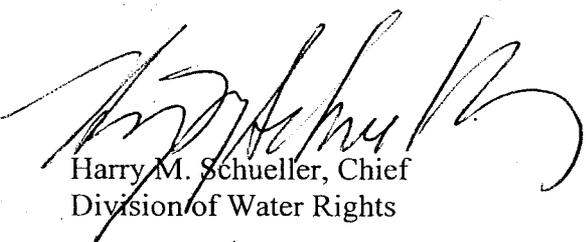
1. The U. S. Bureau of Reclamation holds License 1986 and Permits 11885, 11886, and 11887 for a combined direct diversion of 6,500 cubic feet per second and combined storage of 2,210,000 acre-feet per annum of water in Lake Millerton (Friant Dam).
2. Permittee petitioned the State Water Resources Control Board, (SWRCB) Division of Water Rights for a temporary urgency change pursuant to Water Code Section 1435 to add a point of rediversion at the Mendota Pool on the San Joaquin River. The petition was filed to facilitate a short-term exchange of CVP water between the Friant Division contractors and other CVP contractors south of the Sacramento-San Joaquin Delta in support of a proposed water management demonstration program (program) for the San Joaquin River. The program was developed by the Friant Water Users Authority and a coalition of environmental and fishing organizations to evaluate benefits to riparian habitat along the San Joaquin River above Mendota Pool and to gather information about the operational impacts of such a program. The program is intended to be completed by November 1, 1999.
3. The program involves a one-time series of releases from Friant Dam (estimated total of 40,000 acre-feet) which will be delivered down the San Joaquin River to the Mendota Pool to meet Reclamation's water service obligation. This water will be in exchange of an equivalent amount of CVP water that would otherwise have been delivered to the Mendota Pool from the Delta. The releases will occur from mid-June through October 1999 and will consist of CVP water that is above the minimum releases ordinarily necessary to meet the requirements of water right settlement contracts between Friant Dam and Gravelly Ford.
4. In order to implement the program, the Friant Contractors have agreed to allow a portion of the Friant Division Water supplies that they would normally receive during water year March 1, 1999 through February 29, 2000 to be released from Friant Dam into the San Joaquin River, provided they receive an equivalent amount of water from other sources during that time period. An equivalent amount of water that would normally be delivered to the Mendota Pool from the Delta will be wheeled via the Federal CVP/State Water Project facilities to the Cross Valley Canal and subsequently returned to the Friant service area. Use of the State Water Project Facilities will be under an agreement with the Department of Water Resources.

5. No new or increased Sacramento/San Joaquin Delta exports will occur under the proposed exchange.
6. The Permittee has an urgent need to make the proposed change.
7. The petitioned change will not operate to the injury of any other lawful user of water, will not have an unreasonable effect upon fish, wildlife, or other instream beneficial uses, and is in the public interest.
8. This action is exempt from the California Environmental Quality Act under Class 6 pursuant to Title 14, California Code of Regulations Section 15306.
9. Water Code Section 1438 allows the SWRCB to issue a temporary urgency change in advance of notice.

NOW, THEREFORE, IT IS ORDERED THAT:

1. The Mendota Pool, located in the SE ¼ of the SE ¼ of Section 19, T13S, R15E, MDB&M, is added as a temporary point of rediversion to License 1986 and Permits 11885, 11886, and 11887.
2. The place of use in Permits 12721, 12722, 12723, 12860, 11315, 11316, and 11318 is temporarily expanded to include the Friant service area to the extent necessary to accomplish the program referenced in this order. The increase in place of use is allowed provided the delivery of water to the Friant service area does not result in an increase in Delta exports above that which would have occurred absent the program.
3. This order shall take effect immediately and be in force until January 8, 2000.

Dated: **JUL 08 1999**


Harry M. Schueller, Chief
Division of Water Rights

STATE OF CALIFORNIA—STATE WATER RIGHTS BOARD

Page 2

ORDER

APPLICATION 23

PERMIT 273

LICENSE 1986

5817 TO 5822 INCLUSIVE AND 9369" AND FILED OF RECORD WITH
LICENSE 1986.

WITNESS my hand and the seal of the State Water Rights Board of
the State of California this 29th day of June, 1959

L. K. Hill

L. K. Hill
Executive Officer



4

18



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

License for Diversion and Use of Water

LICENSE 1986

PERMIT 273

APPLICATION 23

THIS IS TO CERTIFY, That Miller & Lux, Inc., of San Francisco, California

10/30/39 ASSIGNMENT MADE to U. S. BUREAU OF RECLAMATION

OVER

has made proof to the satisfaction of the Division of Water Resources of California of a right to the use of the waters of San Joaquin River in Madera County

tributary of Suisun Bay

for the purpose of irrigation, stock watering and domestic uses under Permit 273 of the Division of Water Resources and that said right to the use of said waters has been perfected in accordance with the laws of California, the rules and regulations of the Division of Water Resources and the terms of the said permit; that the priority of the right herein confirmed dates from March 27, 1915;

that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to the amount actually beneficially used for said purposes and shall not exceed three hundred seventy-three (373) cubic feet per second from about April 1st to about July 1st of each season, provided, however, that no rights may be claimed under this license to appropriate more than forty-four thousand three hundred forty (44340) acre feet in any one year and provided further that no right may be claimed under this license either singly or with any other right to appropriate more than two and five tenths (2.5) acre feet per acre per annum for the irrigation of uncultivated areas of land not devoted to cultivated crops. In case of rotation the equivalent of such continuous flow allowance for any thirty day period may be diverted at a greater rate in a shorter time if there be no interference with other vested rights.

The point of diversion of such water is located South six thousand three hundred eighty-eight and seventy-eight hundredths (6388.78) feet and west nine thousand two hundred forty-seven and eighty-three hundredths (9247.83) feet from the northeast corner of Section 14, T 13 S, R 16 E, M.D.B.&M. and being within the NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Section 22, T 13 S, R 16 E, M.D.B.&M.

A description of the lands or the place where such water is put to beneficial use is as follows:

22,170 acres within Townships 11, 12 and 13 South, Ranges 15 and 16 East, M.D.B.&M. as shown on the map filed April 14, 1928, with the Division of Water Resources.

5 Reports shall be filed promptly by licensee on appropriate forms which will be provided for the purpose from time to time by the Division of Water Resources.

The right to the diversion and use of the water aforesaid hereby confirmed is restricted to the point of diversion herein specified and to the lands or place of use herein described.

This license is granted and said appropriator takes all rights herein mentioned subject to the terms and conditions set forth in Section 20 of Chapter 586, Statutes of 1913, as amended, which is as follows:

Sec. 20. All permits and licenses for the appropriation of water shall be under the terms and conditions of this act, and shall be effective for such time as the water actually appropriated under such permits and licenses shall actually be used for the useful and beneficial purpose for which said water was appropriated, but no longer; and every such permit or license shall include the enumeration of conditions therein which in substance shall include all of the provisions of this section and likewise the statement that any appropriator of water, to whom said permit or license may be issued, shall take the same subject to such conditions as therein expressed; provided, that at any time after the expiration of twenty years after the granting of a license, the state or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the state shall have the right to purchase the works and property occupied and used under said license and the works built or constructed for the enjoyment of the rights granted under said license; and in the event that the said state, city, city and county, municipal water district, irrigation district, lighting district or political subdivision of the state so desiring to purchase and the said owner of said works and property can not agree upon said purchase price, said price shall be determined in such manner as is now or may hereafter be determined in eminent domain proceedings. If it shall appear to the state water commission at any time after a permit or license is issued as in this act provided that the permittee, or licensee, or the heirs, successors, or assigns, of said permittee or licensee, has not put the water granted under said permit or license to the useful or beneficial purpose for which the permit or license was granted, or that the permittee or licensee, or the heirs, successors, or assigns of said permittee or licensee, has ceased to put said water to such useful or beneficial purpose, or that the permittee or licensee, or the heirs, successors or assigns of said permittee or licensee, has failed to observe any of the terms and conditions in the permit or license as issued, then and in that case the said commission, after due notice to the permittee, licensee, or the heirs, successors or assigns of such permittee or licensee, and a hearing thereon, may revoke said permit or license and declare the water to be unappropriated and open to further appropriation in accordance with the terms of this act. The findings and declaration of said commission shall be deemed to be prima facie correct until modified or set aside by a court of competent jurisdiction; provided, that any action brought so to modify or set aside such finding or declaration must be commenced within thirty days after the service of notice of said revocation on said permittee or licensee, his heirs, successors or assigns. And every licensee or permittee under the provisions of this act if he accepts such permit or license shall accept the same under the conditions precedent that no value whatsoever in excess of the actual amount paid to the state therefor shall at any time be assigned to or claimed for any permit or license granted or issued under the provisions of this act, or for any rights granted or acquired under the provisions of this act, in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any permittee or licensee, his heirs, successors or assigns or by the holder of any rights granted or acquired under the provisions of this act, or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the state or any city, city and county, municipal water district, irrigation district, lighting district or any political subdivision of the state, of the rights and property of any permittee or licensee, or the possessor of any rights granted, issued, or acquired, under the provisions of this act. The application for a permit by municipalities for the use of water for said municipalities or the inhabitants thereof for domestic purposes shall be considered first in right, irrespective of whether they are first in time; provided, however, that such application for a permit or the granting thereafter of permission to any municipality to appropriate waters, shall not authorize the appropriation of any water for other than municipal purposes; and providing, further, that where permission to appropriate is granted by the state water commission to any municipality for any quantity of water in excess of the existing municipal needs therefor, that pending the application of the entire appropriation permitted, the state water commission shall have the power to issue permits for the temporary appropriation of the excess of such permitted appropriation over and above the quantity being applied from time to time by such municipality; and providing, further, that in lieu of the granting of such temporary permits for appropriation, the state water commission may authorize such municipality to become as to such surplus a public utility, subject to the jurisdiction and control of the railroad commission of the State of California for such period or periods from and after the date of the issuance of such permission to appropriate, as may be allowed for the application to municipal uses of the entire appropriation permitted; and provided, further, that when such municipality shall desire to use the additional water granted in its said application it may do so upon making just compensation for the facilities for taking, conveying and storing such additional water rendered valueless for said purposes, to the person, firm or corporation which constructed said facilities for the temporary use of said excess waters, and which compensation, if not agreed upon between the municipality and said person, firm or corporation, may be determined in the manner provided by law for determining the value of property taken by and through eminent domain proceedings.

Witness my hand and the seal of the Department of Public Works of the State of California, this seventeenth day of October, 1939.

EDWARD HYATT
State Engineer

By Harold Conkling

2-1-80 Name chgd to U.S. Water + Power Res. Service



1936

LICENSE

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

DIVISION OF WATER RESOURCES

LICENSE
TO APPROPRIATE WATER

ISSUED TO
Miller & Lux, Inc.

DATED
October 17, 1939