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
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 rediversion, (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 redvertet 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 redvertet at and near Mendota Dam for delivery through various canals and to flow through Mendota Dam. Water would also be redvertet 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-redvertet 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 redverting water into various canals downstream of Friant Dam, Reclamation plans to redvert 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 Authority\(^1\) (SJTA); (2) the Exchange Contractors\(^2\) 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, SLDMW\(^3\)), 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, Pikalock 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. SLDMW\(^3\) Protest

On August 31, 2012, SLDMW\(^3\) 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.

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\(^1\) 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 SLDMW\(^3\) 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; Tranquility 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 reverter 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
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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

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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 Diverters 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 Illr-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, lir-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 EAIS 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 EAIS, 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 EAIS, 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 EAIS, 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 redvertied 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
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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).
### Continuous Annual Restoration Flow in Thousand Acre-feet (TAF)

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<tr>
<th>Forecasted Water Year</th>
<th>Annual Flow Allocation (TAF)</th>
<th>Continuous-Line Annual Flow Allocation (TAF)</th>
<th>Restoration Year Type</th>
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<td>Greater than 400 to 670</td>
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<td>Critical-High</td>
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<td>Greater than 670 to 930</td>
<td>300.8</td>
<td>272.3 to 330.3</td>
<td>Dry</td>
</tr>
<tr>
<td>Greater than 930 to 1,450</td>
<td>364.6</td>
<td>Greater than 330.3 to 400.3</td>
<td>Normal-Dry</td>
</tr>
<tr>
<td>Greater than 1,450 to 2,500</td>
<td>473.0</td>
<td>Greater than 400.3 to 574.4</td>
<td>Normal-Wet</td>
</tr>
<tr>
<td>Greater than 2,500</td>
<td>672.3</td>
<td>673.5</td>
<td>Wet</td>
</tr>
</tbody>
</table>

1 Friant 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

Forecasted Water Year Inflow (October - September) below Friant Dam (TAF)
Color Bands Delineate the Six Restoration Year Types
### Table 2-4 from Draft PEIS/R
Estimated Maximum Water Available for Instream Flow Dedication Under Action Alternatives

<table>
<thead>
<tr>
<th>Begin Date</th>
<th>End Date</th>
<th>Friant Dam Releases According to Settlement (cfs)</th>
<th>Reach 1 Holding Contract Diversions Estimated as in Exhibit B1 (cfs)</th>
<th>Friant Dam Releases Eligible for Recapture (TAF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/1</td>
<td>10/31</td>
<td>350</td>
<td>160</td>
<td>190</td>
</tr>
<tr>
<td>11/1</td>
<td>11/10</td>
<td>700</td>
<td>130</td>
<td>570</td>
</tr>
<tr>
<td>11/11</td>
<td>12/31</td>
<td>350</td>
<td>120</td>
<td>230</td>
</tr>
<tr>
<td>1/1</td>
<td>2/28</td>
<td>350</td>
<td>100</td>
<td>250</td>
</tr>
<tr>
<td>3/1</td>
<td>3/15</td>
<td>500</td>
<td>130</td>
<td>370</td>
</tr>
<tr>
<td>3/16</td>
<td>3/31</td>
<td>1,500</td>
<td>130</td>
<td>1,370</td>
</tr>
<tr>
<td>4/1</td>
<td>4/15</td>
<td>2,500</td>
<td>150</td>
<td>2,350</td>
</tr>
<tr>
<td>4/16</td>
<td>4/30</td>
<td>4,000</td>
<td>150</td>
<td>3,850</td>
</tr>
<tr>
<td>5/1</td>
<td>6/30</td>
<td>2,000</td>
<td>190</td>
<td>1,810</td>
</tr>
<tr>
<td>7/1</td>
<td>8/31</td>
<td>350</td>
<td>230</td>
<td>120</td>
</tr>
<tr>
<td>9/1</td>
<td>9/30</td>
<td>350</td>
<td>210</td>
<td>140</td>
</tr>
<tr>
<td><strong>Total flows released (TAF)</strong></td>
<td><strong>673</strong></td>
<td><strong>Total available for instream flow dedication (TAF)</strong></td>
<td><strong>556</strong></td>
<td><strong>Potential buffer flows (TAF)</strong></td>
</tr>
<tr>
<td><strong>Potential buffer flows (TAF)</strong></td>
<td><strong>67</strong></td>
<td><strong>Potential additional releases pursuant to Paragraph 13(c)</strong></td>
<td><strong>100</strong></td>
<td><strong>Potential additional releases pursuant to Paragraph 13(c), minus seepage</strong></td>
</tr>
<tr>
<td><strong>Maximum total volume released (TAF)</strong></td>
<td><strong>840</strong></td>
<td><strong>Maximum total volume available for instream flow dedication (TAF)</strong></td>
<td><strong>623</strong></td>
<td></td>
</tr>
</tbody>
</table>

**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, Ir1-1144, 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 Ir1-1145, 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 Ir1-1145.

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.

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, Ir-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 2009

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.
<table>
<thead>
<tr>
<th>COMPLIANCE LOCATION</th>
<th>INTERAGENCY STATION NUMBER (RKJ [1])</th>
<th>PARAMETER</th>
<th>DESCRIPTION (UNIT)</th>
<th>WATER YEAR TYPE [2]</th>
<th>TIME PERIOD</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contra Costa Canal at Pumping Plant #1</td>
<td>C-5 (CHCCC06)</td>
<td>Chlorides (Cl⁻)</td>
<td>Maximum mean daily 150 mg/l</td>
<td>W</td>
<td>No. of days each Calendar Year ≤ 150 mg/l</td>
<td>240 (60%)</td>
</tr>
<tr>
<td>San Joaquin River at Antioch Water Works Intake</td>
<td>D-17 (near)</td>
<td>Chlorides (Cl⁻)</td>
<td>Maximum mean daily 150 mg/l for at least the number of days shown during the Calendar Year</td>
<td>AN</td>
<td>µ</td>
<td>190 (50%)</td>
</tr>
<tr>
<td>Contra Costa Canal at Pumping Plant #1</td>
<td>C-5 (CHCCC06)</td>
<td>Chlorides (Cl⁻)</td>
<td>Maximum mean daily 150 mg/l</td>
<td>D</td>
<td>µ</td>
<td>175 (45%)</td>
</tr>
<tr>
<td>Contra Costa Canal at Pumping Plant #1</td>
<td>C-5 (CHCCC06)</td>
<td>Chlorides (Cl⁻)</td>
<td>Maximum mean daily 150 mg/l</td>
<td>C</td>
<td>µ</td>
<td>155 (42%)</td>
</tr>
<tr>
<td>West Canal at mouth of Colton Court Forebay</td>
<td>C-9 (CHWST0)</td>
<td>-</td>
<td>-</td>
<td>All</td>
<td>Oct-Sept</td>
<td>250</td>
</tr>
<tr>
<td>Delta-Mendota Canal at Tracy Pumping Plant</td>
<td>DMC-1 (CHDMC004)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Barker Slough at North Bay Aqueduct Intake</td>
<td>(SLBAAR)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cache Slough at City of Vallejo Intake [3]</td>
<td>C-19 (SLCH19)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(1) River Kilometer index station number.
(2) The Sacramento Valley 40, 50, 30 water year hydrologic classification index (see Figure 1) applies for determinations of water year type.
(3) The Cache Slough objective is to be effective only when water is being diverted from this location.
<table>
<thead>
<tr>
<th>COMPLIANCE LOCATION</th>
<th>STATION NUMBER</th>
<th>INTERAGENCY AREA - LOCATION</th>
<th>DESCRIPTION (UNIT)</th>
<th>WATER YEAR TYPE</th>
<th>TIME PERIOD</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WESTERN DELTA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sacramento River at Emigration</td>
<td>D-22 (RSAC092)</td>
<td>Electrical Conductivity (EC)</td>
<td>Maximum 14-day running average of mean daily EC (millimol)</td>
<td>April 1 to shown to Aug 15</td>
<td>0.45 EC EC from date Aug 15 [4]</td>
<td></td>
</tr>
<tr>
<td>San Joaquin River at Jersey Port</td>
<td>D-13 (ROSA013)</td>
<td>Electrical Conductivity (EC)</td>
<td>Maximum 14-day running average of mean daily EC (millimol)</td>
<td>April 1 to Aug 15 shown to Aug 15 [4]</td>
<td>0.45 EC EC from date Aug 15</td>
<td></td>
</tr>
<tr>
<td>INTERIOR DELTA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Fork Mokelumne River at Terminous</td>
<td>C-13 (RONA108)</td>
<td>Electrical Conductivity (EC)</td>
<td>Maximum 14-day running average of mean daily EC (millimol)</td>
<td>April 1 to shown to Aug 15</td>
<td>0.45 EC EC from date Aug 15 [4]</td>
<td></td>
</tr>
<tr>
<td>San Joaquin River at San Andreas Landing</td>
<td>C-4 (RSAC032)</td>
<td>Electrical Conductivity (EC)</td>
<td>Maximum 14-day running average of mean daily EC (millimol)</td>
<td>April 1 to Aug 15 shown to Aug 15 [4]</td>
<td>0.45 EC EC from date Aug 15</td>
<td></td>
</tr>
<tr>
<td>SOUTHERN DELTA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Joaquin River at Airport Way Bridge, Yerba Buena Island</td>
<td>C-19 (RSAC112)</td>
<td>Electrical Conductivity (EC)</td>
<td>Maximum 14-day running average of mean daily EC (millimol)</td>
<td>April 1 to Aug 15 shown to Aug 15</td>
<td>0.45 EC EC from date Aug 15 [4]</td>
<td></td>
</tr>
<tr>
<td>South Fork Mokelumne River</td>
<td>C-6 (ROSA003)</td>
<td>Electrical Conductivity (EC)</td>
<td>Maximum 14-day running average of mean daily EC (millimol)</td>
<td>April 1 to Aug 15 shown to Aug 15</td>
<td>0.45 EC EC from date Aug 15 [4]</td>
<td></td>
</tr>
<tr>
<td>Old River near Medora</td>
<td>C-8 (ROLD59)</td>
<td>Electrical Conductivity (EC)</td>
<td>Maximum 14-day running average of mean daily EC (millimol)</td>
<td>April 1 to Aug 15 shown to Aug 15</td>
<td>0.45 EC EC from date Aug 15 [4]</td>
<td></td>
</tr>
<tr>
<td>Old River at Tracy Road Bridge</td>
<td>P-12 (ROLD59)</td>
<td>Electrical Conductivity (EC)</td>
<td>Maximum 14-day running average of mean daily EC (millimol)</td>
<td>April 1 to Aug 15 shown to Aug 15</td>
<td>0.45 EC EC from date Aug 15 [4]</td>
<td></td>
</tr>
<tr>
<td>EXPORT AREA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Canal at mouth of Other Courts Forebay and Delta-Mendota Canal at Tracy Pumping Plant</td>
<td>C-3 (CHWST7)</td>
<td>Electrical Conductivity (EC)</td>
<td>Maximum 14-day running average of mean daily EC (millimol)</td>
<td>April 1 to Oct-Sep</td>
<td>0.45 EC EC from date Aug 15 [4]</td>
<td></td>
</tr>
</tbody>
</table>

[1] River Kilometer Index station number.
[2] Determination of compliance with an objective expressed as running average begins on the last day of the averaging period. The averaging period common in the first day of the time period for the applicable objective. If the objective is met on the last day of the averaging period, all days in the averaging period are considered to be compliant.
[3] The Sacramento Valley 4th-30-38 water year hydrologic classification index (Figure 1) applies for determinations of water year.
[4] When no date is shown, EC limits continue from April 1.
[5] The 0.6 EC objective becomes effective on April 1, 2003. The DWR and the USBR shall meet 0.6 EC at these stations year-round until April 1, 2005. The 0.6 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 appropriate 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>
<thead>
<tr>
<th>COMPLIANCE LOCATION</th>
<th>INTERAGENCY STATION NUMBER (RKI)</th>
<th>PARAMETER</th>
<th>DESCRIPTION (UNIT)</th>
<th>WATER YEAR TYPE</th>
<th>TIME PERIOD</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAN JOAQUIN RIVER SALINITY</td>
<td></td>
<td>D-15 (RSAN018)</td>
<td>Electrical Conductivity (EC)</td>
<td>Maximum 14-day running average of mean daily EC (mmhos/cm)</td>
<td>Apr-May</td>
<td>0.44</td>
</tr>
<tr>
<td>San Joaquin River at and between Jersey Point and Prisoners Point</td>
<td>D-29 (RSAN038)</td>
<td></td>
<td></td>
<td>W.AN.BN.D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EASTERN SUISUN MARSH SALINITY</td>
<td></td>
<td>C-2 (RSAC081)</td>
<td>Electrical Conductivity (EC)</td>
<td>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</td>
<td>All</td>
<td>Oct 19.0</td>
</tr>
<tr>
<td>Sacramento River at Collinsville</td>
<td></td>
<td>S-64 (SLMZU25)</td>
<td></td>
<td></td>
<td>Nov-Dec</td>
<td>15.5</td>
</tr>
<tr>
<td>Montezuma Slough at National St.</td>
<td></td>
<td>S-49 (SLMZU11)</td>
<td></td>
<td></td>
<td>Jan</td>
<td>12.5</td>
</tr>
<tr>
<td>Montezuma Slough near Beldon Landing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Feb-Mar</td>
<td>8.0</td>
</tr>
<tr>
<td>WESTERN SUISUN MARSH SALINITY</td>
<td></td>
<td>S-21 (SLCBN1)</td>
<td>Electrical Conductivity (EC)</td>
<td>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</td>
<td>All but</td>
<td>Oct 19.0</td>
</tr>
<tr>
<td>Chadbourne Slough at Sunrise Duck Club</td>
<td></td>
<td>S-42 (SLSUS12)</td>
<td></td>
<td></td>
<td>Nov-Dec</td>
<td>16.5</td>
</tr>
<tr>
<td>Suisun Slough, 300 feet south of Volant Slough</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dec</td>
<td>15.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Jan</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Feb-Mar</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Apr-May</td>
<td>11.0</td>
</tr>
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</table>
## Table 3 (continued)

### Water Quality Objectives for Fish and Wildlife Beneficial Uses

<table>
<thead>
<tr>
<th>Compliance Location</th>
<th>Interagency Station Number (RK)[11]</th>
<th>Parameter</th>
<th>Description (Unit)[2]</th>
<th>Water Year Type [3]</th>
<th>Time Period</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M Feb-Jun 740</td>
<td>W,AN Jul 8,000</td>
<td>BN 6,600</td>
<td>D 5,000</td>
<td>C 4,000</td>
<td>W,AN,BN Aug 4,000</td>
</tr>
<tr>
<td></td>
<td>W,AN,BN,D Oct 4,000</td>
<td>C 3,000</td>
<td>W,AN,BN,D Nov-Dec 4,500</td>
<td>C 3,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>San Joaquin River at Airport Way C-10 (RSAN112)</td>
<td>Flow rate Minimum monthly average [12] flow rate (cfs) [13]</td>
<td>W,AN Feb-Apr 14 2,130 or 3,420</td>
<td>and 1,420 or 2,180</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BN,D May 15-Jun 710 or 1,140</td>
<td>C 3,000</td>
<td>W Apr 15-7,330 or 8,620</td>
<td>5,730 or 7,020</td>
<td>BN 4,620 or 5,480</td>
<td>D 4,020 or 4,880</td>
</tr>
<tr>
<td><strong>Export Limits</strong></td>
<td>Combined export rate [15]</td>
<td>Maximum 3-day running average (cfs)</td>
<td>All Apr 15-May 15 [17] 190</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Delta Cross Channel Gates Closure</strong></td>
<td>Delta Cross Channel at Walnut Grove</td>
<td>Closure of gates</td>
<td>Closed gates All Nov-Jan</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 isoline (measured as 2.54 mmhos/cm surface salinity) is required to be at or west of Chipps 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.
The percent Delta inflow diverted values can be varied either up or down. Variations are authorized subject to the process described in footnote 18.

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.

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.

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

\[
\text{INDEX} = 0.4 \times X + 0.3 \times Y + 0.3 \times Z
\]

Where:

\[X = \text{Current year's April - July Sacramento Valley unimpaired runoff}\]
\[Y = \text{Current October - March Sacramento Valley unimpaired runoff}\]
\[Z = \text{Previous year's index}^1\]

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.

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

\(^1\) 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.
Year classification shall be determined by computation of the following equation:

\[
\text{INDEX} = 0.6 \times X + 0.2 \times Y + 0.2 \times Z
\]

Where:

\[X = \text{Current year's April - July San Joaquin Valley unimpaired runoff}\]

\[Y = \text{Current October - March San Joaquin Valley unimpaired runoff}\]

\[Z = \text{Previous year's index}\]

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.

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

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.
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):

\[
NDOI = \text{DELTAINFLOW} - \text{NET DELTA CONSUMPTIVE USE} - \text{DELTAINEXPORTS}
\]

\[
\text{PERCENT INFLOW DIVERTED} = \frac{(\text{CCF} + \text{TPP}) + \text{DELTA INFLOW}}{\text{DELTA INFLOW}}
\]

where \(\text{DELTA INFLOW} = \text{SAC} + \text{SRTP} + \text{YOLO} + \text{EAST} + \text{MISC} + \text{SJR}\)

\[
\text{SAC} = \text{Sacramento River at Freeport mean daily flow for the previous day; the 25-hour tidal cycle measurements from 12:00 midnight to 1:00 a.m. may be used instead.}
\]

\[
\text{SRTP} = \text{Sacramento Regional Treatment Plant average daily discharge for the previous week.}
\]

\[
\text{YOLO} = \text{Yolo Bypass mean daily flow for the previous day, which is equal to the flows from the Sacramento Weir, Fremont Weir, Cache Creek at Rumsey, and the South Fork of Putah Creek.}
\]

\[
\text{EAST} = \text{Eastside Streams mean daily flow for the previous day from the Mokelumne River at Woodbridge, Cosumnes River at Michigan Bar, and Calaveras River at Bellota.}
\]

\[
\text{MISC} = \text{Combined mean daily flow for the previous day of Bear Creek, Dry Creek, Stockton Diverting Canal, French Camp Slough, Marsh Creek, and Morrison Creek.}
\]

\[
\text{SJR} = \text{San Joaquin River flow at Vernalis, mean daily flow for the previous day.}
\]

where \(\text{NET DELTA CONSUMPTIVE USE} = \text{GDEPL} - \text{PREC}\)

\[
\text{GDEPL} = \text{Delta gross channel depletion for the previous day based on water year type using the DWR's latest Delta land use study.}^2
\]

\[
\text{PREC} = \text{Real-time Delta precipitation runoff for the previous day estimated from stations within the Delta.}
\]

and where \(\text{DELTAINEXPORTS} = \text{CCF} + \text{TPP} + \text{CCC} + \text{NBA}\)

\[
\text{CCF} = \text{Clifton Court Forebay inflow for the current day.}^4
\]

\[
\text{TPP} = \text{Tracy Pumping Plant pumping for the current day.}
\]

\[
\text{CCC} = \text{Contra Costa Canal pumping for the current day.}
\]

\[
\text{NBA} = \text{North Bay Aqueduct pumping for the current day.}
\]

---

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>
<thead>
<tr>
<th>PMI[^b] (TAF)</th>
<th>Chips Island (Chips Island Station D10)</th>
<th>Port Chicago (Port Chicago Station C14)[^d]</th>
<th>Port Chicago (Port Chicago Station C14)[^d]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FEB</td>
<td>MAR</td>
<td>APR</td>
</tr>
<tr>
<td>≤ 500</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>750</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1000</td>
<td>28[^c]</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>1250</td>
<td>28</td>
<td>31</td>
<td>6</td>
</tr>
<tr>
<td>1500</td>
<td>28</td>
<td>31</td>
<td>13</td>
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</tr>
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</tr>
<tr>
<td>3000</td>
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<td>≤ 5500</td>
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[^b]: PMI is the best available estimate of the previous month's Eight River Index. (Refer to Footnote 10 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.

[^e]: 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 NDOI 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.

[^f]: PMI is the best available estimate of the previous month's Eight River Index. (Refer to Footnote 10 for a description of the Eight River Index.)

[^g]: 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.
Table 5. Water Quality Compliance and Baseline Monitoring

<table>
<thead>
<tr>
<th>Station Number</th>
<th>Station Description</th>
<th>Cont. Rec.</th>
<th>Physical/ Chemical</th>
<th>Multi-parameter</th>
<th>Phytoplankton</th>
<th>Zooplankton</th>
<th>Ben-thos</th>
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<tbody>
<tr>
<td>C2</td>
<td>Sacramento River @ Collinsville</td>
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<td>C3</td>
<td>Sacramento River @ Greens Landing</td>
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<td>San Joaquin River @ San Andreas Ldg.</td>
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<td>Contra Costa Canal @ Pumping Plant #1</td>
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<td>C6</td>
<td>San Joaquin River @ Brandt Bridge site</td>
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<tr>
<td>C7</td>
<td>San Joaquin River @ Mossdale Bridge</td>
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</tr>
<tr>
<td>C8</td>
<td>Old River near Middle River</td>
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<tr>
<td>C9</td>
<td>West Canal at mouth of CCForebay Intake</td>
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<td>San Joaquin River near Vernalis</td>
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<td>C19</td>
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<td>D1</td>
<td>Sacramento River above Point Sacramento</td>
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<tr>
<td>D2</td>
<td>Suisun Bay @ Bulls Head Pt. nr. Martinez</td>
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<tr>
<td>D5</td>
<td>Sacramento River @ Chipp's Island</td>
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<tr>
<td>D6</td>
<td>San Joaquin River @ Antioch Ship Canal</td>
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<td>D7</td>
<td>San Joaquin River @ Jersey Point</td>
<td>*</td>
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<td>D8</td>
<td>San Joaquin River @ Twitchell Island</td>
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<td>D9</td>
<td>Sacramento River @ Emmonat</td>
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<td>D10</td>
<td>Sacramento River below Rio Vista Bridge</td>
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<td>D11</td>
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<td>D12</td>
<td>Old River near Rancho Del Rio</td>
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<tr>
<td>D13</td>
<td>San Joaquin River @ Prisoners Point</td>
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<tr>
<td>D14</td>
<td>San Pablo Bay near Pinole Point</td>
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<td>D15</td>
<td>San Pablo Bay nr. mouth of Petaluma R.</td>
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<td>D16</td>
<td>Delta-Mendota Canal at Tracy Pump. Plt.</td>
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<td>D17</td>
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<td>D18</td>
<td>Old River @ Tracy Road Bridge</td>
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<tr>
<td>D19</td>
<td>Disappointment Slough near Bishop Cut</td>
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<td>D20</td>
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<td>D21</td>
<td>Goodyear Sl. @ Morrow Is. Clubhouse</td>
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<td>D22</td>
<td>Suisun Slough 300' so. of Volanti Slough</td>
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<td>Montezuma Slough near Beldon Landing</td>
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<tr>
<td>D24</td>
<td>Montezuma Slough @ National Steel</td>
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<td>Cordelia Slough @ Ibis Club</td>
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<tr>
<td>D26</td>
<td>Montezuma Slough, 2nd bend from mouth</td>
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* Compliance monitoring station  A Baseline monitoring station  * Compliance and baseline monitoring station
Table 5. Water Quality Compliance and Baseline Monitoring (continued)

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<th>Station Number</th>
<th>Station Description</th>
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<th>Physical/Chemical$^1$</th>
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<tr>
<td>A</td>
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<td>A</td>
<td>Barker Sl. at No. Bay Aqueduct (SLBARJ)</td>
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<td>A</td>
<td>Water supply intakes for waterfowl management areas on Van Sickle Island and Chipps Island</td>
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$^1$ Compliance monitoring station  
$^2$ Baseline monitoring station  
$^3$ 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, sechne, 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.
Figure 4
STATE WATER RESOURCES CONTROL BOARD
BAY-DELTA ESTUARY
MONITORING STATIONS
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.

Gary Bardini
Deputy Director
Department of Water Resources

Date: 9/28/12
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
CERTIFICATION, FINDINGS OF FACT, AND STATEMENT OF OVERRIDING CONSIDERATIONS FOR THE SAN JOAQUIN RIVER RESTORATION PROGRAM PROGRAM EIS/EIR

Prepared by:
California Department of Water Resources

September 17, 2012
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San Joaquin River Restoration Program

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<td>Act</td>
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<td>ANSI</td>
<td>American National Standards Institute</td>
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<tr>
<td>APCO</td>
<td>air pollution control officer</td>
</tr>
<tr>
<td>BMP</td>
<td>best management practice</td>
</tr>
<tr>
<td>BO</td>
<td>biological opinion</td>
</tr>
<tr>
<td>CD</td>
<td>compact disc</td>
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<tr>
<td>cfs</td>
<td>cubic feet per second</td>
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<td>Central Valley Project</td>
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<td>diethyl(meta)toulamide</td>
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<td>oxides of nitrogen</td>
</tr>
<tr>
<td>NRDC</td>
<td>Natural Resources Defense Council</td>
</tr>
<tr>
<td>NRHP</td>
<td>National Register of Historic Places</td>
</tr>
<tr>
<td>OPR</td>
<td>Office of Planning and Research</td>
</tr>
<tr>
<td>PA</td>
<td>Programmatic Agreement</td>
</tr>
<tr>
<td>PARCS</td>
<td>Parks, After School, Recreation, and Community Services</td>
</tr>
<tr>
<td>PEIS/R</td>
<td>program environmental impact statement/report</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less</td>
</tr>
<tr>
<td>PRC</td>
<td>California Public Resources Code</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Reclamation</td>
<td>U.S. Bureau of Reclamation</td>
</tr>
<tr>
<td>ROG</td>
<td>reactive organic gases</td>
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<tr>
<td>RPA</td>
<td>reasonable and prudent alternative</td>
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<td>RWQCB</td>
<td>Regional Water Quality Control Board</td>
</tr>
<tr>
<td>Secretary</td>
<td>Secretary of the Interior</td>
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<td>Settlement</td>
<td>Stipulation of Settlement, NRDC, et al., v. Rodgers, et al.</td>
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<td>SHPO</td>
<td>State Historic Preservation Officer</td>
</tr>
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<td>SJRC</td>
<td>San Joaquin River Conservancy</td>
</tr>
<tr>
<td>SJRRP</td>
<td>San Joaquin River Restoration Program</td>
</tr>
<tr>
<td>SJVAPCD</td>
<td>San Joaquin Valley Air Pollution Control District</td>
</tr>
<tr>
<td>SMARA</td>
<td>California Surface Mining and Reclamation Act</td>
</tr>
<tr>
<td>State</td>
<td>State of California</td>
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<td>STC</td>
<td>Sound Transmission Class</td>
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<td>SWP</td>
<td>State Water Project</td>
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<td>SWPPP</td>
<td>storm water pollution prevention plan</td>
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<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
</tr>
<tr>
<td>USJRBSI</td>
<td>Upper San Joaquin River Basin Storage Investigation</td>
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<tr>
<td>VDE</td>
<td>visible dust emissions</td>
</tr>
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</table>
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.
DWR certifies the PEIS/R for the entirety of the actions as composing the SJRRP described in these findings and in the PEIS/R.

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

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

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

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

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

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

Gary Bardini
Deputy Director
Department of Water Resources

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

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

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

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

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

- Alternative A1: Reach 4B1 at 475 cfs, Delta Recapture
- Alternative A2: Reach 4B1 at 4,500 cfs, Delta Recapture
- Alternative B1: Reach 4B1 at 475 cfs, San Joaquin River Recapture
- Alternative B2: Reach 4B1 at 4,500 cfs, San Joaquin River Recapture
- Alternative C1: Reach 4B1 at 475 cfs, New Pumping Plant Recapture
- Alternative C2: Reach 4B1 at 4,500 cfs, New Pumping Plant Recapture
Each action alternative includes the actions required in the Settlement, as shown in Table 2-1 herein (and Table 2-1 in Chapter 2, “Description of Alternatives,” page 2-5, of the Draft PEIS/R).

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

Channel conveyance limitations in river reaches other than Reach 4B1 would need to be addressed and implemented before flows of 475 cfs or 4,500 cfs could be released under any of the action alternatives. The Settlement specifies that full Restoration Flows will be limited to flow levels that can be accommodated by then-existing channel capacities.

Substantial information has been collected since the signing of the Settlement as part of development of the Draft PEIS/R, implementing the Interim Flows, and as part of California FloodSAFE initiative and other programs. This new information indicates that current channel capacities in the Restoration Area may not be sufficient to convey full Restoration Flows.

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

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

<table>
<thead>
<tr>
<th>Level of NEPA/CEQA Compliance</th>
<th>Action Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actions¹</td>
</tr>
<tr>
<td></td>
<td>A1</td>
</tr>
<tr>
<td>Project-Level</td>
<td></td>
</tr>
<tr>
<td>Reoperate Friant Dam and downstream flow control structures to route Interim and Restoration flows</td>
<td>✓</td>
</tr>
<tr>
<td>Recapture Interim and Restoration flows in the Restoration Area</td>
<td>✓</td>
</tr>
<tr>
<td>Recapture Interim and Restoration flows at existing CVP and SWP facilities in the Delta</td>
<td>✓</td>
</tr>
<tr>
<td>Program-Level</td>
<td></td>
</tr>
<tr>
<td>Common Restoration actions²</td>
<td>✓</td>
</tr>
<tr>
<td>Actions in Reach 4B1 to provide at least:</td>
<td></td>
</tr>
<tr>
<td>475 cfs capacity</td>
<td>✓</td>
</tr>
<tr>
<td>4,500 cfs capacity with integrated floodplain habitat</td>
<td>✓</td>
</tr>
<tr>
<td>Recapture Interim and Restoration flows on the San Joaquin River downstream from the Merced River at:</td>
<td></td>
</tr>
<tr>
<td>Existing facilities on the San Joaquin River</td>
<td>✓</td>
</tr>
<tr>
<td>New pumping infrastructure on the San Joaquin River</td>
<td>✓</td>
</tr>
<tr>
<td>Recirculation of recaptured Interim and Restoration flows</td>
<td>✓</td>
</tr>
</tbody>
</table>

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

All action alternatives also include the Physical Monitoring and Management Plan and the Conservation Strategy, both of which are discussed in detail in Chapter 2.0, “Descriptions of Alternatives,” of the Draft PEIS/R. The Physical Monitoring and Management Plan provides guidelines for observing and adjusting to changes in conditions regarding flow, seepage, channel capacity, propagation of native vegetation, and suitability of spawning gravel. The Conservation Strategy consists of conservation measures necessary to provide a net increase in the extent and quality of riparian and wetland habitats in the Restoration Area, to avoid reducing the long-term viability of sensitive species, and to be consistent with adopted conservation plans. For individual project- and program-level actions under each of the action alternatives, the applicable, feasible measures would guide development of action-specific conservation strategies (see Table 2-7 in Chapter 2.0, “Description of Alternatives,” pages 2-55 through 2-79, of the Draft PEIS/R).
No-Action (No-Project) Alternative

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

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

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

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

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

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

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

Findings of Fact and Statement of Overriding Considerations

2-6 –September 2012
in Alternatives B2 and C2, as shown in Figure 2-8 in Chapter 2.0, “Descriptions of Alternatives,” page 2-35, of the Draft PEIS/R, and therefore are not discussed further in the presentation of those alternatives.

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

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

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

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

Water supply recaptured through exchange with San Joaquin River water right holders available to Friant Division long-term contractors would range from zero to the total amount of recaptured Interim and Restoration flows. Recapture would be limited by conveyance capacity and conditions identified by exchanging entities, such as water quality requirements for land application or other potential concerns.
This alternative also would require exchange and/or conveyance agreements for recirculating recaptured Interim and Restoration flows at Delta export pumping facilities, as described under Alternative A1.

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

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

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

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

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

The new pumping infrastructure could have a capacity up to 1,000 cfs and would be located on the San Joaquin River downstream from the Merced River confluence and upstream from Vernalis. This river reach includes a range of anticipated flows and water quality conditions that would affect design and operation of the facility; therefore, the location and capacity of the pumping infrastructure would be determined as part of a subsequent, site-specific study. New pumping infrastructure also would include infrastructure to convey recaptured flows to the DMC or California Aqueduct. Recapture
of Interim or Restoration flows at new infrastructure of existing facilities would occur only if doing so would not adversely affect downstream water quality of fisheries, consistent with the requirements of Paragraph 16(a)(1) of the Settlement. To the extent they were available, existing south-of-Delta CVP and SWP storage and conveyance facilities would be used to recirculate recaptured water to the Friant Division, as described for Alternative B1.

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

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

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

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

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

The public comment period for the Draft PEIS/R began April 22, 2011, and ended September 21, 2011. On April 22, 2011, a Notice of Completion and the requisite number of copies of the Draft PEIS/R were provided to the State Clearinghouse for distribution to interested state agencies. A Notice of Availability (NOA), including information on where the Draft PEIS/R could be reviewed, also was filed in Contra Costa, Fresno, Kern, Madera, Merced, Sacramento, San Joaquin, Stanislaus, Tulare, and Yolo counties, California; and was published in 13 newspapers throughout the Central Valley on or near April 22, 2011. The Draft PEIS/R also was made available online at the SJRRP Web site (www.restoresjr.net); Reclamation’s Web site (http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=2940); at libraries in Contra Costa, Fresno, Kern, Madera, Merced, Sacramento, San Joaquin, Stanislaus, Tulare, and Yolo counties; and at DWR’s Fresno office. More than 500 copies on compact disc (CD) and approximately 55 hard copies of the Draft PEIS/R were distributed to those public agencies that have jurisdiction by law with respect to the project or which exercise authority over resources that may be affected by the project, and to other interested parties and agencies as required by law.
Originally, a 45-day public comment period for the Draft PEIS/R was conducted between April 22, 2011 and June 21, 2011. The public comment period was extended at the request of stakeholders for an additional 3 months beyond the initial comment due date of June 21, 2011, closing on September 21, 2011.

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

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

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

2.2.4 Absence of Significant New Information

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

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

Based on the foregoing, and having reviewed the information contained in the PEIS/R and the record of proceedings, including the comments on the Draft PEIS/R and the
responses thereto and the information summarized below, DWR hereby finds that no
significant new information has been added to the PEIS/R since public notice was given
of the availability of the Draft PEIS/R that would require recirculation under State CEQA
Guidelines Section 15088.5. The new information added to the PEIS/R, including the
subsections below, does not involve disclosure of any new or more severe significant
impacts, does not identify any new feasible alternatives or mitigation measures that
would clearly lessen significant impacts that DWR declines to adopt, and does not
indicate that the Draft PEIS/R was in any way inadequate or conclusory.

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

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

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

2.2.5 Administrative Record
Pursuant to State CEQA Guidelines Section 15091(e), the custodian and location of the
documents that make up the administrative record is California Department of Water
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
described below have been, or can and should be, adopted by that other agency, as applicable and appropriate. With respect to the additional mitigation proposals contained in comments that were not accepted by the PEIS/R, DWR hereby adopts and incorporates by reference the reasons set forth in the response to comments contained in the PEIS/R as its grounds for rejecting adoption of these mitigation measures.

2.3.1 Findings Related to Program- and Project-Level Impacts

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

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

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

<table>
<thead>
<tr>
<th>FSH-12</th>
<th>Changes in Diversions and Entrainment in the San Joaquin River between the Merced River and the Delta</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSH-13</td>
<td>Displacement from Preferred or Required Habitat, Injury, or Mortality in the San Joaquin River between Merced River and the Delta</td>
</tr>
<tr>
<td>FSH-14</td>
<td>Changes in Water Temperatures in the San Joaquin River between the Merced River and the Delta</td>
</tr>
</tbody>
</table>

**Biological Resources—Fisheries: Project-Level**

<table>
<thead>
<tr>
<th>FSH-15</th>
<th>Changes in Water Temperatures and Dissolved Oxygen Concentrations in the San Joaquin River Upstream from Friant Dam</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSH-17</td>
<td>Changes in Sediment Discharge and Turbidity in the San Joaquin River Upstream from Friant Dam</td>
</tr>
<tr>
<td>FSH-18</td>
<td>Changes in Fish Habitat Conditions in the San Joaquin River Upstream from Friant Dam</td>
</tr>
<tr>
<td>FSH-19</td>
<td>Changes in Diversions and Entrainment in the San Joaquin River Upstream from Friant Dam</td>
</tr>
<tr>
<td>FSH-20</td>
<td>Changes in Predation Levels in the San Joaquin River Upstream from Friant Dam</td>
</tr>
<tr>
<td>FSH-21</td>
<td>Changes in Food Web Support in the San Joaquin River Upstream from Friant Dam</td>
</tr>
<tr>
<td>FSH-22</td>
<td>Changes in Water Temperatures and Dissolved Oxygen Concentrations in the San Joaquin River between Friant Dam and the Merced River</td>
</tr>
<tr>
<td>FSH-23</td>
<td>Changes in Pollutant Discharge and Mobilization in the San Joaquin River between Friant Dam and the Merced River</td>
</tr>
<tr>
<td>FSH-24</td>
<td>Changes in Sediment Discharge and Turbidity in the San Joaquin River between Friant Dam and the Merced River</td>
</tr>
<tr>
<td>FSH-25</td>
<td>Changes in Fish Habitat Conditions in the San Joaquin River between Friant Dam and the Merced River</td>
</tr>
<tr>
<td>FSH-26</td>
<td>Changes in Diversions and Entrainment in the San Joaquin River between Friant Dam and the Merced River</td>
</tr>
<tr>
<td>FSH-27</td>
<td>Changes in Predation Levels in the San Joaquin River between Friant Dam and the Merced River</td>
</tr>
<tr>
<td>FSH-28</td>
<td>Changes in Food Web Support in the San Joaquin River between Friant Dam and the Merced River</td>
</tr>
<tr>
<td>FSH-29</td>
<td>Effects of Disease on Fisheries in the San Joaquin River between the Merced River and the Delta</td>
</tr>
<tr>
<td>FSH-30</td>
<td>Changes in Chinook Salmon and Steelhead Habitat in the Merced, Tuolumne, and Stanislaus Rivers</td>
</tr>
<tr>
<td>FSH-31</td>
<td>Changes in Water Temperatures and Dissolved Oxygen Concentrations in the Delta</td>
</tr>
<tr>
<td>FSH-32</td>
<td>Changes in Pollutant Discharge and Mobilization in the Delta</td>
</tr>
<tr>
<td>FSH-33</td>
<td>Changes in Sediment Discharge and Turbidity in the Delta</td>
</tr>
<tr>
<td>FSH-34</td>
<td>Changes in Fish Habitat Conditions in the Delta</td>
</tr>
<tr>
<td>FSH-35</td>
<td>Changes in Diversions and Entrainment in the Delta</td>
</tr>
<tr>
<td>FSH-36</td>
<td>Changes in Predation Levels in the Delta</td>
</tr>
<tr>
<td>FSH-37</td>
<td>Changes in Food Web Support in the Delta</td>
</tr>
<tr>
<td>FSH-38</td>
<td>Salinity Changes in the Delta</td>
</tr>
<tr>
<td>FSH-39</td>
<td>Changes to Delta Inflow and Flow Patterns in the Delta</td>
</tr>
</tbody>
</table>

**Biological Resources—Vegetation and Wildlife: Program-Level**

<table>
<thead>
<tr>
<th>VEG-1</th>
<th>Substantially Alter Riparian Habitat and Other Sensitive Communities in the Restoration Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEG-2</td>
<td>Fill, Fragment, Isolate, Divert, or Substantially Alter Jurisdictional Waters of the United States in the Restoration Area</td>
</tr>
<tr>
<td>VEG-3</td>
<td>Facilitate Increase in Distribution and Abundance of Invasive Plants in the Restoration Area</td>
</tr>
</tbody>
</table>
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.)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO-4</td>
<td>Potential Increase in Channel Erosion, Sediment Transport, and Meander Migration from San Joaquin River Flows</td>
</tr>
<tr>
<td>GEO-5</td>
<td>Potential Loss of Availability of a Known Mineral Resource of Value</td>
</tr>
<tr>
<td><strong>Hydrology—Flood Management: Program-Level</strong></td>
<td></td>
</tr>
<tr>
<td>FLD-2</td>
<td>Substantially Reduce Opportunities for Levee and Flood System Facilities Inspection and Maintenance</td>
</tr>
<tr>
<td>FLD-3</td>
<td>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</td>
</tr>
<tr>
<td>FLD-4</td>
<td>Placement of Structures Within a 100-Year Flood Hazard Area Structures that Would Impede or Redirect Flood Flows</td>
</tr>
<tr>
<td>FLD-5</td>
<td>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</td>
</tr>
<tr>
<td><strong>Hydrology—Flood Management: Project-Level</strong></td>
<td></td>
</tr>
<tr>
<td>FLD-6</td>
<td>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</td>
</tr>
<tr>
<td>FLD-7</td>
<td>Substantially Reduce Opportunities for Levee and Flood System Facilities Inspection and Maintenance</td>
</tr>
<tr>
<td>FLD-10</td>
<td>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</td>
</tr>
<tr>
<td><strong>Hydrology—Groundwater: Project-Level</strong></td>
<td></td>
</tr>
<tr>
<td>GRW-2</td>
<td>Changes in Groundwater Levels along the San Joaquin River from Friant Dam to the Delta</td>
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<tr>
<td>GRW-3</td>
<td>Changes in Groundwater Quality along the San Joaquin River from Friant Dam to the Delta</td>
</tr>
<tr>
<td><strong>Hydrology—Surface Water Supplies and Facilities Operations: Project-Level</strong></td>
<td></td>
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<tr>
<td>SWS-2</td>
<td>Change in Water Levels in the Old River near the Tracy Road Bridge</td>
</tr>
<tr>
<td>SWS-3</td>
<td>Change in Water Levels in the Grant Line Canal near the Grant Line Canal Barrier</td>
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<tr>
<td>SWS-4</td>
<td>Change in Water Levels in the Middle River near the Howard Road Bridge</td>
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<td>SWS-5</td>
<td>Change in Recurrence of Delta Excess Conditions</td>
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<tr>
<td><strong>Hydrology—Surface Water Quality: Program-Level</strong></td>
<td></td>
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<tr>
<td>SWQ-2</td>
<td>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</td>
</tr>
<tr>
<td>SWQ-3</td>
<td>Long-Term Effects on Water Quality that Cause Violations of Existing Water Quality Standards or Adversely Affect Beneficial Uses in Millerton Lake</td>
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<tr>
<td><strong>Hydrology—Surface Water Quality: Project-Level</strong></td>
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<tr>
<td>SWQ-4</td>
<td>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</td>
</tr>
<tr>
<td>SWQ-5</td>
<td>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</td>
</tr>
<tr>
<td>SWQ-7</td>
<td>Delta Salinity in San Joaquin River at Vermallis, San Joaquin River at Brandt Bridge, Old River near Middle River, and Old River at Tracy Road Bridge</td>
</tr>
<tr>
<td>SWQ-8</td>
<td>Delta Salinity in San Joaquin River at Jersey Point, Sacramento River at Emmaton, and Sacramento River at Collinsville</td>
</tr>
</tbody>
</table>
### Table 2-2.
Summary of Less-than-Significant Impacts in the SJRRP PEIS/R (contd.)

<table>
<thead>
<tr>
<th>Category</th>
<th>Program-Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Use</strong></td>
<td></td>
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<tr>
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<tr>
<td><strong>Land Use</strong></td>
<td>Project-Level</td>
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<tr>
<td>LUP-6: Diminishment of Agricultural Production by Increased Orchard and Vineyard Diseases</td>
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</tr>
<tr>
<td>LUP-7: Potential Conversion of Riparian Forest Because of Altered Inundation</td>
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<tr>
<td><strong>Noise</strong></td>
<td>Project-Level</td>
</tr>
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<td>NOI-6: Effects of the Reoperation of Friant Dam on the Noise Environment</td>
<td></td>
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<tr>
<td><strong>Power and Energy</strong></td>
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</tr>
<tr>
<td>PWR-1: Decrease in CVP and SWP Energy Generation</td>
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<td>PWR-5: Decrease in CVP and SWP Energy Generation</td>
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<td>REC-3: Effects of Construction, Operations, and Maintenance of New Projects or Facilities on Recreation Opportunities in the Restoration Area</td>
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<tr>
<td>REC-6: Effects on Wildlife-Based Recreation Opportunities from Enhanced Wildlife Habitat Conditions Caused by Program Actions within the Restoration Area</td>
<td></td>
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<tr>
<td>Table 2-2. Summary of Less-than-Significant Impacts in the SJRRP PEIS/R (contd.)</td>
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<td><strong>Recreation: Project-Level</strong></td>
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<td>REC-10: Effects on Recreation Facilities from Increased Flow in the Restoration Area</td>
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<td>REC-11: Effects on Swimming or Wading and Fishing Opportunities from Increased Flow in the Restoration Area</td>
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<tr>
<td>REC-13: Effects on Wildlife-Based Recreation Opportunities from Enhanced Wildlife Habitat Conditions Related to Increased Flow in the Restoration Area</td>
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<td>REC-15: Effects on Warm-Water Fishing Opportunities from Increased Flow in the San Joaquin River from the Merced River to the Delta</td>
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<td><strong>Socioeconomics: Project-Level</strong></td>
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<td>SOC-4: Change in Regional Employment Levels</td>
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<td>SOC-7: Physical Decay in Communities</td>
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<tr>
<td>UTL-1: Potential Environmental Effects Associated with Needed Construction or Expansion of Water and Wastewater Treatment Facilities in the Restoration Area</td>
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<td>UTL-5: Potential Need for New or Altered Facilities to Accommodate Increased Demand for Emergency Services in the Restoration Area</td>
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<td>UTL-6: Potential for Insufficient Existing Water Supply and Resources between the Merced River and the Delta</td>
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Table 2-2.
Summary of Less-than-Significant Impacts in the SJRRP PEIS/R (contd.)

<table>
<thead>
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<td>UTL-17: Potential Need for New or Altered Facilities to Accommodate Increased Demand for Emergency Services between the Merced River and the Delta</td>
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<tr>
<th>Visual Resources: Program-Level</th>
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<tbody>
<tr>
<td>VIS-1: Temporary and Short-Term Construction-Related Changes in Scenic Vistas, Scenic Resources, and Existing Visual Character</td>
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<tr>
<th>Visual Resources: Project-Level</th>
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<tbody>
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</tr>
<tr>
<td>VIS-5: Changes in Scenic Vistas, Scenic Resources, and Existing Visual Character Downstream from Friant Dam</td>
</tr>
</tbody>
</table>

Key:
CVP = Central Valley Project
GHG = greenhouse gas
SWP = State Water Project

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

Air Quality

Mitigation

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

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

• Exhaust emissions for construction equipment of greater than 50 horsepower that is used by, or associated with, the project will be reduced by 20 percent of the total NOX and by 45 percent of the total PM10 exhaust emissions from the statewide average, as estimated by ARB. Construction emissions may be reduced on site by using add-on controls, cleaner fuels, or newer lower-emissions equipment, thus generating less pollution.

• Additional strategies for reducing construction emissions, including, but not limited to, the following:
  - Providing sufficient commercial electric power to the project site to avoid or minimize the use of portable electric generators.
  - Substituting electric-powered equipment for diesel engine-driven equipment.
  - Limiting the hours of operation of heavy-duty equipment and/or the amount of equipment used at any one time.
  - Minimizing idling time (e.g., 10-minute maximum).
  - Replacing equipment that uses fossil fuels with electrically driven equivalents (provided that they are not run via a portable generator set).

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

• Pre-water the site enough to limit visible dust emissions (VDE) to 20 percent opacity.

• Phase the work to reduce the amount of surface area disturbed at any one time.
During active construction:

- Apply enough water or chemical/organic stabilizers or suppressants to limit VDE to 20 percent opacity.
- Construct and maintain wind barriers sufficient to limit VDE to 20 percent opacity.
- Apply water or chemical/organic stabilizers or suppressants to unpaved access/haul roads and unpaved vehicle/equipment traffic areas in sufficient quantity to limit VDE to 20 percent opacity and meet the conditions of a stabilized unpaved road surface.

- Limit the speed of vehicles traveling on uncontrolled, unpaved access/haul roads within construction sites to a maximum of 15 miles per hour (mph).
- Post speed-limit signs meeting the standards of the U.S. and California departments of transportation at the entrance to each construction site’s uncontrolled, unpaved access/haul road. Speed-limit signs will also be posted at least every 500 feet and will be readable in both directions of travel along uncontrolled, unpaved access/haul roads.

- When handling bulk materials:
  - Apply water or chemical/organic stabilizers or suppressants in sufficient quantity to limit VDE to 20 percent opacity.
  - Construct and maintain wind barriers sufficient to limit VDE to 20 percent opacity and with less than 50 percent porosity.

- When storing bulk materials:
  - Comply with the conditions for a stabilized surface, as listed above.
  - Cover bulk materials stored outdoors with tarps, plastic, or other suitable material and anchor the covers to prevent their removal by wind action.
  - Construct and maintain wind barriers that are sufficient to limit VDE to 20 percent opacity and that have less than 50 percent porosity. If using fences or wind barriers, apply water or chemical/organic stabilizers or suppressants to limit VDE to 20 percent opacity, or use a three-sided structure that is at least as high as the storage pile and has less than 50 percent porosity.

- Load all haul trucks such that the freeboard is not less than 6 inches when material is transported across any paved public-access road. Freeboard should be sufficient to limit VDE to 20-percent opacity.

- Apply enough water to the top of the load to limit VDE to 20 percent opacity.
• Cover haul trucks with a tarp or other suitable cover.

• Clean the interior of the cargo compartment or cover the cargo compartment before an empty truck leaves the site.

• Prevent carryout and trackout, or immediately remove carryout and trackout when it extends 50 feet or more from the nearest unpaved-surface exit point of a site.

• Clean up carryout and trackout using one of the following methods:
  – Manually sweeping and picking up.
  – Operating a rotary brush or broom accompanied or preceded by sufficient wetting to limit VDE to 20 percent opacity.
  – Operating a PM$_{10}$-efficient street sweeper that has a pickup efficiency of at least 80 percent.
  – Flushing with water, if curbs or gutters are not present and if using water would not result in a source of trackout material, adverse impacts on stormwater drainage systems, or violate any National Pollutant Discharge Elimination System permit program

• Submit a dust control plan to the air pollution control officer (APCO) before the start of any construction activity that would disturb 5 acres or more of surface area, or that would move, deposit, or relocate more than 2,500 cubic yards per day of bulk materials on at least 3 days. Do not begin construction activities until the APCO has approved or conditionally approved the dust control plan. Notify the APCO in writing, via fax or letter, within 10 days before earthmoving activities commence.

The project proponent will implement the following SJVAPCD-recommended enhanced and additional control measures for all construction phases to further reduce fugitive PM$_{10}$ dust emissions:

• Install sandbags or other erosion control measures to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1 percent.

• Suspend excavation and grading activity when winds exceed 20 mph.

**Finding**

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure AIR-1 will substantially lessen program-level impacts associated with construction-related emissions of criteria air pollutants and precursors. The project proponent will obtain the necessary information to perform a complete quantitative project-level air emissions analysis as part of the subsequent environmental review for each construction project when such review is required. In addition, future projects will be designed to comply with general mitigation requirements for construction emissions, as contained in
SJVAPCD Rule 9510, “Indirect Source Review” (ISR) and SJVAPCD’s Regulation VIII, “Fugitive Dust PM10 Prohibitions.” Compliance with SJVAPCD’s Rule 9510 will result in a minimum 20 percent reduction in NOX emissions from heavy-duty diesel equipment, compared with statewide average emissions and also will reduce emissions of ROG (reactive organic gases) and PM10 exhaust from heavy-duty diesel equipment by 5 percent and 45 percent, respectively. Compliance with SJVAPCD’s Regulation VIII and implementation of all applicable SJVAPCD-recommended control measures will further reduce particulate emissions. As a result, generation of construction-related dust (PM10 emissions) will be reduced below SJVAPCD levels of significance. However, without specific project-level information, construction emissions of ROG and NOX are not quantifiable at this time, and it cannot be determined whether mitigation will reduce emissions to a less-than-significant level (e.g., emissions may still exceed 10 tons per year even with the ISR reductions of 20 percent and 5 percent for NOX and ROG, respectively). Therefore, this impact would remain potentially significant and unavoidable after mitigation. DWR finds this remaining potentially 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.

Climate Change and Greenhouse Gas Emissions
Impact CLM-1: Construction-Related Emissions of GHGs—Program-Level.

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

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) Technical Advisory on CEQA and Climate Change (2008), and the SJVAPCD Guidance document (SJVAPCD 2009).

Finding
For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure CLM-1 will help reduce potentially significant GHG emissions by individual projects, and it could result in a less-than-significant impact because 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 and will implement all feasible measures for reducing GHG emissions. However, without specific project-level information, the levels of GHG emissions after mitigation cannot be quantified at this time. Thus, without relying on speculation, it is assumed that construction-generated GHG emissions could result in a cumulatively considerable incremental contribution to a
significant cumulative impact on global climate change. DWR finds this remaining potentially significant and unavoidable cumulative 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 CLM-4: Operational Emissions of GHGs—Project Level.

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

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

Table 2-3. Potential Mitigation Strategies

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

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

Table 2-4. Existing and Future Regulatory Programs

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

Key: AB = Assembly Bill  CCR = California Code of Regulations  GWP = global warming potential
EO = Executive Order  SB = Senate Bill
ARB = California Air Resources Board
**Finding**

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure CLM-1 will reduce GHG emissions to less than the maximum estimated amount, but the emissions that ultimately will occur remain uncertain. Because of the uncertainty of the ultimate emissions and their potential magnitude, operational emissions of GHGs could result in a cumulatively considerable incremental contribution to a significant cumulative impact on global climate change. DWR finds this remaining potentially significant and unavoidable cumulative 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.

**Cultural Resources**

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

**Mitigation**

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

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

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

- **Conduct Class III cultural resources surveys of portions of the project area that have not been surveyed.** Before any ground disturbance takes place in the project area (including areas of ancillary activities, such as staging areas and access routes), Class II cultural resource surveys covering the APE will be conducted to locate and record cultural resources. Where appropriate, subsurface discovery efforts also will be undertaken to identify buried archaeological sites.
• **Plan activities to avoid known cultural resources.** Before carrying out ground-disturbing activities, areas that have been delineated as containing cultural resources will be demarcated, and all ground-disturbing or related activities will be planned to avoid these areas.

• **Evaluate significance of resources that cannot be avoided.** If cultural resources cannot be avoided through careful planning of the activities associated with a project, additional research or test excavation (as appropriate) will be undertaken to determine whether the resources meet NRHP and/or CEQA significance criteria.

• **Develop treatment process to mitigate effects of project upon significant resources.** Impacts on significant resources that cannot be avoided will be mitigated in a manner that is deemed appropriate for the particular resource. Mitigation for significant resources may include, but are not be limited to, data recovery, public interpretation, performance of a Historic American Building Survey or Historic American Engineering Record, or preservation by other means.

**Finding**

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

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

**Mitigation**

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

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 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.

**Finding**

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

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

**Mitigation**

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

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

**Finding**

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure CUL-2 will reduce potentially significant impacts on cultural resources within the Restoration Area to a less-than-significant level because Reclamation will comply with the NHPA Section 106 process. This will include developing a PA with SHPO, identifying archaeological sites and historic Native American places with the potential for significant impacts to occur because of changes in reservoir operations, complying with the PA process for the evaluation and recovery of data at any such cultural resource, and ensuring the evaluation and recovery of data at these sites.
Impact CUL-4: Disturbance or Destruction of Cultural Resources Along the San Joaquin River Downstream from the Merced River—Project-Level.

**Mitigation**

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

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

**Finding**

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

**Geology and Soils**


**Mitigation**

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

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

**Finding**

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

Impact FLD-1: 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—Program-Level.

Mitigation

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

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

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

Finding

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure FLD-1 will reduce potentially significant impacts associated with exposure of 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 to a less-than-significant level because the project proponents for each site-specific project will conduct a site-specific study and incorporate actions into the design of individual projects to reduce redirected flood flow impacts based on known and accepted engineering design standards and features. Actions can include but may not be limited to modifying project design and existing levees, providing a larger floodplain between levees through the acquisition of land and construction of setback levees, or regrading of land between levees.
Hydrology—Groundwater

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

Mitigation

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

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

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

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

Finding

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

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

Mitigation

No mitigation is available.

Finding

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

CVP/SWP service areas. DWR finds this remaining potentially 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 GRW-5: Change in Groundwater Quality in CVP/SWP Water Service Areas—Project-Level.

Mitigation
No mitigation is available.

Finding
For the reasons stated in the PEIS/R, DWR finds that reduced surface water deliveries to Friant Division long-term contractors would result in increased use of groundwater supplies, thereby increasing overdraft. The increase in groundwater pumping for a prolonged period would not only decrease groundwater levels, but could potentially lead to upwelling of poorer quality. The San Joaquin Valley Groundwater Basin is in a state of overdraft, and groundwater levels are expected to continue in a downward trend. Whether remaining groundwater overdraft would be potentially significant and unavoidable is unknown, and no feasible mitigation measures exist to reduce impacts associated with changes in groundwater quality in the CVP/SWP service areas. DWR finds this remaining potentially 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.

Hydrology—Surface Water Supplies and Facilities Operations

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

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

Finding
For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure SWS-1 will reduce potentially significant impacts associated with changes in diversion capacity to a less-than-significant level because project proponents will provide
alternative equivalent pumping capacity in areas where construction activities impede the
operation of existing diversion facilities.

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

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

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

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

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

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

Finding
For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measures
SWQ-1A and SWQ-1B will reduce potentially significant impacts associated with
temporary construction-related effects on surface water quality to a less-than-significant
level because any required permits from the Central Valley RWQCB will be obtained by
project proponents for site-specific projects before any ground-disturbing construction
activities occur, and an SWPPP will be prepared that identifies BMPs to prevent or
minimize the introduction of contaminants into surface waters, prevent and control
impacts on runoff quality, and identify measures to be implemented before each storm
event. In addition, 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 occur and will
implement all recommended actions and measures identified in the Phase I
Environmental Site Assessment.

**Land Use Planning and Agricultural Resources**

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

**Mitigation**

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

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

- When selecting sites for borrow excavation, minimize the fragmentation of lands that are to remain in agricultural use. Retain contiguous parcels of agricultural land of sufficient size to support their efficient use for continued agricultural production.

- Perform reclamation of all borrow sites in compliance with the California SMARA, thus retaining their potential use for agriculture. Under SMARA, the removal of borrow material is a surface mining activity and as such is regulated by the SMARA statute. SMARA requires that the surface mine operator secure a use permit, reclamation plan, and financial assurance mechanism. The SMARA statute also identifies activities and situations that are exempt from SMARA. The project proponent will comply with SMARA by coordinating with the relevant SMARA lead agency (usually within the county in which mining occurs) and the DOC to identify and implement the appropriate mechanism for satisfying SMARA.

- Where the levee system and Mendota Pool Bypass would transect agricultural properties, and the landowners desire to continue agricultural use on the portions located within the levee system and bypass, provide a means of convenient access to these properties.

- The project proponent will either (1) acquire agricultural conservation easements at a 1:1 ratio (i.e., 1 acre on which easements are acquired to 1 acre of Important Farmland removed from agricultural use) in coordination with affected landowners to maximize the potential for affected landowners to continue to use such lands to the extent possible, to be held by land trusts or public agencies who will be 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.

- Stockpile the upper 2 feet of soil from borrow sites and from portions of levee, bypass, and other project feature footprints that are Important Farmland. Stockpiled soil would be used in subsequent restoration of agricultural uses or redistributed for agricultural purposes in coordination with affected landowners.

- Restore for agricultural uses those portions of borrow sites and of levee, bypass, and other project feature footprints that are Important Farmland and are not converted to project features, managed habitat, or project mitigation for nonagricultural impacts, in coordination with affected landowners. Restoration for agricultural use would include redistribution of salvaged topsoil and earthwork for necessary irrigation and drainage.

- Redistribute the most productive salvaged topsoil that is not used in restoring agricultural uses to affected Important Farmland. Redistribution will be to less productive agricultural lands near but outside the levee setback and Mendota Pool Bypass areas that could benefit from the introduction of good-quality soil. By agreement between Reclamation or landowners of affected properties and the recipient(s) of the topsoil, the recipient(s) must use the topsoil for agricultural purposes.

- Minimize disturbance of Important Farmland and continuing agricultural operations during construction by implementing the following measures in coordination with affected landowners:
  - Locate construction laydown and staging areas on sites that are fallow, disturbed, or to be discontinued for use as agricultural land to the extent possible.
  - Use existing roads to access construction areas to the extent possible.

- Coordinate with growers to develop appropriate construction practices to minimize construction-related impairment of agricultural productivity. Practices may include coordinating the movement of heavy equipment within the levee setback and Mendota Pool Bypass areas and implementing traffic control measures outside these areas.


To reduce impacts on lands under Williamson Act and Super Williamson Act contracts, the project proponent will implement the measures described below.
• The project proponent will comply with California Government Code Sections 51290–51295 with regard to acquiring lands under Williamson Act–contracted lands. Sections 51290(a)–51290(b) state that State policy, consistent with the purpose of the Williamson Act to preserve and protect agricultural land, is to avoid locating public improvements and any public utilities improvements in agricultural preserves, whenever practicable. If such improvements must be located within a preserve, they will be located on land that is not under contract.

• More specifically, the project proponent will comply with the following basic requirements stated in the California Government Code:

  - Whenever it appears that land within a preserve or under contract may be required for a public improvement, DOC and the city or county responsible for administering the preserve must be notified (Section 51291(b)).

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

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

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

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

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

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

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


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...
would be significant and unavoidable. 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-4: Physically Divide or Disrupt an Established Community—Project-Level.**

**Mitigation**

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

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

**Finding**
For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure
LUP-4 will reduce potentially significant impacts resulting from intermittent road
closures to a less-than-significant level because 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, in accordance with current Caltrans Standard Plans and
Specifications. The detour plan will include an assessment of existing roadway
conditions, whether paved or unpaved; will provide convenient and parallel vehicular
traffic detours for routes closed; and will have provisions for repair and maintenance if
the roadway conditions are substantially degraded from increased use.

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

**Mitigation**

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

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:

- 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 groundwater seepage monitoring and modeling
  included in the action alternatives, through alternative or additional monitoring or
modeling, as necessary, and through consideration of feedback provided by landowners through the Seepage and Conveyance Technical Feedback Workgroup or similar mechanism.

- 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.

Finding
For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure LUP-5 will lessen impacts associated with the loss of agricultural land resource quality and importance because of altered and/or soil inundation. If groundwater seepage effects cannot be avoided or are addressed by compensating affected landowners, the agricultural productivity of Important Farmland will be preserved to the extent feasible because the acreage of Important Farmland converted to nonagricultural uses from Interim or Restoration flows will be determined and mitigation for the conversion of Important Farmland to nonagricultural uses will occur through acquisition of agricultural conservation easements at a 1:1 ratio or through providing funds to a land trust or government program that conserves agricultural land sufficient to obtain easements on comparable land at a 1:1 ratio for the acreage of Important Farmland. However, Mitigation Measure LUP-5 will not reduce the impact to a less-than-significant level because a substantial amount of Important Farmland may still be converted, and no additional mitigation measures exist to fully mitigate the loss of this Important Farmland. Therefore, this impact would remain potentially significant and unavoidable after mitigation. DWR finds this remaining potentially 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-8: Substantial Diminishment of Agricultural Land Resource Quality and Importance Because of Altered Water Deliveries—Project-Level.

Mitigation
No mitigation is available.

Finding
For the reasons stated in the PEIS/R, DWR finds that water deliveries to Friant Division long-term contractors will be reduced, which will result in a shortfall of surface water supplies during some dry years and, thus, will result in additional groundwater pumping, changes in agricultural practices (e.g., crop selection), and idling of cropland. No alternative supply of water to Friant long-term contractors is feasible for Reclamation,
and no mitigation measures exist to reduce impacts associated with diminishment of agricultural land resource quality and importance because of altered water deliveries. Therefore, this impact would be significant and unavoidable. 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.

**Noise**

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

**Mitigation**

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

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

- Conduct a preliminary noise analysis report to determine future program construction noise levels at sensitive receptors based on, but not limited to, a detailed construction equipment list, construction schedule, ground attenuation factors, and distances to sensitive receptors located within 500 feet of future program construction sites.

- Provided that future program construction noise results in significant impacts at sensitive receptors, the following mitigation measures shall be implemented:
  - Equipment will be used as far away as practical from noise-sensitive uses.
  - Construction equipment will be properly maintained per manufacturers’ specifications and fitted with the best available noise suppression devices (e.g., mufflers, silencers, wraps). All impact tools will be shrouded or shielded, and all intake and exhaust ports on power equipment will be muffled or shielded.
  - Equipment that is quieter than standard equipment will be used, including electrically powered equipment instead of internal combustion equipment where use of such equipment is a readily available substitute that accomplishes program tasks in the same manner as internal combustion equipment.
  - Construction site and haul road speed limits will be established and enforced.
- The use of bells, whistles, alarms, and horns will be restricted to safety and warning purposes only.

- Construction equipment will not idle for extended periods of time when not being used during construction activities.

- When construction activities are conducted within 2,000 feet of noise-sensitive uses, noise measurements will be taken at the nearest noise-sensitive land uses relative to construction activities with a sound-level meter that meets the standards of the American National Standards Institute (ANSI Section S14 1979, Type 1 of Type 2). This would allow that construction noise levels associated with the restoration program to comply with applicable daytime and nighttime noise standards. When construction noise exceeds applicable daytime and nighttime standards, berms, or stockpiles will be used in an attempt to lower noise levels to within acceptable nontransportation standards. If noise levels are still determined to exceed noise standards, temporary barriers will be erected as close to the construction activities as feasible, breaking the line of sight between the source and receptor where noise levels exceed applicable standards. All acoustical barriers would be constructed with material having a minimum surface weight of 2 pounds per square foot or greater and a demonstrated Sound Transmission Class (STC) rating of 25 or greater, as defined by Test Method E90 of the American Society for Testing and Materials. Placement, orientation, size, and density of acoustical barriers will be specified by a qualified acoustical consultant.

- A disturbance coordinator will be designated to post contact information in a conspicuous location near the construction site entrance so that it is clearly visible to nearby receivers most likely to be disturbed. The coordinator will manage complaints resulting from the construction noise. Reoccurring disturbances will be evaluated by a qualified acoustical consultant to ensure compliance with applicable standards. The disturbance coordinator will contact nearby noise-sensitive receptors, advising them of the construction schedule.

**Finding**

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure NOI-1 will reduce impacts associated with the exposure of sensitive receptors to temporary and short-term construction noise because construction equipment will be properly maintained and operated as far away as practical from noise-sensitive uses; berms, stockpiles, or other temporary barriers will be erected as close to the construction activities as feasible to reduce noise levels; and construction site and haul road speed limits will be established and enforced. However, implementing Mitigation Measure NOI-1 may not reduce noise levels at all times to a less-than-significant level because of the potential close proximity of noise-sensitive receptors to construction activities and the limited feasibility of mitigating construction noise to acceptable levels. Therefore, this impact would remain potentially significant and unavoidable after mitigation. DWR finds this remaining potentially 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 NOI-2: Exposure of Sensitive Receptors to Increased Off-Site Traffic Noise Levels—
Program-Level.

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

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

• Conduct a preliminary noise analysis report to determine future program haul
  routes for construction-related traffic noise associated with Settlement actions,
  and conduct a traffic noise analysis for individual actions to establish existing
  average daily traffic volumes, fleet mixes (percentages of automobiles, medium-
  duty trucks, and heavy-duty trucks during daytime, evening, and nighttime hours),
  and vehicle speeds along designated haul-route roadways.

• Provided that future program construction haul route noise results in significant
  impacts at sensitive receptors, the following mitigation measures shall be
  implemented:

  - Conduct a noise survey to determine ground attenuation factors, roadway
    grades, and distances to sensitive receptors along designated haul-route
    roadways.

  - Model existing traffic noise levels for comparison of construction-related
    traffic noise level increases along haul-route roadway segments using the
    FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) or other
    acceptable traffic noise prediction models (e.g., TNM, Soundplan).

  - Identify roadway segments along haul routes that result in a substantial
    increase of construction-related traffic noise levels caused by SJRRP actions.

  - Develop and implement project-specific mitigation measures to reduce
    construction-related traffic noise-level increases on haul routes near sensitive
    resources to include, but not be limited to the following:

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

**Finding**

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure NOI-1 will reduce impacts associated with the exposure of sensitive receptors to increased off-site traffic noise levels because project-specific mitigation measures will be developed based on noise surveys and the results of traffic modeling. However, implementing Mitigation Measure NOI-2 may not reduce noise levels at all times to a less-than-significant level for some haul routes because of the potential close proximity of noise-sensitive receptors to haul routes, potential site restrictions when installing temporary noise barriers, and the limited feasibility of mitigating construction noise to acceptable levels. Therefore, this impact would remain potentially significant and unavoidable after mitigation. DWR finds this remaining potentially 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 NOI-3: Exposure of Sensitive Receptors to Long-Term Operation-Related Noise Levels from Stationary Sources—Program-Level.**

**Mitigation**

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

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

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

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

**Mitigation**

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

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

- Conduct a preliminary noise analysis report to determine future construction-related program borrow site noise based on, but not limited to, a detailed equipment list, hours of operation, ground attenuation factors, and distances to sensitive receptors located within 500 feet of future program borrow sites.

- Provided that future program borrow site noise results in significant impacts at sensitive receptors, the following mitigation measures shall be implemented:
  - Evaluate resultant borrow site activity noise levels at sensitive receptor locations, taking into account distance, site topography, and ground type.
  - Identify sensitive receptors that would experience borrow site noise levels that exceed applicable noise standards.
  - Incorporate the use of stockpiles, dumpsters, trailers, or inactive heavy-duty equipment to perform as temporary barriers. If noise levels are still determined to exceed noise standards, temporary barriers will be erected as close to the construction activities as feasible, breaking the line of sight between the source and the receptor where noise levels exceed applicable standards. All acoustical barriers will be constructed with material having a minimum surface weight of 2 pounds per square foot or greater and a demonstrated STC rating of 25 or greater, as defined by Test Method E90 of the American Society for Testing and Materials. Placement, orientation, size, and density of acoustical barriers will be specified by a qualified acoustical consultant.
Limit borrow site activities to daytime hours only when in close proximity to sensitive receptors, to avoid the more sensitized state of receptors typical of evening and nighttime hours.

**Finding**

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

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

**Mitigation**

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

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

- Conduct a preliminary groundborne noise and vibration analysis report to determine future construction-related program groundborne noise and vibration levels based on, but not limited to, a detailed equipment list, hours of operation and distances to sensitive receptors located within 500 feet of future program borrow sites.

- Provided that future program groundborne noise and vibration results in significant impacts at sensitive receptors, the following mitigation measures shall be implemented:

  - A disturbance coordinator will be designated and this person’s contact information will be posted in a location near construction areas where it is clearly visible to the nearby receptors most likely to be disturbed. The coordinator would manage complaints and concerns resulting from activities that cause vibrations. The severity of the vibration concern should be assessed by the coordinator and, if necessary, evaluated by a qualified noise and vibration control expert.
- Vibration monitoring will be conducted before and during pile driving operations occurring within 100 feet of historic structures. Every attempt will be made to limit construction-generated vibration levels during pile driving and other groundbourne noise and vibration-generating activities in the vicinity of the historic structures in accordance with Caltrans recommendations.

- Adjacent historic features will be covered or temporarily shored, as necessary, for protection from vibrations, in consultation with the appropriate cultural resources authority.

- Pile driving required within a 50-foot radius of residences will use alternative installation methods where possible (e.g., pile cushioning, jetting, predrilling, cast-in-place systems, resonance-free vibratory pile drivers). This would reduce the number and amplitude of blows required to seat the pile.

- Pile-driving activities conducted within 285 feet of sensitive receptors will occur during daytime hours to avoid sleep disturbance during evening and nighttime hours.

**Finding**

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

**Paleontological Resources**

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

**Mitigation**

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

To minimize potential adverse impacts on unique, scientifically important paleontological resources during earthmoving activities, Mitigation Measure PAL-1 would be implemented by the project proponent during construction for any action implemented under the Settlement to reduce possible damage to unique paleontological resources, as described below.
If paleontological resources are discovered during earthmoving activities, the
construction crew would immediately cease work in the vicinity of the find. A qualified
paleontologist would be retained to evaluate the resource and prepare a recovery plan in
accordance with SVP guidelines. The recovery plan may include a field survey,
construction monitoring, sampling and data recovery procedures, museum storage
coordination for any specimen recovered, and a report of findings. Recommendations in
the recovery plan would be implemented before construction activities could resume at
the site where the paleontological resources were discovered.

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

Public Health and Hazardous Materials
Impact PHH-1: Exposure of Construction Workers and Others to Hazardous Materials—
Program-Level.

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

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.

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

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

Mitigation
Mitigation Measure PHH-4: Implement Workplace Precautions against West Nile Virus and
Valley Fever—Program-Level.
Project proponents of subsequent site-specific projects will implement the following workplace precautions against WNV and Valley Fever at construction sites:

- Inspect work areas, eliminate sources of standing water that could potentially provide breeding habitat for mosquitoes. For example, eliminate uncovered, upright containers that could accumulate water; store open containers in the work area; and fill or drain potholes and other areas where water is likely to accumulate.

- Conduct employee training that covers the potential hazards and risks of WNV and Valley Fever exposure and protection, including proper construction apparel. Employees will be instructed not to touch any dead birds with their bare hands.

- Provide dust masks for worker use at construction sites during ground-disturbing activities.

- Provide insect repellent for worker use at construction sites with a minimum of 23.8 percent diethyl(meta)toulamide (DEET).

- Notify the appropriate city or county health department of dead birds seen on the construction site.

**Finding**

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

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

**Mitigation**

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

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

**Finding**

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure PHH-5 will reduce potentially significant impacts related to safety hazards near schools.
to a less-than-significant level by requiring project proponents to notify all schools, or the
related school district, located within one-quarter mile of a construction area; identify the
type of potential hazards that may be encountered; and provide guidance to the school(s)
on the potential effects that the hazards may have on school children.

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

Mitigation

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

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

Finding

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

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

Mitigation

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

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:
• 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 Best Management Practices for Mosquito Control on California State Properties (CDPH 2008).

• 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.

Finding
For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure PHH-9 will reduce potentially significant impacts related to exposure to diseases to a less-than-significant level because 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.

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

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

The project proponent would mitigate trout fishing opportunities lost on the San Joaquin River below Friant Dam because of Settlement actions by enhancing public fishing access and trout populations on the Kings River below Pine Flat Dam. Specific actions to enhance fishing access would be developed in cooperation with the Kings River Conservancy and State and local agencies participating in ongoing park and river access construction and enhancement projects. Example projects include construction of the Kings River Access Park or similar facilities to provide anglers and others with amenities such as nonmotorized boat launches, parking areas, restrooms, information kiosks, and picnic tables. In addition, specific actions to enhance trout populations could be developed in cooperation with the Kings River Water Association, Kings River Conservation District, and DFG in support of the Kings River Fisheries Management Program Framework Agreement and Fisheries Management Program. Specific actions to enhance trout populations may include fish habitat enhancement projects in the river, fish
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stocking, and fish population monitoring. Actions could also include hatchery production of catchable trout, particularly if the San Joaquin Hatchery reduces trout production as a result of producing salmon in support of implementing the Settlement.

**Finding**

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

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

**Mitigation**

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

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

**Finding**

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure REC-5 will reduce potentially significant impacts related to effects on Reach 1 warm-water angling opportunities from program actions within the Restoration Area to a less-than-significant level because the project proponent will be required to enhance remaining warm-water fishing opportunities or create new opportunities in the vicinity of Reach 1 of the San Joaquin River where warm-water fishing opportunities are lost as a result of filling or isolating gravel pit ponds. Specific actions to enhance warm-water
fishing opportunities will be developed in cooperation with the SJRC, the SJRPCT, DFG, Fresno County, and other agencies participating in management of the San Joaquin River Parkway.

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

**Mitigation**

Mitigation Measure REC-9: 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—Project-Level.

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.

**Finding**

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure REC-9 will reduce potentially significant impacts resulting from earlier seasonal drawdown of Millerton Lake to a less-than-significant level because Reclamation will extend existing low-water launch ramp(s), develop a new ramp, or provide 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 the driest years.

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

**Mitigation**

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

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.
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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 available on the lower Kings River below Pine Flat Reservoir.

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:

- 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.

- 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.

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.

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

Finding
For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure REC-12 will reduce significant impacts on boating opportunities to a less-than-significant level because Reclamation will develop and implement a recreation outreach program that informs 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.

Transportation and Infrastructure
Impact TRN-1: Reduced Traffic Circulation and Roadway Capacity—Program-Level.

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

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

- Require construction contractors to limit truck trips to less than 50 per hour on any affected roadway during the morning and afternoon or evening peak hour periods, if feasible.

- Before construction, prepare a traffic management plan that identifies the number of truck trips, time of day for arrival and departure of trucks, limits on number of truck trips, and traffic circulation control measures. Control measures typically include advertising planned lane closures, warning signage, a flag person to direct traffic flows when needed, and methods for maintaining continued access by emergency vehicles. During project construction, access to existing land uses will be maintained at all times, with detours used as necessary during road closures.

- Submit the traffic management plan to the appropriate county public works, fire, police, and sheriff departments for comments.

- Implement the traffic management plan and feasible recommendations by the appropriate departments.

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

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the appropriate county public works, fire, police, and sheriff departments for comments;
and implement the traffic management plan and feasible recommendations made by these
departments. If truck trips are limited to no more than 50 trips during the morning and
afternoon or evening peak hour periods, implementation of Mitigation Measure TRN-1
will reduce this impact to a less-than-significant level. However, limiting the number of
peak hour truck trips to no more than 50 may not be feasible with respect to the
construction schedule for maximum efficiency and public safety. Therefore, this impact
would remain potentially significant and unavoidable after mitigation. DWR finds this
remaining potentially 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 TRN-2: Creation of a Hazard as a Result of a Design Feature—Program-Level.

Mitigation

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

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

- Request an underground service alert to determine the location of all underground
  utility facilities.

- When underground utility facilities are present, coordinate with the owner of a
  transmission line or pipeline to obtain design specifications of underground
  facilities.

- Design restoration actions to avoid affecting underground utility facilities.

- If avoiding underground facilities is not feasible, coordinate with the utility owner
  to shut off and relocate the utilities as necessary.

Finding

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

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

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

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

Finding

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

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

Mitigation

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

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

Finding

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


Mitigation

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

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.

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 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. 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.

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:

- Watering
- Uniform layer of washed gravel
- Chemical/organic dust stabilizers/suppressants in accordance with the manufacturer’s specifications
- Roadmix
- Paving
- 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.

**Finding**

For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure TRN-7 will reduce potentially significant impacts resulting from inadequate emergency access to a less-than-significant level because 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, in accordance with existing Caltrans Standard Plans and
Specifications. The detour plan will include an assessment of existing roadway conditions, whether paved or unpaved; will provide convenient and parallel vehicular traffic detours for routes closed; and will make provisions for repair and maintenance if the roadway conditions are substantially degraded from increased use.

Utilities and Service Systems


Mitigation


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

Finding

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


Mitigation

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

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

- Prepare an estimate of solid waste that will be generated by the action(s).
- Maximize the recycling and/or composting of solid waste generated by the action at appropriate locations.
- Identify appropriate recycling and/or disposal locations in accordance with applicable Federal, State, and local regulations pertaining to solid waste.
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- Notify the operator of the recycling/disposal location and obtain approval for the type and amount of solid waste that will be generated by the action(s).

- If sufficient capacity is unavailable at the identified location, identify and obtain approval for disposal at another location or multiple locations.

**Finding**

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

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

**Mitigation**

No mitigation is available.

**Finding**

For the reasons stated in the PEIS/R, DWR finds that an overall reduction in surface water deliveries to Friant Division long-term contractors will result if all Interim and Restoration flows are not recaptured to result in increased use of groundwater supplies, thereby increasing overdraft. Reclamation will consider regional overdraft conditions in evaluating candidate groundwater banking projects developed under Title III of the Act. Whether remaining water supplies will be potentially significant is unknown, and no feasible mitigation measures exist to reduce impacts associated with the potential for insufficient existing water supplies and resources. DWR finds this remaining potentially 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 UTL-16: Potential for Insufficient Existing Water Supply and Resources from Recapture of Interim and Restoration Flows Between the Merced River and the Delta—Project-Level.**

**Mitigation**

No mitigation is available.

**Finding**

For the reasons stated in the PEIS/R, DWR finds that an overall reduction in surface water will result if all Interim and Restoration flows are not recaptured between the
Merced River and the Delta to result in increased use of groundwater supplies, thereby increasing overdraft. Reclamation will consider regional overdraft conditions in evaluating candidate groundwater banking projects developed under Title III of the Act. Whether the remaining water supplies will be potentially significant is unknown, and no feasible mitigation measures exist to reduce impacts associated with the potential for insufficient existing water supplies and resources between the Merced River and the Delta. DWR finds this remaining potentially 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.

Visual Resources

Mitigation

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

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

Finding
For the reasons stated in the PEIS/R, DWR finds that implementing Mitigation Measure VIS-2 will lessen potentially significant impacts associated with long-term changes in scenic vistas, scenic resources, and existing visual character because new facilities will be sited away from sensitive view sheds and visual screening will be provided to soften views of the facilities. Whether this Mitigation Measure VIS-2 will reduce impacts to a less-than-significant level in all circumstances is unknown. Therefore, this impact would remain potentially significant and unavoidable after mitigation. DWR finds this remaining potentially 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 VIS-3: Substantial Changes in Light or Glare—Program-Level.

Mitigation


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

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

Finding

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

2.3.2 Findings Related to Cumulative Impacts

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

**Air Quality**

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

The quantity of ROG and NOX emissions was estimated under a maximum construction intensity scenario. Implementation of the action alternatives with mitigation may exceed SJVAPCD thresholds. Thus, emissions of pollutants during construction of action alternatives could violate or contribute substantially to an existing or projected air quality violation, and/or expose sensitive receptors to substantial pollutant concentrations. In addition, the San Joaquin Air Basin is currently designated as a nonattainment area for ozone, PM10, and PM2.5; therefore, construction-generated emissions could make a cumulatively considerable incremental contribution to cumulative pollutant concentrations that exceed California ambient air quality standards.

Implementation of Mitigation Measure AIR-1 will reduce construction-related impacts from PM10 emissions to a less-than-significant level. Assuming that all reasonably foreseeable probable future projects also implement all feasible construction emissions control measures consistent with SJVAPCD guidelines and regulations, the impact of construction emissions from cumulative projects may be less than significant, although larger projects would likely result in significant and unavoidable air quality impacts on their own. However, given the scale of development that would occur with the reasonably foreseeable probable future projects combined with the nonattainment status of the San Joaquin Valley Air Basin for ozone, PM10, and PM2.5, the SJRRP actions would likely make a cumulatively considerable contribution to a significant cumulative construction-related air quality impact. This PEIS/R includes all available feasible mitigation to reduce the contribution of the SJRRP actions to cumulative air quality impacts. These mitigation measures will substantially reduce air emissions associated with the SJRRP actions, but they are not sufficient to reduce the cumulative contribution of the SJRRP actions to below a level that is considerable. Consequently, SJRRP actions would have a cumulatively considerable incremental contribution to a significant cumulative air quality impact during construction activities. The project’s contribution to this significant cumulative impact would be significant and unavoidable.

**Biological Resources—Fisheries**

Water temperatures in Reaches 1 and 2 in the San Joaquin River are expected to change as a result of the combined effects of SJRRP actions and potential future implementation
of the USJRBSI, which is considered to be a reasonably foreseeable future project.

Although this would benefit salmonid and other native fishes, a shift in species abundance may occur. The potential impacts are outweighed by the benefits that would arise from this project with respect to water temperature. Although the overall effect of the SJRRP actions is expected to be beneficial to most representative fish species in the San Joaquin River, several SJRRP actions could result in adverse impacts on existing populations of anadromous salmonids and contribute to cumulative impacts.

Reintroducing spring-run Chinook salmon to the San Joaquin River in the Restoration Area could result in compromised genetic integrity and fitness of wild stocks in the major San Joaquin River tributaries (the Merced, Tuolumne, and Stanislaus rivers) if reintroduction includes hatchery stock and hybridization between wild and hatchery fish occurs. Disease organisms could also be carried by brood stock from sources in the Sacramento River basin or by hatchery fish used to supplement the reintroduced spring-run Chinook salmon population. Such a disease outbreak could lead to direct mortality or reduced fecundity among wild fall-run Chinook salmon in the major San Joaquin River tributaries. Wild fall-run Chinook salmon in the major San Joaquin River tributaries have already experienced a significant cumulative impact from past and present projects alone. Direct mortality or reduced fecundity resulting from such an outbreak would be considered a potentially cumulatively considerable incremental contribution to this overall significant cumulative impact on wild fall-run Chinook salmon in the San Joaquin River tributaries. The project’s potential contribution to this significant cumulative impact would be potentially significant and unavoidable.

Climate Change and Greenhouse Gas Emissions

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

Cultural Resources

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

Prehistoric human habitation sites are common in riverbank and floodplain areas, and burial sites are often encountered in the course of ground-disturbing activities. It is likely
that known or unknown archaeological resources could be disturbed and cultural
resources damaged or destroyed during construction activities for any of the SJRRP
actions. Losses of a unique archaeological resource could occur where excavations
encounter archaeological deposits that cannot be removed or recovered (e.g., under
levees), or where recovery would not be sufficient to prevent the loss of the cultural
material’s significance. Historic resources could also be damaged or require removal
from areas near flood control facilities under the SJRRP actions. If these resources would
be eligible for National Register of Historic Places listing, the impact of their
modification or destruction would be significant. Although implementation of Mitigation
Measures CUL-1, CUL-2, CUL-3, and CUL-4 will reduce effects on potentially
significant cultural resources, adverse effects, particularly on archaeological resources,
may still occur, and thus the impact would be significant and unavoidable. Losses of
archaeological resources would add to a historical trend in the loss of these resources as
artifacts of cultural significance and as objects of research importance; therefore, there is
an overall significant cumulative impact on cultural resources along the San Joaquin
River. Despite the implementation of mitigation measures, the SJRRP actions have the
potential to make a cumulatively considerable incremental contribution to a significant
cumulative impact on cultural resources along the San Joaquin River. The project’s
potential contribution to this significant cumulative impact would be potentially
significant and unavoidable.

Hydrology—Groundwater

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

Drawdown of the groundwater levels in the short term is estimated to be within the
historical range of groundwater levels, which is not anticipated to lead to upwelling of
saline groundwater. Under the SJRRP actions, drawdown of groundwater levels in the
Friant Division service area would be accelerated in the short term. This accelerated
drawdown would result in further degradation of groundwater quality because increased
groundwater pumping would be expected as a result of reductions in surface water
deliveries. Implementation of any of the SJRRP actions could accelerate the upwelling of saline groundwater into the groundwater aquifer. The extent of and the speed in which groundwater quality would be degraded is not known and there are no feasible mitigation measures for this impact. Because of the uncertainty and lack of mitigation, the SJRRP actions would cause a cumulatively considerable incremental contribution to an overall significant cumulative impact on groundwater quality and the extent of groundwater upwelling in the Friant Division service area. The project’s contribution to this significant cumulative impact would be significant and unavoidable.

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

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

**Land Use Planning and Agricultural Resources**

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

Restoration actions in Reach 2B would convert up to 2,300 acres of Important Farmland. Constructing a bypass around Mendota Pool with integrated floodplain habitat would convert up to 420 acres of Important Farmland; restoration actions in Reach 4B1 would convert up to 5,600 acres of Important Farmland. Lands used for borrow sites are assumed to be designated as Important Farmland. The area of disturbance required for the
borrow sites is unknown, and the acreage of Important Farmland that may be directly
converted to nonagricultural uses for borrow sites cannot be quantified at this time.

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

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

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

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

The amount of Interim and Restoration flows would change over time as restoration
actions are implemented, and so would the amount of water recaptured and returned to
Friant Division long-term contractors, and storage of and groundwater recharge by
surplus water from wet years. Overall, however, there would be reduced water deliveries
to Friant Division long-term contractors that would affect cropping patterns, idling of
farmland, and productivity, and would combine with other significant cumulative effects
on agricultural productivity.
Overall, the SJRRP actions would cause a cumulatively considerable incremental contribution to a significant cumulative impact on agricultural resources and productivity, Important Farmland, and Williamson Act contracts. The project’s contribution to this significant cumulative impact would be significant and unavoidable.

**Noise**

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

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

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

**Utilities and Service Systems**

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

**Visual Resources**

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

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

**2.3.3 Findings Related to Project Alternatives**

Where a lead agency has determined that, even after adoption of all feasible mitigation
measures, a project as proposed would still cause one or more significant environmental
impacts that cannot be substantially lessened or avoided, the lead agency, before
approving the project as mitigated, must first determine, with respect to such impacts,
whether there remain any project alternatives that are both environmentally superior and
feasible within the meaning of CEQA. In addition to the proposed project, Alternative C1
(Reach 4B1 at 475 cfs, New Pumping Plant Recapture), DWR considered a No-Action (No-Project) Alternative and five other action alternatives in the Draft PEIS/R (see Table 2-1 for a summary comparison of program- and project-level actions included in each action alternative). Chapter 2.0, “Descriptions of Alternatives,” in the Draft PEIS/R describes each alternative in detail, and Section 2.2.2, “Alternatives,” in this document summarizes each alternative. Each action alternative would achieve implementation of the Settlement and contribute to the success of the restoration and water management goals to varying degrees. A summary comparison of the long-term environmental benefits to be gained, or adverse impacts to be avoided, among all alternatives is provided in Section 27.5, “Environmentally Preferable/Superior Alternative,” of the Draft PEIS/R, as well as in Tables ES-8 and 27-1 in the Draft PEIS/R.

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

**No-Action Alternative**

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

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

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

DWR rejects the No-Action Alternative because it would not achieve implementation of the Settlement or contribute to the success of the Restoration and Water Management goals.
Alternative A1—Reach 4B1 at 475 cfs, Delta Recapture

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

Facts in Support of the Decision to Reject Alternative A1

Alternative A1 would achieve implementation of the Settlement. Alternative A1 and the proposed project, Alternative C1, would both contribute equally to the success of the Restoration Goal.

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

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

- Impact GRW-4: Change in Groundwater Levels in CVP/SWP Water Service Areas—Project-Level
- Impact GRW-5: Change in Groundwater Quality in CVP/SWP Water Service Areas—Project-Level
- Impact LUP-8: Substantial Diminishment of Agricultural Land Resource Quality and Importance because of Altered Water Deliveries—Project-Level
• Impact UTL-11: Potential for Insufficient Existing Water Supply and Resources—Project-Level

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

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

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

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

**Facts in Support of the Decision to Reject Alternative A2**

Alternative A2 would achieve implementation of the Settlement.

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

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

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

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

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

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

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

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

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

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

Alternative B2 would improve on Alternative A1 in terms of contributing to the success
of the Water Management Goal, by adding recapture using existing facilities downstream
of the Restoration Area and reducing impacts related to water supply (see “Alternative
A1, Reach 4B1 at 475 cfs, Delta Recapture,” above for a summary of these water supply impacts). Alternative C1, however, would provide additional flexibility over Alternative B2 by allowing for new pumping infrastructure downstream of the Restoration Area, which would better contribute to the success of the Water Management Goal as well as further minimize impacts related to water supply that would result from Alternative B2. Consequently, Alternative C1 would be superior to Alternative B2 with respect to contributing to the success of the Water Management Goal and reducing significant and unavoidable direct, indirect, and cumulative impacts related to water supplies, as identified above.

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

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

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

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

**Facts in Support of the Decision to Reject Alternative C2** Alternative C2 would achieve implementation of the Settlement. Alternative C2 and the proposed project,
Alternative C1, would both contribute equally to the success of the Water Management Goal.

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

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

### 2.4 Summary of Findings

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

- a. Changes or alterations have been required in, or incorporated into, the project that would avoid or substantially lessen the significant environmental effects on the environment.

- b. Those changes or alterations would be wholly or partially within the responsibility and jurisdiction of another public agency and have been, or could and should be, adopted by that other public agency.

- c. Specific economic, social, technological, or other considerations make infeasible the mitigation measures or alternatives identified in the PEIS/R that would
2.0 Findings

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

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

a. All significant effects on the environment resulting from approval of the project would be eliminated or substantially lessened, where feasible.

b. Any remaining significant effects on the environment found unavoidable would be acceptable because of the factors described in Section 3.0, “Statement of Overriding Considerations,” in this document.

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

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

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

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

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

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
### 7.0 Climate Change

**Mitigation Measure:** 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) *Technical Advisory on CEQA and Climate Change* (2008), and the SJVAPCD Guidance document (SJVAPCD 2009).

**Timing/Schedule:** During project-level planning, design, and permitting

**Implementation Responsibility:** Reclamation

### 8.0 Cultural Resources

**Mitigation Measure:** 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.

**Timing/Schedule:** Pre-construction (prior to ground-disturbing construction activities)

**Implementation Responsibility:** Reclamation
<table>
<thead>
<tr>
<th>Mitigation Number</th>
<th>Mitigation Measure</th>
<th>Timing/ Schedule</th>
<th>Implementation Responsibility</th>
<th>Completion of Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.0 Land Use</td>
<td></td>
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<tr>
<td>LUP-4 Project</td>
<td>Implement Vehicular Traffic Detour Planning.</td>
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<td>Reclamation</td>
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<td></td>
<td>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.</td>
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<tr>
<td>LUP-5 Project</td>
<td>Preserve Agricultural Productivity of Important Farmland to Minimize Effects of Inundation and Saturation Effects.</td>
<td></td>
<td>Reclamation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>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:</td>
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<td>- 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. 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.</td>
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<tr>
<td>Mitigation Number</td>
<td>Mitigation Measure</td>
<td>Timing/ Schedule</td>
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<tr>
<td>20.0 Public Health and Hazardous Materials</td>
<td>Coordinate with and Support Vector Control District(s).</td>
<td>Before and during release of Interim and Restoration flows; during pre-construction (prior to ground-disturbing construction activities); and during construction</td>
<td>Reclamation</td>
<td></td>
</tr>
<tr>
<td>Mitigation Number</td>
<td>Mitigation Measure</td>
<td>Timing/ Schedule</td>
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| 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 | Within 1 year of the signing of the Record of Decision with implementation during Interim and Restoration flow releases | Reclamation |                             |
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:

- 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

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.

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.
### Mitigation and Infrastructure

#### 23.0 Transportation and Infrastructure

<table>
<thead>
<tr>
<th>Mitigation Number</th>
<th>Mitigation Measure</th>
<th>Timing/ Schedule</th>
<th>Implementation Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN-7 Project</td>
<td>Implement Vehicular Traffic Detour Planning.</td>
<td>Within 1 year of the signing of the Record of Decision; during project-level planning, design, and permitting; and during construction</td>
<td>Reclamation</td>
</tr>
</tbody>
</table>

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 in all areas expected to experience expanded recreation activity.

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.

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...
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.

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:

- Watering
- Uniform layer of washed gravel
- Chemical/organic dust stabilizers/suppressants in accordance with the manufacturer’s specifications
- Roadmix
- Paving

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.