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

**DIVISION OF WATER RIGHTS**

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

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

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SOURCE: San Joaquin River

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

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**ORDER APPROVING CHANGE AND INSTREAM FLOW DEDICATION**

BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

## 1. BACKGROUND

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

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

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

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

## 2. PETITIONS

On May 9, 2012, Reclamation submitted petitions for change pursuant to Water Code sections 1700 and 1707 for the above-referenced water right permits. The petitions request authorization to change the method of operation of the Friant Division of the Central Valley Project (CVP) in order to implement the provisions of the Settlement and the Settlement Act. Reclamation seeks to (1) add points of 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 rediverted 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 rediverted at and near Mendota Dam for delivery through various canals and to flow through Mendota Dam. Water would also be rediverted into the Arroyo Canal and would flow past Sack Dam and would also be conveyed through the Sand Slough Control Structure to and through the Eastside Bypass. Water in the Eastside Bypass would thence flow through the Mariposa Bypass and thence the San Joaquin River and would also continue to flow through the Eastside Bypass to Bear Creek. Water would be re-diverted along the Eastside Bypass at designated locations both north and south of the Mariposa Bypass. Water in Bear Creek would thence continue to flow into the San Joaquin River. Once additional channel improvements are made, water would also flow past Sack Dam and continue in the San Joaquin River channel.

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

In addition to rediverting water into various canals downstream of Friant Dam, Reclamation plans to redivert 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, SLDMWA[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, Pikalok Farming, Bowles Farming Company, Inc., Nickel Family LLC, and Wolfsen Land and Cattle Company, Inc. (Wolfsen). The response to the Exchange Contractors constitutes the response to the other joined parties, with the exception of Wolfsen. Wolfsen filed supplemental comments not included in the Exchange Contractors protest and these were separately evaluated.

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

### *A. SLDMWA Protest*

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

### *B. Exchange Contractors Protest*

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

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

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

*C. Persons Joining in Exchange Contractors Protest*

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

*D. SJTA Protest*

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

*E. Paramount*

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

*F. Wolfsen*

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

*Protest Assertion 1:*

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

Wolfsen does not provide any support for a right to 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

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

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

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

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

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

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

*Protest Assertion 2:*

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

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

[4] The State of California, Department of Finance.

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

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

*Protest Assertion 3:*

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

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

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

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

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

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

## 4. CRITERIA FOR APPROVING THE PROPOSED CHANGE

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

a. The proposed change will not increase the amount of water Reclamation is entitled to use.

b. The proposed change will not unreasonably affect any legal user of water.

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

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

### A. No Injury to Any Legal User of Water

In the petitions, Reclamation addressed whether there would be any legal injury to downstream prior right and riparian right holders, San Joaquin River Holding Contractors (Holding Contractors), Exchange Contractors and other Water Rights Settlement Contractors, Friant Division CVP Water Service Contractors, CVP and SWP Contractors including South-of-Delta Water Service Contractors, Eastside Division Water Service Contractors or Water Users on Eastside Tributaries, in-Delta 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 Milllerton Reservoir would be in addition to that quantity of releases otherwise required under the San Joaquin River Holding Contracts to maintain the 5 cfs requirement at Gravelly Ford and would not interfere with the ability of landowners from Friant Dam to Gravelly Ford to exercise existing riparian or overlying rights. Reclamation estimates that up to 230 cfs of flow is needed to maintain the 5 cfs flow requirement at Gravelly Ford. (Table 2-4 of DPEIS/R.)

#### 2. Exchange Contractors

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

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

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

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

### 3. Friant Division CVP Water Service Contractors

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

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

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

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

### 5. Downstream Prior Right and Riparian Right Holders

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

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

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

## B. No Increase in Entitlement

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

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

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

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

## 5. COMPLIANCE WITH CEQA

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

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

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

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

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

1. Direct diversion of flows originating downstream of Friant Dam is not authorized. Only water available at Friant Dam may be dedicated for preservation of fish and wildlife pursuant to Water Code section 1707 and subsequently utilized downstream of the dam at the authorized locations.

2. Any San Joaquin River Settlement Restoration Flows or Interim Flows that are recaptured and stored or routed through San Luis Reservoir shall be used consistent with the Settlement and Settlement Act. The water need not be delivered back to the Friant Division Contractors, but may be made available to others through transfers, exchanges and sales. Reclamation shall document that it has taken all practicable measures to provide contract water to the Friant Division Contractors, while complying with all other conditions of this water right.

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

3. The SJRRP flows dedicated for the purpose of preservation and enhancement of fish and wildlife resources are in addition to that quantity of releases otherwise required to maintain the 5 cubic feet per second (cfs) requirement at Gravelly Ford and that would be sufficient to provide necessary flow in the river reach from Friant Dam to Gravelly Ford pursuant to the obligations of the Holding Contracts executed by Reclamation.

4. Reclamation shall dedicate water to instream beneficial uses to the extent possible in compliance with this Order and the terms and conditions of the Settlement and Settlement Act. Release volumes shall be in accordance with the water-year type allocation made using either the Restoration Flow schedules included in Exhibit B of the Settlement, or a more continuous hydrograph as listed below. (DPEIS/R, Figures 2-5 and 2-6) Release rates shall be in accordance with the schedule for release volumes of Interim and Restoration flows, also as listed below, subject to the additional releases called for in Paragraph 13 and Exhibit B of the Settlement, as described below (DPEIS/R, Table 2-4).

| Figure 2-6 from DPEIS/R<br>Continuous Annual Restoration Flow in Thousand Acre-feet (TAF) | | | |
|---|---|---|---|
| Forecasted Water Year | Annual Flow | Continuous-Line Annual | Restoration Year Type |
| Inflow below Friant Dam (TAF) | Allocation (TAF)[1] | Flow Allocation (TAF) | |
| | | | |
| Less than 400 | 116.7 | 116.9 | Critical-Low |
| Greater than 400 to 670 | 187.5 | 187.8 | Critical-High |
| Greater than 670 to 930 | 300.8 | 272.3 to 330.3 | Dry |
| Greater than 930 to 1,450 | 364.6 | Greater than 330.3 to 400.3 | Normal-Dry |
| Greater than 1,450 to 2,500 | 473.0 | Greater than 400.3 to 574.4 | Normal-Wet |
| Greater than 2,500 | 672.3 | 673.5 | Wet |
| [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

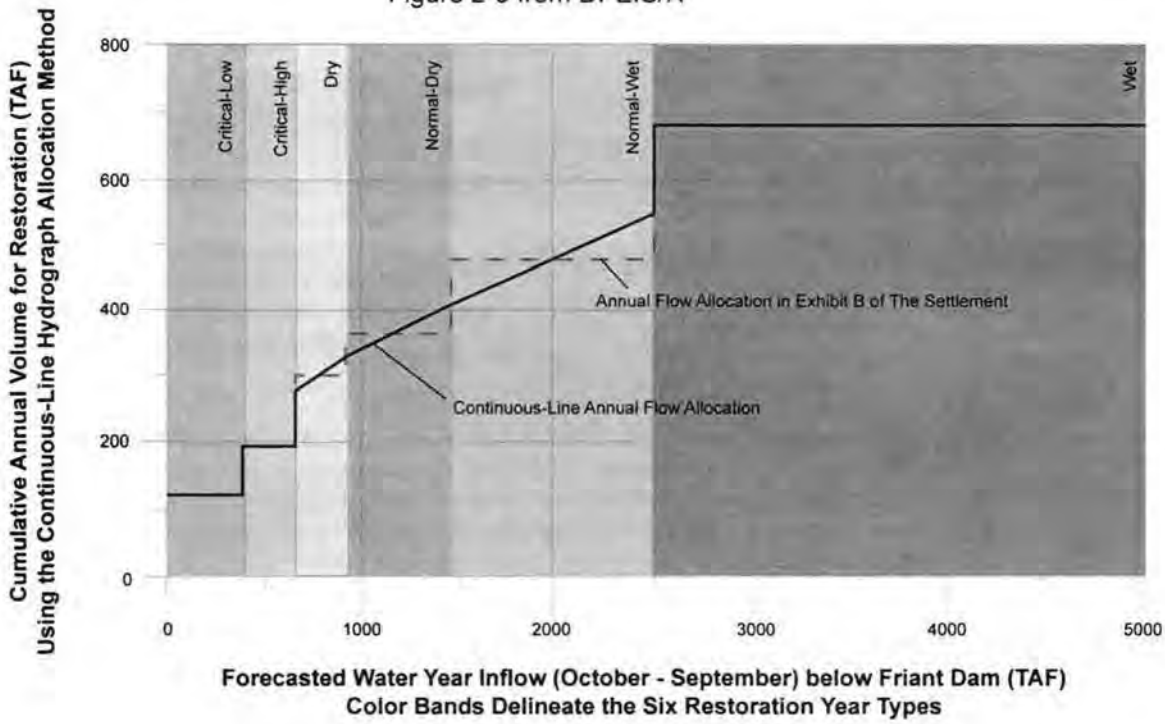


Table 2-4 from Draft PEIS/R.
Estimated Maximum Water Available for Instream Flow Dedication
Under Action Alternatives

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

Notes:

1 Under existing conditions, Friant Dam releases include water for riparian water right holders in Reach 1 under "holding contracts." The amounts in the table are approximate based on recent historical deliveries, as provided in Exhibit B of the Settlement. Water for riparian water right holders under "holding contracts" would not be eligible for recapture.

2 Total eligible for recapture is a maximum potential total, and does not account for anticipated losses to seepage or other unanticipated losses.

3 Paragraph 13(c) of the Settlement requires the acquisition of purchased water to overcome seepage losses not anticipated in Exhibit B. These Paragraph 13(c) releases are available for instream flow dedication starting from Friant Dam; however, because these potential releases would only be made to overcome seepage, this water would not be available for instream flow dedication downstream of Reach 5.

5. For purposes of tracking protected instream flows, Reclamation shall monitor river stage and flow conditions at the following locations during all periods when SJRRP flows are likely to be flowing at those locations:

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

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

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

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

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

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

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

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

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

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

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

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

   a. A seepage hotline call is reported.

   b. A monitoring well crosses a threshold.

   c. An operational change or constraint arises from the daily coordination call; or

   d. A flow change is made.

9. Seepage will be monitored for at least five years from implementation of full SJRRP flows, defined as the maximum flow volume and rate as set forth in Exhibit B of the Settlement, subject to discontinuation as provided for in this condition, and Reclamation shall submit an annual report with its electronic report of water diversion and use covering the previous water year describing: (a) the stream reach where any modifications to SJRRP flows were made to address seepage issues, (b) the flow modification, and (c) whether construction measures or other actions have been taken, or will be taken (and the time schedule for implementation) to address the problem. If the fourth and fifth annual reports indicate that no monitoring wells have crossed the identified threshold during the reporting period, and the water year classification was normal or better during this time period, the monitoring program may be discontinued.

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

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

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

10. SJRRP flows shall not exceed the channel capacities identified in DEIS/R Table 11-1 – Design Capacities of San Joaquin River and Bypasses within the Restoration Area and in the USACE 2003 San Joaquin River Mainstem, California Reconnaissance Report Sacramento District, but are subject to periodic update. (Final PEIS/R, p. 4-216, Table 11-1.) Reclamation shall also operate in accordance with the Seepage Monitoring and Management Plan. In the event of a conflict between these two requirements, the most restrictive channel flow shall prevail.

11. The Channel Capacity Advisory Group established and convened by Reclamation provides independent review of then-existing San Joaquin River estimated channel capacities that are determined and updated by Reclamation. (DPEIS/R, p. 2-24 to 2-25, and p. 11-43) Reclamation shall timely submit to the Deputy Director for Water Rights any revised channel capacity final informational report prepared in accordance with the process described on page 2-25 of the DPEIS/R. Thereafter, the updated channel capacity information may be utilized in lieu of previous channel capacity information.

12. In the event that SJRRP flows create seepage conditions, Reclamation shall reduce or redirect SJRRP flows to the last known flow volume that did not result in seepage conditions until Reclamation determines that increasing flows would not create seepage conditions (i.e., seepage is caused by an activity not related to the SJRRP flows). Recognizing that many factors contribute to groundwater elevations, Reclamation shall manage SJRRP flows to avoid exceeding a seepage action threshold to the extent possible.

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

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

14. The authorization to release and to dedicate SJRRP flows for instream use at Friant Dam shall not be construed as authorizing any act that results in damage that could result in imminent failure to: (a) private levees located along the San Joaquin River, (b) facilities, including levees and related structures, which are part of the San Joaquin River Flood Control Project, (c) Mendota Dam, (d) bifurcation structure at Chowchilla Bypass, (e) Sand Slough control structure, or (f) headworks of Mariposa Bypass. Reclamation shall be responsible for operating the SJRRP in a way that does not result in such damage.

15. Release and dedication of SJRRP flows for instream use at Friant Dam shall be managed to avoid interference with operations of the Lower San Joaquin River Flood Control Project.

16. Until the features of the SJRRP program are fully implemented, Reclamation shall annually consult with the Central Valley Flood Protection Board, Lower San Joaquin Levee District, DWR, or any other appropriate agency to ensure that the proposed flows will not compromise the flood safety features of the San Joaquin River and Eastside and Mariposa Bypasses. A finding by an agency with regulatory oversight on flood control that the full SJRRP flows will not compromise the flood safety features may substitute for annual consultation. Reclamation shall provide information on the consultation to the Deputy Director for Water Rights with the electronic annual report of water diversion and use, until compliance is achieved and shall document achievement of compliance in the appropriate electronic annual report of water diversion and use.

17. Approval of the SJRRP petitions shall not modify or amend the rights and obligations of the parties to: (a) the San Joaquin River Exchange Contract, Ilr-1144, as amended February 14, 1968, and (b) contracts executed as of the date of this amended permit incorporating approval of the SJRRP petitions, between the United States and various contracting entities providing for adjustment and settlement of certain claimed water rights in and to the use of the San Joaquin River to satisfy obligations of the United States under Schedule 1 and Schedule 2, respectively, of the Contract for Purchase of Miller and Lux Water Rights (Contract Ilr-1145, dated July 27, 1939). Nothing herein changes Reclamation's obligations with respect to the Exchange Contractors or with respect to obligations under Schedule 2 of Contract Ilr-1145.

18. Pumping and conveyance of SJRRP flows under Permits 11885, 11886 and 11887 and License 1986 by or through CVP and SWP facilities: (1) shall be consistent with all applicable provisions of law (including the Agreement of November 24, 1986, between the United States of America and the Department of Water Resources of the State of California for the coordinated operation of the CVP and the SWP as authorized by Congress in section 2(d) of the Act of August 26, 1937 (50 Stat. 850, 100 Stat. 3051)), or any successor agreement, and (2) is limited to pumping and conveyance that is available at the C.W. Jones Pumping Plant, at the Harvey O. Banks Pumping Plant, in the Delta-Mendota Canal or in the California Aqueduct, after satisfying the Secretary's obligation to make CVP water (other than the SJRRP Flows) and water acquired through the transfer agreements available to existing south-of-Delta CVP contractors.

19. Pumping of SJRRP flows at the Jones Pumping Plant and the Banks Pumping Plant is subject to compliance by the operators with the objectives currently required of Reclamation or DWR set forth in Tables 1, 2, and 3 on pages 181 to 187 of State Water Board Revised Decision 1641 (D-1641), or any future State Water Board order or decision implementing Bay-Delta water quality objectives at those plants, including compliance with the various plans required under D-1641 as prerequisites for the use of the Joint Points of Diversion by Reclamation and DWR. Pumping of SJRRP flows at the Jones Pumping Plant and the Banks Pumping Plant is also subject to compliance by the operators with all applicable biological opinions and any court orders applicable to these operations.

20. Reclamation shall include the following information in its electronic annual report of water diversion and use to the State Water Board: documentation for each individual water right of

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

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

21. Reclamation shall implement the Mendota Pool Water Quality Plan dated February 1, 2011 (2011 Plan) until such time as the Deputy Director for Water Rights determines that the 2011 Plan is no longer needed (for example, after the Mendota Pool Bypass called for in Paragraph 11(a)(1) of the Settlement is constructed and operational). Reclamation shall submit any changes to the 2011 Plan in writing to the Deputy Director for Water Rights for review, modification and approval. Reclamation shall also submit any recommendation for elimination of the 2011 plan in writing to the Deputy Director for Water Rights for approval. Unless the Deputy Director for Water Rights objects in writing to a requested change or recommended elimination within 30 days of notification, the request is approved.

22. Reclamation shall monitor temperature in Millerton Reservoir as needed for the purpose of determining the availability of cold water for fishery purposes. Consistent with the Settlement and Settlement Act, Reclamation shall coordinate its SJRRP releases of the available cold-water pool made at Friant Dam for instream flow dedication with USFWS, NMFS, DFW and DWR to maximize benefits to fishery resources. Consistent with the Settlement and Settlement Act, Reclamation shall also coordinate the ramping of SJRRP releases made at Friant Dam for instream flow dedication with USFWS, NMFS, DFW and DWR to protect fishery resources.

23. Consistent with the Settlement and Settlement Act, Reclamation shall coordinate any flow modifications with the USFWS and NMFS, as applicable. Recapture of water dedicated for instream flow shall be in compliance with the USFWS and NMFS biological opinions.

24. Reclamation shall implement the Conservation Measures for Biological Resources that May Be Affected by Settlement Actions as described in Table 2-7 (p. 4-135 through p. 4-159) of the Final PEIS/R, in accordance with the schedule found therein, only for those items identified as "project level". Reclamation shall document completion of the mitigation measures within its electronic report of water diversion and use filed with the Division of Water Rights. Reclamation shall inform the Division of Water Rights once specific mitigation measures have been completed, and eliminate those measures from future reporting.

25. Reclamation shall prepare and submit an Annual Work Plan consistent with section 6.2 of the ROD.

26. The State Water Board's authorization for releases and dedication of SJRRP flows at Friant Dam and the conditions specified thereof, including authorized releases for dedication of flows at Friant Dam and levels and timing of flows in reaches of the San Joaquin River and Bypass System, are provided solely for the purpose of implementing the Settlement and Settlement Act. The State Water Board has not imposed any water quality flow standards on the upper mainstem San Joaquin River in the stream reach covered by the SJRRP petitions; any future adoption of such standards would have to be accomplished in compliance with all applicable laws. Nothing in this order determines or predetermines whether or not the Board would find the SJRRP Flows sufficient to satisfy potential future water quality standards or any other instream beneficial use requirement.

27. Nothing in this water right authorizes the use of, or access to, any lands or facilities not owned by Reclamation. Reclamation is solely responsible for obtaining any necessary access agreements.

28. Reclamation shall comply with the Steelhead Monitoring Plan in Appendix B to the Final PEIS/R.

29. Reclamation shall continue to implement the recreation outreach plan developed for the water year 2012 Interim Flows Project.

30. To the extent practicable, given operational constraints and other factors, Reclamation shall provide notice to Paramount of determination of the expected presence of flows in Reach 2B below the Chowchilla Bifurcation Structure in excess of flows needed to satisfy CVP purposes within 24 hours of determining that such flows are: (a) present at Friant Dam, and (b) no longer present at Friant Dam. Flows at Friant Dam are subject to conveyance and other losses prior to entering Reach 2B. For description and location of Reach 2B, see Fig. 1-2 of DPEIS/R; Fig. ES-2 and p. 17 of DPEIS/R Executive Summary.

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

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

STATE WATER RESOURCES CONTROL BOARD

*Barbara Evoy, Deputy Director*
*Division of Water Rights*

Dated: OCT 2 1 2013

Attachment 1: State Water Board Certification, Findings of Fact and Statement of Overriding Consideration for the SJRRP PEIS/R.

Attachment 2: DWR Certification, Findings of Fact and Statement of Overriding Considerations for the SJRRP, PEIS/R

Attachment 3: State Water Board Mitigation Monitoring and Reporting Program.

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

**DIVISION OF WATER RIGHTS**

# RIGHT TO DIVERT AND USE WATER

APPLICATION 234 PERMIT 11885

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

The State Water Resources Control Board (State Water Board) authorizes the diversion and use of water by the right holder in accordance with the limitations and conditions herein SUBJECT TO PRIOR RIGHTS. The priority of this right dates from **January 19, 1916**. This right is issued in accordance with the State Water Board delegation of authority to the Deputy Director for Water Rights (Resolution 2012-0029) and the Deputy Director for Water Rights redelegation of authority dated July 6, 2012. This right supercedes any previously issued right on **Application 234**.

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

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

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

**1.** Source of water: **San Joaquin River**

tributary to: **Suisun Bay**

within the Counties of Madera and Fresno

2. Location of point of diversion

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

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

| | | | | | |
|---|---|---|---|---|---|
| North 1,745,375 feet and East 6,598,943 feet | | | | | |
| Canal Intakes Off Mendota Dam:<br>a. Main Canal – North 1,744,396 feet and East 6,598,937 feet | NE ¼ | 19 | 13S | 15E | MD |
| b. Outside Canal – North 1,741,896 feet and East 6,599,689 feet | SE ¼ | 19 | 13S | 15E | MD |
| c. Columbia Canal – North 1,746,420 feet and East 6,605,595 feet | NE ¼ | 20 | 13S | 15E | MD |
| d. Columbia Canal Co. – Mowry Inlet at Mendota Pool: Zone 4, North 2,171,207 feet and East 6,167,526 feet | SW ¼ | 21 | 13S | 15E | MD |
| e. Helm Ditch – North 1,745,022 feet and East 6,598,787 feet | NE ¼ | 19 | 13S | 15E | MD |
| f. Firebaugh Water District Canal – North 1,741,821 feet and East 6,599,844 feet | SE ¼ | 19 | 13S | 15E | MD |
| Intake to Arroyo Canal: North 1,816,307 feet and East 6,561,446 feet | SW ¼ | 12 | 11S | 13E | MD |
| Intake to Sand Slough Control Structure: North 1,862,535 feet and East 6,535,468 feet | NE ¼ | 31 | 9S | 13E | MD |
| Along East Side Bypass at Lone Tree Unit, Merced National Wildlife Refuge: North 1,883,703 feet and East 6,523,784 feet | NW ¼ | 11 | 9S | 12E | MD |
| Intake to Mariposa Bypass Control Structure, on Eastside Bypass: North 1,895,936 feet and East 6,505,198 feet | SE ¼ | 30 | 8S | 12E | MD |
| Along Eastside Bypass at East Bear Creek Unit, San Luis National Wildlife Refuge: North 1,914,452 feet and East 6,480,299 feet | NE ¼ | 8 | 8S | 11E | MD |
| Jones Pumping Plant : North 2,114,400 feet and East 6,248,073 feet | SW ¼ of SW ¼ | 31 | 1S | 4E | MD |
| Banks Pumping Plant: North 2,115,990 feet and East 6,237,838 feet | SW ¼ | 35 | 1S | 3E | MD |

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

* The points of rediversion are for: (a) water released from storage or (b) water previously diverted at Friant Dam that remains under the dominion and control of Reclamation from Friant Dam to the points of rediversion pursuant to Water Code section 1707.

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

| By California Coordinate System of 1983 in Zone 3 | 40-acre subdivision of public land survey or projection thereof | Section (Projected) * | Township | Range | Base and Meridian |
|---|---|---|---|---|---|
| **Place of Storage:** **Millerton Lake:** **North 1,824,400 feet and East 6,793,175 feet** | **NW¼ of SW¼** | **5** | **11S** | **21E** | **MD** |

Place of storage shown on Map 214-212-46, filed with the State Water Board.

| 3. Purposes of use | 4. Place of use | Section (Projected) * | Township | Range | Base and Meridian | Acres |
|---|---|---|---|---|---|---|
| **Municipal, Domestic, Irrigation, Incidental Domestic, Stockwatering, Preservation and Enhancement of Fish and Wildlife, Recreational** | **Gross area of 5,431,000 acres as shown on Maps 214-212-37, 214-208-3331, 1785-202-14 and 1785-202-50.** | | | | | |
| **Preservation and Enhancement of Fish and Wildlife,** **Recreational** | **San Joaquin River and designated bypass system from Friant Dam to the Sacramento-San Joaquin River Delta (Delta) and through the Delta Channels to the Jones and Banks Pumping Plants, as shown on Map 1785-202-50.** | | | | | |
| **Recreational, Stockwatering** | **Millerton Reservoir:** **NW ¼ of SW ¼** | **5** | **11S** | **21E** | **MD** | |

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

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

5. The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed **3,000 cubic feet per second** by direct diversion, to be diverted from about **February 1 to about October 31** of each year; and **500,000 acre-feet per annum** by storage to be collected from about **November 1 of each year to about August 1** of the succeeding year. The maximum annual diversion shall not exceed **2,124,487 acre-feet per annum**.

(0000005)

The total quantity of water to be appropriated by direct diversion under water rights issued pursuant to Applications 234, 1465 and 5638 shall not exceed **6,500 cubic feet per second.**

(0000114)

This permit does not authorize collection of water to storage outside the specified season to offset evaporation and seepage or for any other purpose.

(0000005)

6. Construction work shall be completed on or before December 1, 1985.

(0000008)

7. Complete application of the water to the proposed use shall be made on or before December 1, 1990.

(0000009)

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

9. Reclamation shall maintain daily records of inflow into and outflow from and releases from Millerton Lake, volumes in storage and water surface elevations and shall provide and maintain such measuring facilities as may be necessary for the formulation of said records. Reclamation shall make said records of inflow, outflow, releases, volumes in storage and water surface elevations available to the State Water Board and shall allow authorized representatives of said Board access to its project works and properties for the purpose of securing supplemental information.

10. Subject to the existence of long-term water delivery contracts between the United States and public agencies and subject to the compliance with the provisions of said contracts by said public agencies, this water right is further conditioned as follows:

(a) The right to the beneficial use of water for irrigation purposes, except where water is distributed to the general public by a private agency in charge of a public use, shall be appurtenant to the land on which said water shall be applied, subject to continued beneficial use and 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 and further subject to the right to dispose of a temporary surplus.

(b) The right to the beneficial use of water for irrigation purposes shall, consistent with other terms of the right, continue in perpetuity.

11. The State Water Board retains continuing jurisdiction for such period as may be necessary for the purpose of conforming this water right with the provisions of the final judgment in Rank v. Krug, No. 685-ND, United States District Court, Southern District of California, Northern Division (now the Eastern District of California).

12. Upon the request of the Board, Reclamation shall make such measurements and maintain and furnish to the Board such records and information as may be necessary to determine compliance with the terms and conditions of this water right, including the recognition of vested rights and for the further purpose of determining the quantities of water placed to beneficial use under this right, both by direct diversion and storage.

(0100300)

13. Reclamation shall ensure that the water quality objectives for municipal and industrial beneficial uses and agricultural beneficial uses for the western Delta, interior Delta and export area as set forth in Tables 1 and 2, attached, are met on an interim basis until the Board adopts a further decision assigning responsibility for meeting these objectives. The condition, as written in Order WR 2001-05, states that unless it is renewed pursuant to a further order after notice and opportunity for hearing, this condition shall expire no later than one year after the DWR or the Reclamation requests in writing that the State Water Board convene a water right proceeding to determine whether to replace this condition with another condition that meets the objectives in Tables 1 and 2. Any extension hearing shall be for the limited purpose of determining whether additional time is necessary, and shall not include consideration of changes in allocation of responsibility. The State Water Board shall expedite any proceeding it conducts to assign long term responsibility to meet the objectives in Tables 1 and 2, in an effort to keep the proceeding under two years. This condition does not mandate that Reclamation use water under this permit if it uses other sources of water or other means to meet this condition. Order WR 2002-0012 states this condition of Order 2001-05 remains in full force and effect.

14. Reclamation shall ensure that the water quality objectives for Delta outflow and for Sacramento River flow at Rio Vista for fish and wildlife beneficial uses as set forth in Table 3, attached, are met on an interim basis, until the Board adopts a further decision in the Bay-Delta Water Rights Hearing assigning responsibility for meeting these objectives. The condition, as written in Order WR 2001-05, states that unless it is renewed pursuant to a further order after notice and an opportunity for hearing, this condition shall expire no later than one year after the DWR or Reclamation requests in writing that the State Water Board convene a water right proceeding to determine whether to replace this condition with another condition that meets the objectives in Table 3. Any extension hearing shall be for the limited purpose of determining whether additional time is necessary, and shall not include consideration of changes in allocation of responsibility. The State Water Board shall expedite any proceeding it conducts to assign long term responsibility to meet the objectives in Table 3, in an effort to keep the proceeding under two years. This condition does not mandate that Reclamation use water under this permit if it uses other sources of water or other means to meet this condition. Order WR 2002-0012 states this condition of Order 2001-05 remains in full force and effect.

15. Reclamation shall implement the water quality compliance and baseline monitoring plan set forth in Table 5 on an interim basis, including construction, maintenance and operation of all necessary devices, until the Board adopts a further decision in the Bay-Delta Water Rights Hearing assigning responsibility for meeting the requirements in Table 5.

16. Reclamation shall:

a. In consultation with the USFWS, DFW, San Joaquin River Group Authority (SJRGA), City and County of San Francisco (CCSF) and CVP/SWP Export Interests, prepare a fishery monitoring plan for the Vernalis Adaptive Management Plan (VAMP) experiment consistent with the San Joaquin River Agreement (SJRA) and with the findings in Decision 1641. The plan shall specify study objectives,

sampling locations, methodology, and sampling periods. The monitoring plan shall be submitted to the Executive Director of the State Water Board for approval by May 14, 2000.

b. Conduct the fishery monitoring studies according to the monitoring plan for the duration of the VAMP/SJRA study period, and submit results to the Executive Director of the State Water Board on an annual basis. A monitoring report summarizing the study methodology and results from each year's experiment shall be submitted to the Executive Director of the State Water Board by December 31 of each year. A final report shall be submitted to the Executive Director of the State Water Board no later than eight months following completion of the VAMP experiment.

17. To ensure compliance with the water quality objectives as set forth in conditions 13 and 14 of this amended permit, to identify meaningful changes in any significant water quality parameters potentially related to operation of the SWP or the CVP, and to reveal trends in ecological changes potentially related to project operations, Reclamation shall, independently or in cooperation with other agencies or individuals:

a. Perform the Water Quality and Baseline Monitoring program described in Table 5 and in Figure 4.

b. Conduct ongoing and future monitoring surveys as recommended by the DFW, the USFWS or the NMFS, and acceptable to the Executive Director of the State Water Board concerning food chain relationships, fisheries impacts, or impacts to brackish tidal marshes, as they are affected by operations of the SWP or the CVP in the Delta and Suisun Marsh.

c. Reclamation shall make available to the State Water Board and other interested parties the results of the above monitoring as soon as practicable. Timely posting of this information on the Internet will satisfy this requirement. Reclamation shall submit to the Executive Director of the State Water Board, by December 1 of each year, annual reports summarizing the previous calendar year's findings and detailing future study plans.

d. If Reclamation anticipates violations of the water quality objectives or if such violations have occurred, Reclamation shall provide immediate written notification to the Executive Director of the State Water Board.

e. Reclamation shall evaluate the Water Quality Compliance and Baseline Monitoring once every three years to ensure that the goals of the monitoring program are attained. Reclamation shall report to the Executive Director of the State Water Board the conclusions based upon this evaluation. Reclamation may propose appropriate modifications of the program for concurrence of the Executive Director of the State Water Board.

18. Upon request to and approval of the Executive Director of the State Water Board, variations in flow for experimental purposes for protection and enhancement of fish and wildlife may be allowed; provided, that such variations in flow do not cause violations of municipal, industrial and agricultural objectives in Tables 1 and 2.

19. For the protection of Suisun Marsh, Reclamation shall report to the State Water Board by September 30 of each year on progress toward implementation of mitigation facilities and on water quality conditions in the Suisun Marsh during the previous salinity control season.

20. This water right is conditioned upon implementation of the water quality objectives for agricultural beneficial uses in the southern Delta, as specified in Table 2, attached, at the following locations in the southern Delta:

a. San Joaquin River at Airport Way Bridge, Vernalis (Interagency Station No. C-10);

b. San Joaquin River at Brandt Bridge (Interagency Station No. C-6);

c. Old River near Middle River (Interagency Station No. C-8); and

d. Old River at Tracy Road Bridge (Interagency Station No. P-12).

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

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

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

21. Reclamation shall, at all times, meet the Vernalis water quality objectives for agricultural beneficial uses at Vernalis. Reclamation may meet these objectives through flows or other measures. Reclamation shall develop a program under which it will meet these objectives consistently. Reclamation shall conduct modeling and planning studies to evaluate the effectiveness of its program to meet the Vernalis water quality objectives. If, by December 29, 2004, Reclamation has not developed a program under which it will consistently achieve the Vernalis objectives, Reclamation shall report to the Executive Director of the State Water Board all actions it has taken in attempting to meet the objectives, including drainage and management alternatives. The Executive Director of the State Water Board will evaluate the report and will decide whether further action should be taken by the State Water Board to ensure that the objectives are met.

22. The State Water Board reserves continuing jurisdiction over this permit for the purpose of formulating or revising terms and conditions relative to flows to be maintained in the Delta for the protection of fish and wildlife.

(0000600)

23. The State Water Board reserves continuing jurisdiction over this water right for the purpose of formulating or revising terms and conditions relative to salinity control in the Sacramento-San Joaquin Delta.

(0000600)

24. The Board reserves continuing jurisdiction over this permit for the purpose of coordinating terms and conditions of the permit with terms and conditions which have been or which may be included in permits issued pursuant to applications of the United States in furtherance of the CVP and other applications of the State of California in furtherance of the SWP. At such time as DWR and Reclamation have entered into a coordinated operation agreement, the Board will review said agreement for the purpose of formulating and imposing such coordinated terms and conditions as may be appropriate. The Board, on its own motion or on the motion of any interested party, after hearing, may formulate and impose such coordinated terms and conditions as may be appropriate pending the execution of such agreement.

(0000600)

25. 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.

26. 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.

27. 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.

28. Reclamation shall dedicate water to instream beneficial uses to the extent possible in compliance with this Order and the terms and conditions of the Settlement and Settlement Act. Release volumes shall be in accordance with the water-year type allocation made using either the Restoration Flow schedules included in Exhibit B of the Settlement, or a more continuous hydrograph as listed below. (DPEIS/R, Figures 2-5 and 2-6) Release rates shall be in accordance with the schedule for release volumes of Interim and Restoration flows, also as listed below, subject to the additional releases called for in Paragraph 13 and Exhibit B of the Settlement, as described below (DPEIS/R, Table 2-4).

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

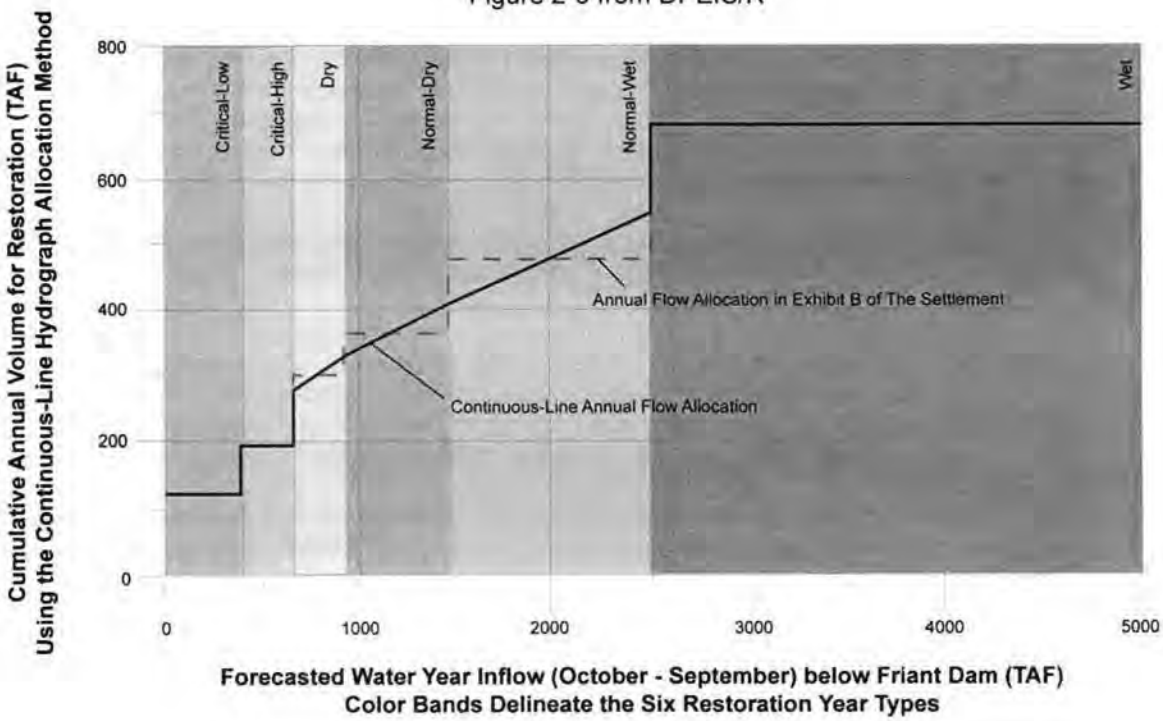



Table 2-4 from Draft PEIS/R.
Estimated Maximum Water Available for Instream Flow Dedication
Under Action Alternatives

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

Notes:

1 Under existing conditions, Friant Dam releases include water for riparian water right holders in Reach 1 under "holding contracts." The amounts in the table are approximate based on recent historical deliveries, as provided in Exhibit B of the Settlement. Water for riparian water right holders under "holding contracts" would not be eligible for recapture.

2 Total eligible for recapture is a maximum potential total, and does not account for anticipated losses to seepage or other unanticipated losses.

3 Paragraph 13(c) of the Settlement requires the acquisition of purchased water to overcome seepage losses not anticipated in Exhibit B. These Paragraph 13(c) releases are available for instream flow dedication starting from Friant Dam; however, because these potential releases would only be made to overcome seepage, this water would not be available for instream flow dedication downstream of Reach 5.

29. 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.

30. 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.

31. 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.

32. 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.

33. 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.

34. 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.

35. 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.

36. 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.

37. 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.

38. 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.

39. 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.

40. Until the features of the SJRRP program are fully implemented, Reclamation shall annually consult with the Central Valley Flood Protection Board, Lower San Joaquin Levee District, DWR, or any other appropriate agency to ensure that the proposed flows will not compromise the flood safety features of the San Joaquin River and Eastside and Mariposa Bypasses. A finding by an agency with regulatory oversight on flood control that the full SJRRP flows will not compromise the flood safety features may substitute for annual consultation. Reclamation shall provide information on the consultation to the Deputy Director for Water Rights with the electronic annual report of water diversion and use, until compliance is achieved and shall document achievement of compliance in the appropriate electronic annual report of water diversion and use.

41. Approval of the SJRRP petitions shall not modify or amend the rights and obligations of the parties to: (a) the San Joaquin River Exchange Contract, Ilr-1144, as amended February 14, 1968, and (b) contracts executed as of the date of this amended permit incorporating approval of the SJRRP petitions, between the United States and various contracting entities providing for adjustment and settlement of certain claimed water rights in and to the use of the San Joaquin River to satisfy obligations of the United States under Schedule 1 and Schedule 2, respectively, of the Contract for Purchase of Miller and Lux Water Rights (Contract Ilr-1145, dated July 27, 1939). Nothing herein changes Reclamation's obligations with respect to the Exchange Contractors or with respect to obligations under Schedule 2 of Contract Ilr-1145.

42. 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.

43. 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.

44. 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.

45. Reclamation shall implement the Mendota Pool Water Quality Plan dated February 1, 2011 (2011 Plan) until such time as the Deputy Director for Water Rights determines that the 2011 Plan is no longer needed (for example, after the Mendota Pool Bypass called for in Paragraph 11(a)(1) of the Settlement is constructed and operational). Reclamation shall submit any changes to the 2011 Plan in writing to the Deputy Director for Water Rights for review, modification and approval. Reclamation shall also submit any recommendation for elimination of the 2011 plan in writing to the Deputy Director for Water Rights for approval. Unless the Deputy Director for Water Rights objects in writing to a requested change or recommended elimination within 30 days of notification, the request is approved.

46. 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.

47. 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.

48. 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.

49. Reclamation shall prepare and submit an Annual Work Plan consistent with section 6.2 of the ROD.

50. 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.

51. 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.

52. Reclamation shall comply with the Steelhead Monitoring Plan in Appendix B to the Final PEIS/R.

53. Reclamation shall continue to implement the recreation outreach plan developed for the water year 2012 Interim Flows Project.

54. To the extent practicable, given operational constraints and other factors, Reclamation shall provide notice to Paramount of determination of the expected presence of flows in Reach 2B below the Chowchilla Bifurcation Structure in excess of flows needed to satisfy CVP purposes within 24 hours of determining that such flows are: (a) present at Friant Dam, and (b) no longer present at Friant Dam. Flows at Friant Dam are subject to conveyance and other losses prior to entering Reach 2B. For description and location of Reach 2B, see Fig. 1-2 of DPEIS/R; Fig. ES-2 and p. 17 of DPEIS/R Executive Summary.

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

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

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

A. Right holder is on notice that: (1) failure to timely commence or complete construction work or beneficial use of water with due diligence, (2) cessation or partial cessation of beneficial use of water, or (3) failure to observe any of the terms or conditions of this right, may be cause for the State Water Board to consider revocation (including partial revocation) of this right. (Cal. Code Regs., tit. 23, § 850.)
(0000016)

B. Right holder is on notice that when the State Water Board determines that any person is violating, or threatening to violate, any term or condition of a right, the State Water Board may issue an order to that person to cease and desist from that violation. (Wat. Code, § 1831.)
(0000017)

C. Right holder is not authorized to make any modifications to the location of diversion facilities, place of use or purposes of use, or make other changes to the project that do not conform with the terms and conditions of this right, prior to submitting a change petition and obtaining approval of the State Water Board.
(0000018)

D. Once the time to develop beneficial use of water ends under this permit, right holder is not authorized to increase diversions beyond the maximum annual amount diverted or used during the authorized development schedule prior to submitting a time extension petition and obtaining approval of the State Water Board.
(0000019)

E. Only the amount of water applied to beneficial use during the authorized diversion season, as determined by the State Water Board, shall be considered when issuing a license. (Wat. Code, § 1610.)
(0000006)

F. Right holder shall maintain records of the amount of water diverted and used under this right to enable the State Water Board to determine the amount of water that has been applied to beneficial use.
(0000015)

G. Right holder shall promptly submit any reports, data, or other information that may reasonably be required by the State Water Board, including but not limited to documentation of water diversion and use under this right and documentation of compliance with the terms and conditions of this right.
(0000010)

H. No water shall be diverted under this right unless right holder is operating in accordance with a compliance plan, satisfactory to the Deputy Director for Water Rights. Said compliance plan shall specify how right holder will comply with the terms and conditions of this right. Right holder shall comply with all reporting requirements in accordance with the schedule contained in the compliance plan.
(0000070)

I. Right holder shall grant, or secure authorization through right holder's right of access to property owned by another party, the staff of the State Water Board, and any other authorized representatives of the State Water Board the following:

1. Entry upon property where water is being diverted, stored or used under a right issued by the State Water Board or where monitoring, samples and/or records must be collected under the conditions of this right;

2. Access to copy any records at reasonable times that are kept under the terms and conditions of a right or other order issued by State Water Board;

3. Access to inspect at reasonable times any project covered by a right issued by the State Water Board, equipment (including monitoring and control equipment), practices, or operations regulated by or required under this right; and,

4. Access to photograph, sample, measure, and monitor at reasonable times for the purpose of ensuring compliance with a right or other order issued by State Water Board, or as otherwise authorized by the Water Code.

(0000011)

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

(0000022)

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

(0000025)

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

(0000212)

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

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

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

(0000203)

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

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

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

(0000029D)

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

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

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

(0000012)

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

(0000013)

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

(0000014)

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

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

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

STATE WATER RESOURCES CONTROL BOARD

James W. Kassel
for *Barbara Evoy, Deputy Director*
*Division of Water Rights*

Dated: OCT 21 2019

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

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

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

*[1] River Kilometer Index station number.*
*[2] The Sacramento Valley 40-30-30 water year hydrologic classification index (see Figure 1) applies for determinations of water year type.*
*[3] The Cache Slough objective to be effective only when water is being diverted from this location.*

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

| COMPLIANCE LOCATION | INTERAGENCY STATION NUMBER (RKI [1]) | PARAMETER | DESCRIPTION (UNIT) [2] | WATER YEAR TYPE [3] | TIME PERIOD | VALUE |
|---|---|---|---|---|---|---|
| ***WESTERN DELTA*** | | | | | | |
| *Sacramento River at Emmaton* | *D-22 (RSAC092)* | *Electrical Conductivity (EC)* | *Maximum 14-day running average of mean daily EC (mmhos/cm)* | | *0.45 EC April 1 to date shown* | *EC from date shown to Aug 15 [4]* |
| | | | | *W* | *Aug 15* | *—* |
| | | | | *AN* | *Jul 1* | *0.63* |
| | | | | *BN* | *Jun 20* | *1.14* |
| | | | | *D* | *Jun 15* | *1.67* |
| | | | | *C* | *—* | *2.78* |
| *San Joaquin River at Jersey Point* | *D-15\ (RSAN018)* | *Electrical Conductivity (EC)* | *Maximum 14-day running average of mean daily EC (mmhos/cm)* | | *0.45 EC April 1 to date shown* | *EC from date shown to Aug 15 [4]* |
| | | | | *W* | *Aug 15* | *—* |
| | | | | *AN* | *Aug 15* | *—* |
| | | | | *BN* | *Jun 20* | *0.74* |
| | | | | *D* | *Jun 15* | *1.35* |
| | | | | *C* | *—* | *2.20* |
| ***INTERIOR DELTA*** | | | | | | |
| *South Fork Mokelumne River at Terminous* | *C-13 (RSMKL08)* | *Electrical Conductivity (EC)* | *Maximum 14-day running average of mean daily EC (mmhos/cm)* | | *0.45 EC April 1 to date shown* | *EC from date shown to Aug 15 [4]* |
| | | | | *W* | *Aug 15* | *—* |
| | | | | *AN* | *Aug 15* | *—* |
| | | | | *BN* | *Aug 15* | *—* |
| | | | | *D* | *Aug 15* | *—* |
| | | | | *C* | *—* | *0.54* |
| *San Joaquin River at San Andreas Landing* | *C-4 (RSAN032)* | *Electrical Conductivity (EC)* | *Maximum 14-day running average of mean daily EC (mmhos/cm)* | | *0.45 EC April 1 to date shown* | *EC from date shown to Aug 15 [4]* |
| | | | | *W* | *Aug 15* | *—* |
| | | | | *AN* | *Aug 15* | *—* |
| | | | | *BN* | *Aug 15* | *—* |
| | | | | *D* | *Jun 25* | *0.58* |
| | | | | *C* | *—* | *0.87* |
| ***SOUTHERN DELTA*** | | | | | | |
| *San Joaquin River at Airport Way Bridge, Vernalis* | *C-10 (RSAN112)* | *Electrical Conductivity (EC)* | *Maximum 30-day running average of mean daily EC (mmhos/cm)* | *All* | *Apr-Aug* | *0.7* |
| | | | | | *Sep-Mar* | *1.0* |
| ***-and-*** | | | | | | |
| *San Joaquin River at Brandt Bridge site[5]* | *C-6 (RSAN073)* | | | | | |
| ***-and-*** | | | | | | |
| *Old River near Middle River [5]* | *C-8 (ROLD69)* | | | | | |
| ***-and-*** | | | | | | |
| *Old River at Tracy Road Bridge [5]* | *P-12 (ROLD59)* | | | | | |
| ***EXPORT AREA*** | | | | | | |
| *West Canal at mouth of Clifton Court Forebay* | *C-9 (CHWST0)* | *Electrical Conductivity (EC)* | *Maximum monthly average of mean daily EC (mmhos/cm)* | *All* | *Oct-Sep* | *1.0* |
| ***-and-*** | | | | | | |
| *Delta-Mendota Canal at Tracy Pumping Plant* | *DMC-1 (CHDMC004)* | | | | | |

*[1] River Kilometer Index station number*

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

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

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

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

## TABLE 3
## WATER QUALITY OBJECTIVES FOR FISH AND WILDLIFE BENEFICIAL USES

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

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

| COMPLIANCE LOCATION | INTERAGENCY STATION NUMBER(RKI1[]) | PARAMETER | DESCRIPTION (UNIT) [2] | WATER YEAR TYPE [3] | TIME PERIOD | VALUE |
|---|---|---|---|---|---|---|
| *DELTA OUTFLOW* | | | | | | |
| | | *Net Delta Outflow Index (NDOI) [7]* | *Minimum monthly average [8] NDOI (cfs)* | *All* | *Jan* | *4,500 [9]* |
| | | | | *All* | *Feb-Jun* | *[10]* |
| | | | | *W,AN* | *Jul* | *8,000* |
| | | | | *BN* | | *6,500* |
| | | | | *D* | | *5,000* |
| | | | | *C* | | *4,000* |
| | | | | *W,AN,BN* | *Aug* | *4,000* |
| | | | | *D* | | *3,500* |
| | | | | *C* | | *3,000* |
| | | | | *All* | *Sep* | *3,000* |
| | | | | *W,AN,BN,D* | *Oct* | *4,000* |
| | | | | *C* | | *3,000* |
| | | | | *W,AN,BN,D* | *Nov-Dec* | *4,500* |
| | | | | *C* | | *3,500* |
| *RIVER FLOWS* | | | | | | |
| *Sacramento River at Rio Vista* | *D-24 (RSAC101)* | *Flow rate* | *Minimum monthly average [11] flow rate (cfs)* | *All* | *Sep* | *3,000* |
| | | | | *W,AN,BN,D* | *Oct* | *4,000* |
| | | | | *C* | | *3,000* |
| | | | | *W,AN,BN,D* | *Nove-Dec* | *4,500* |
| | | | | *C* | | *3,500* |
| *San Joaquin River at Airport Way Bridge, Vernalis* | *C-10 (RSAN112)* | *Flow rate* | *Minimum monthly average [12] flow rate (cfs) [13]* | *W,AN* | *Feb-Apr 14* | *2,130 or 3,420* |
| | | | | *BN,D* | *and* | *1,420 or 2,280* |
| | | | | *C* | *May 16-Jun* | *710 or 1,140* |
| | | | | *W* | *Apr 15-* | *7,330 or 8,620* |
| | | | | *AN* | *May 15 [14]* | *5,730 or 7,020* |
| | | | | *BN* | | *4,620 or 5,480* |
| | | | | *D* | | *4,020 or 4,880* |
| | | | | *C* | | *3,110 or 3,540* |
| | | | | *All* | *Oct* | *1,000 [15]* |
| *EXPORT LIMITS* | | | | | | |
| | | *Combined export rate [16]* | *Maximum 3-day running average (cfs)* | *All* | *Apr 15- May 15 [17]* | *[18]* |
| | | | | *All* | *Feb-Jun* | *35% Delta inflow [21]* |
| | | | *Maximum percent of Delta inflow diverted [19] [20]* | *All* | *Jul-Jan* | *65% Delta inflow* |
| *DELTA CROSS CHANNEL GATES CLOSURE* | | | | | | |
| *Delta Cross Channel at Walnut Grove* | — | *Closure of gates* | *Closed gates* | *All* | *Nov-Jan* | *[22]* |
| | | | | | *Feb-May 20* | — |
| | | | | | *May 21- Jun 15* | *[23]* |

Table 3 Footnotes

[1] River Kilometer Index station number.

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

[3] The Sacramento Valley 40-30-30 Water Year Hydrologic Classification Index (see Figure 1) applies unless otherwise specified.

[4] Compliance will be determined at Jersey Point (station D15) and Prisoners Point (station D29).

[5] This standard does not apply in May when the best available May estimate of the Sacramento River Index for the water year is less than 8.1 MAF at the 90% exceedence level. [Note: The Sacramento River Index refers to the sum of the unimpaired runoff in the water year as published in the DWR Bulletin 120 for the following locations: Sacramento River above Bend Bridge, near Red Bluff; Feather River, total unimpaired inflow to Oroville Reservoir; Yuba River at Smartville; and American River, total unimpaired inflow to Folsom Reservoir.]

[6] A deficiency period is: (1) the second consecutive dry water year following a critical year; (2) a dry water year following a year in which the Sacramento River Index (described in footnote 5) was less than 11.35 MAF; or (3) a critical water year following a dry or critical water year. The determination of a deficiency period is made using the prior year's final Water Year Type determination and a forecast of the current year's Water Year Type; and remains in effect until a subsequent water year is other than a Dry or Critical water year as announced on May 31 by DWR and USBR as the final water year determination.

[7] Net Delta Outflow Index (NDOI) is defined in Figure 3.

[8] For the May-January objectives, if the value is less than or equal to 5,000 cfs, the 7-day running average shall not be less than 1,000 cfs below the value; if the value is greater than 5,000 cfs, the 7-day running average shall not be less than 80% of the value.

[9] The objective is increased to 6,000 cfs if the best available estimate of the Eight River Index for December is greater than 800 TAF. [Note: The Eight River Index refers to the sum of the unimpaired runoff as published in the DWR Bulletin 120 for the following locations: Sacramento River flow at Bend Bridge, near Red Bluff; Feather River, total inflow to Oroville Reservoir; Yuba River flow at Smartville; American River, total inflow to Folsom Reservoir; Stanislaus River, total inflow to New Melones Reservoir; Tuolumne River, total inflow to Don Pedro Reservoir; Merced River, total inflow to Exchequer Reservoir; and San Joaquin River, total inflow to Millerton Lake.]

[10] The minimum daily net Delta outflow shall be 7,100 cfs for this period, calculated as a 3-day running average. This requirement is also met if either the daily average or 14-day running average EC at the confluence of the Sacramento and the San Joaquin rivers is less than or equal to 2.64 mmhos/cm (Collinsville station C2). If the best available estimate of the Eight River Index (described in footnote 9) for January is more than 900 TAF, the daily average or 14-day running average EC at station C2 shall be less than or equal to 2.64 mmhos/cm for at least one day between February 1 and February 14; however, if the best available estimate of the Eight River Index for January is between 650 TAF and 900 TAF, the Executive Director of the SWRCB is delegated authority to decide whether this requirement applies. If the best available estimate of the Eight River Index for February is less than 500 TAF, the standard may be further relaxed in March upon the request of the DWR and the USBR, subject to the approval of the Executive Director of the SWRCB. The standard does not apply in May and June if the best available May estimate of the Sacramento River Index (described in footnote 5) for the water year is less than 8.1 MAF at the 90% exceedence level.

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

[11] The 7-day running average shall not be less than 1,000 cfs below the monthly objective.

[12] Partial months are averaged for that period. For example, the flow rate for April 1-14 would be averaged over 14 days. The 7-day running average shall not be less than 20% below the flow rate objective, with the exception of the April 15-May 15 pulse flow period when this restriction does not apply.

[13] The water year classification for the San Joaquin River flow objectives will be established using the best available estimate of the 60-20-20 San Joaquin Valley Water Year Hydrologic Classification (see Figure 2) at the 75% exceedence level. The higher flow objective applies when the 2-ppt isohaline (measured as 2.64 mmhos/cm surface salinity) is required to be at or west of 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.

[20] The percent Delta inflow diverted values can be varied either up or down. Variations are authorized subject to the process described in footnote 18.

[21] If the best available estimate of the Eight River Index (described in footnote 9) for January is less than or equal to 1.0 MAF, the export limit for February is 45% of Delta inflow. If the best available estimate of the Eight River Index for January is greater than 1.5 MAF, the February export limit is 35% of Delta inflow. If the best available estimate of the Eight River Index for January is between 1.0 MAF and 1.5 MAF, the DWR and the USBR will set the export limit for February within the range of 35% to 45%, after consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.

[22] For the November-January period, close Delta Cross Channel gates for a total of up to 45 days. The USBR will determine the timing and duration of the gate closure after consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.

[23] For the May 21-June 15 period, close Delta Cross Channel gates for a total of 14 days. The USBR will determine the timing and duration of the gate closure after consultation with the USFWS, the NMFS and the DFG. Consultation with the CALFED Operations Group established under the Framework Agreement will satisfy the consultation requirement.

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

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

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

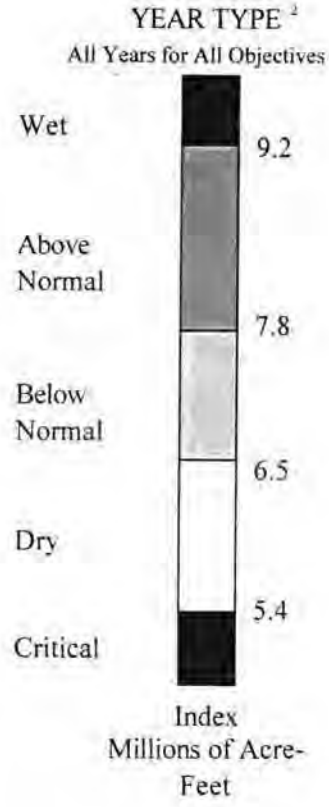
Where: X = Current year's April – July Sacramento Valley unimpaired runoff

Y = Current October – March Sacramento Valley unimpaired runoff

Z = Previous year's 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.

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

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

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

**Figure 2**
**San Joaquin Valley**
**Water Year Hydrologic Classification**

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

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

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

Y = Current October – March San Joaquin Valley unimpaired runoff

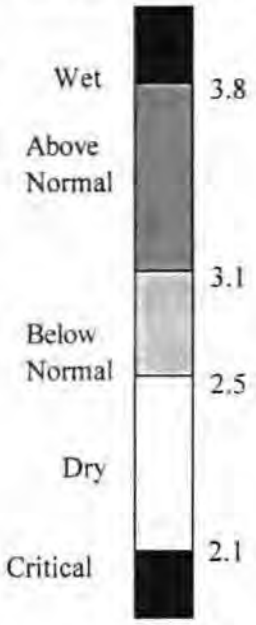
Z = Previous year's index[1]

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.

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

**YEAR TYPE**[2]

All Years for All Objectives




Index Millions of Acre-Feet

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

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

**Figure 3**
**NDOI and PERCENT INFLOW DIVERTED** [1]

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

*NDOI = DELTA INFLOW - NET DELTA CONSUMPTIVE USE - DELTA EXPORTS*

*PERCENT INFLOW DIVERTED = (CCF + TPP) ÷ DELTA INFLOW*

where *DELTA INFLOW = SAC + SRTP + YOLO + EAST + MISC + SJR*

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

where *NET DELTA CONSUMPTIVE USE = GDEPL - PREC*

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

and where *DELTA EXPORTS*[3] *= CCF + TPP + CCC + NBA*

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

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1 Not all of the Delta tributary streams aregaged and telemetered. When appropriate, other methods of estimating stream flows, such ascorrelations with precipitation or runoff from nearbystreams, 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 todistinguish 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 fro m Clifton CourtForebay shall be subtracted from Clifton Court Forebay inflow. (Byron-Bethany Irrigation District water use is incorporated into the GDEPL term.

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

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

[a] The requirement for number of days the maximum daily average EC (EC) of 2.64 mmhos per centimeter (mmhos/cm) must be maintained at Chipps Island and Port Chicago can also be met with maximum 14-day running average EC of 2.64 mmhos/cm, or 3-day running average NDOIs of 11,400 cfs and 29,200 cfs, respectively. If salinity/flow objectives are met for a greater number of days than the requirements for any month, the excess days shall be applied to meeting the requirements for the following month. The number of days for values of the PMI between those specified in this table shall be determined by linear interpolation.

[b] PMI is the best available estimate of the previous month's Eight River Index. (Refer to Footnote 10 for Table 3 for a description of the Eight River Index.)

[c] When the PMI is between 800 TAF and 1000 TAF, the number of days the maximum daily average EC of 2.64 mmhos/cm (or maximum 14-day running average EC of 2.64 mmhos/cm, or 3-day running average NDOI of 11,400 cfs) must be maintained at Chipps Island in February is determined by linear interpolation between 0 and 28 days.

[d] This standard applies only in months when the average EC at Port Chicago during the 14 days immediately prior to the first day of the month is less than or equal to 2.64 mmhos/cm.

Table 5. Water Quality Compliance and Baseline Monitoring

| Station Number | | Station Description | Cont. Rec.[1] | Physical/ Chem-ical[2] | Multi-para-meter[3] | Phyto-plank-ton[4] | Zoo-plank-ton[4] | Ben-thos[4] |
|---|---|---|---|---|---|---|---|---|
| C2 | ■ | Sacramento River @ Collinsville | * | | | | | |
| C3 | ▲ | Sacramento River @ Greens Landing | | * | * | * | | |
| C4 | ■ | San Joaquin River @ San Andreas Ldg. | * | | | | | |
| C5 | ■ | Contra Costa Canal @ Pumping Plant #1 | * | | | | | |
| C6 | ■ | San Joaquin River @ Brandt Bridge site | * | | | | | |
| C7 | ▲ | San Joaquin River @ Mossdale Bridge | | | * | | | |
| C8 | ■ | Old River near Middle River | * | | | | | |
| C9 | • | West Canal at mouth of CC Forebay Intake | | | | * | | * |
| C10 | • | San Joaquin River near Vernalis | | * | | * | | |
| C13 | ■ | Mokelumne River @ Terminous | * | | | | | |
| C14 | ■ | Sacramento River @ Port Chicago | * | | | | | |
| C19 | ■ | Cache Slough @ City of Vallejo Intake | * | | | | | |
| D4 | ▲ | Sacramento River above Point Sacramento | | * | | * | * | * |
| D6 | ▲ | Suisun Bay @ Bulls Head Pt. nr. Martinez | | * | * | * | * | * |
| D7 | ▲ | Grizzly Bay @ Dolphin nr. Suisun Slough | | * | | * | * | * |
| D8 | ▲ | Suisun Bay off Middle Point near Nichols | | * | | * | * | |
| D10 | • | Sacramento River @ Chipps Island | | | * | | * | |
| D12 | • | San Joaquin River @ Antioch Ship Canal | | | * | | * | |
| D15 | ■ | San Joaquin River @ Jersey Point | * | | | | | |
| D16 | ▲ | San Joaquin River @ Twitchell Island | | | | | * | * |
| D22 | • | Sacramento River @ Emmaton | | | | | * | |
| D24 | • | Sacramento River below Rio Vista Bridge | | | * | | | * |
| D26 | ▲ | San Joaquin River @ Potato Point | | * | | * | * | |
| D28A | ▲ | Old River near Rancho Del Rio | | * | * | * | * | * |
| D29 | ■ | San Joaquin River @ Prisoners Point | * | | | | | |
| D41 | ▲ | San Pablo Bay near Pinole Point | | * | | * | | * |
| D41A | ▲ | San Pablo Bay nr. mouth of Petaluma R. | | | | | | * |
| DMC1 | • | Delta-Mendota Canal at Tracy Pump. Plt. | | | * | | | |
| P8 | ▲ | San Joaquin River @ Buckley Cove | | * | * | * | * | * |
| P12 | ■ | Old River @ Tracy Road Bridge | * | | | | | |
| MD10 | ▲ | Disappointment Slough near Bishop Cut | | * | | * | * | |
| S21 | ■ | Chadbourne Slough @ Sunrise Duck Club | * | | | | | |
| S35 | ▲ | Goodyear Sl. @ Morrow Is. Clubhouse | * | | | | | |
| S42 | • | Suisun Slough 300' so. of Volanti Slough | * | | | | * | |
| S49 | ■ | Montezuma Slough near Beldon Landing | * | | | | | |
| S64 | ■ | Montezuma Slough @ National Steel | * | | | | | |
| S97 | ▲ | Cordelia Slough @ Ibis Club | * | | | | | |
| NZ032 | ▲ | Montezuma Slough, 2nd bend from mouth | | | | | * | |

(continued)

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

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

| Station Number | Station Description | Cont. Rec.[1] | Physical/ Chemical[2] | Multi-parameter[3] | Phyto-plankton[4] | Zoo-plankton[4] | Benthos[4] |
|---|---|---|---|---|---|---|---|
| — ■ | Sacramento R. (I St. Bridge to Freeport) (RSAC155) | * | | | | | |
| — ▲ | San Joaquin R. (Turner Cut to Stockton) (RSAN050-RSAN061) | * | | | | | |
| — ■ | Barker Sl. at No. Bay Aqueduct (SLBAR3) | * | | | | | |
| — ▲ | Water supply intakes for waterfowl management areas on Van Sickle Island and Chipps Island | * | | | | | |

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

1 Continuous recorder only (EC, dissolved oxygen, and/or temperature). For municipal and industrial intake chlorides objectives, EC can be monitored and converted to chlorides.

2 Physical/chemical monitoring is conducted monthly at discrete sites and includes the following parameters: water column depth, secchi, nutrient series (inorganic and organic N-P), water temperature, dissolved oxygen, electrical conductivity, turbidity, and chlorophyll *a*. In addition, on-board recording for vertical and horizontal profiles is conducted intermittently for the following parameters: water temperature, dissolved oxygen, electrical conductivity, turbidity, and chlorophyll *a*.

3 Multi-parameter monitoring is conducted continuously and provides telemetered data on the following parameters: water temperature, pH, dissolved oxygen, electrical conductivity, turbidity, chlorophyll *a*, wind speed and direction, solar radiation, air temperature, and tidal elevation.

4 Sampling occurs monthly at discrete sites.

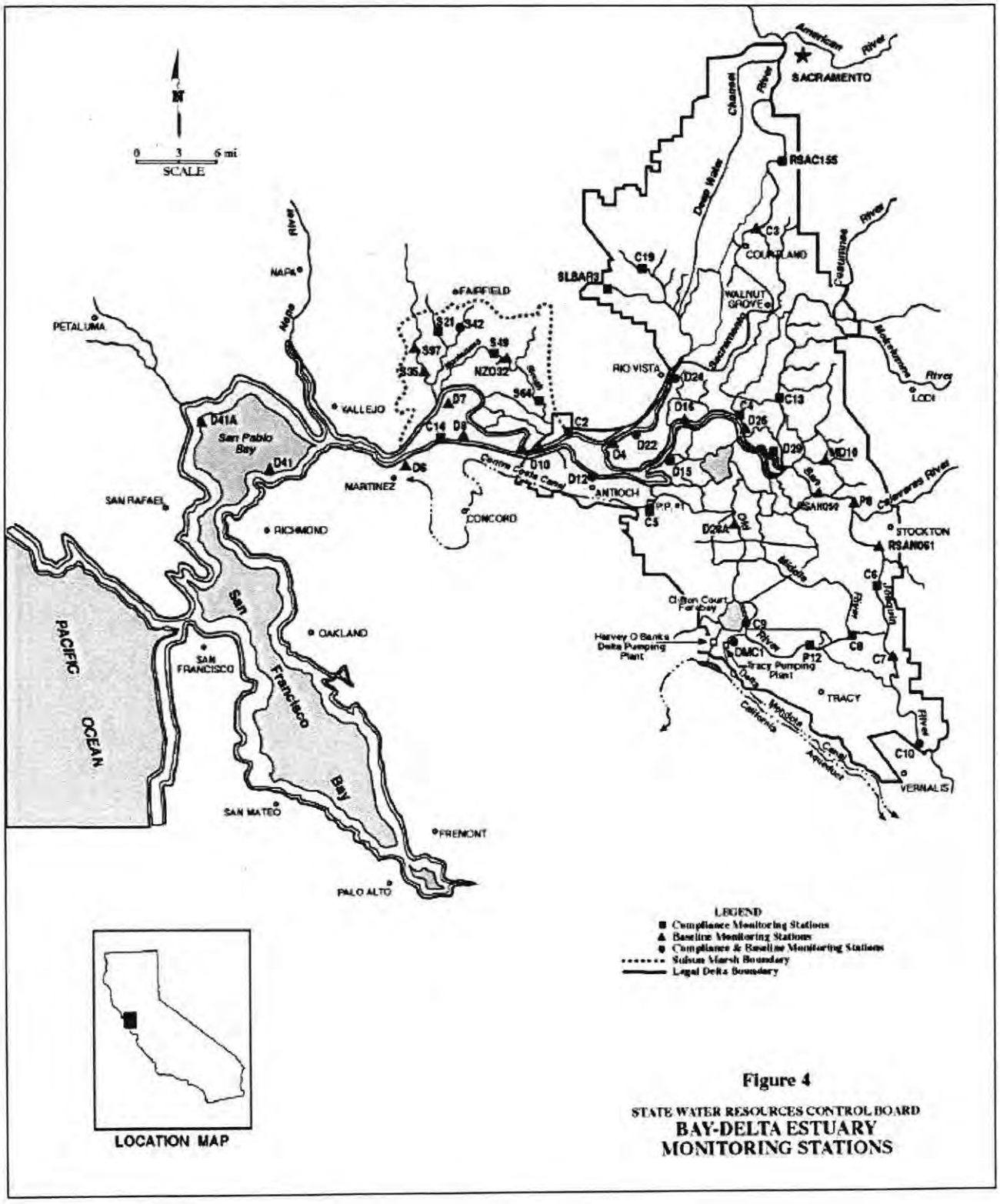


**Figure 4**

STATE WATER RESOURCES CONTROL BOARD
**BAY-DELTA ESTUARY MONITORING STATIONS**

**Attachment 2**

**DWR Program Decision Document**

**And CEQA Certification**

## CEQA Decision and Project Approval

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

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

## Background

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

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

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

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

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

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

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

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

**CEQA Certification**

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

Department of Water Resources

9/28/12

Gary Bardini

Date

Deputy Director

Department of Water Resources

**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.

9/28/12

Gary Bardini

Date

Deputy Director

Department of Water Resources

Attachment 1

# 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**

# Table of Contents

**1.0 Certification of the Program Environmental Impact Report ..... 1-1**
**2.0 Findings ..... 2-1**
2.1 Introduction ..... 2-1
2.2 Environmental Review Process ..... 2-1
2.2.1 Development of the Proposed SJRRP ..... 2-1
2.2.2 Alternatives ..... 2-2
2.2.3 Preparation and Public Review of the PEIS/R ..... 2-9
2.2.4 Absence of Significant New Information ..... 2-10
2.2.5 Administrative Record ..... 2-11
2.3 Findings Required Under CEQA ..... 2-12
2.3.1 Findings Related to Program- and Project-Level Impacts ..... 2-13
2.3.2 Findings Related to Cumulative Impacts ..... 2-60
2.3.3 Findings Related to Project Alternatives ..... 2-67
2.4 Summary of Findings ..... 2-73
**3.0 Statement of Overriding Considerations ..... 3-1**
**4.0 References ..... 4-1**

## Tables

Table 2-1. Actions Included under Action Alternatives ..... 2-5
Table 2-2. Summary of Less-than-Significant Impacts in the SJRRP PEIS/R..... 2-13
Table 2-3. Potential Mitigation Strategies ..... 2-24
Table 2-4. Existing and Future Regulatory Programs ..... 2-24

# List of Abbreviations and Acronyms

| | |
|---|---|
| Act | San Joaquin River Restoration Settlement Act |
| ANSI | American National Standards Institute |
| APCO | air pollution control officer |
| BMP | best management practice |
| BO | biological opinion |
| CD | compact disc |
| cfs | cubic feet per second |
| CVP | Central Valley Project |
| dBA | A-weighted decibel |
| DEET | diethyl(meta)toulamide |
| Delta | Sacramento-San Joaquin Delta |
| DFG | California Department of Fish and Game |
| DMC | Delta–Mendota Canal |
| Draft PEIS/R | Draft Program Environmental Impact Statement/Report |
| DWR | California Department of Water Resources |
| Final PEIS/R | Final Program Environmental Impact Statement/Report |
| FWA | Friant Water Authority |
| GMP | groundwater management plan |
| ISR | Indirect Source Review |
| mph | miles per hour |
| NEPA | National Environmental Policy Act |
| NMFS | National Marine Fisheries Service |
| NOA | Notice of Availability |
| NOP | Notice of Preparation |
| NOX | oxides of nitrogen |
| NRDC | Natural Resources Defense Council |
| NRHP | National Register of Historic Places |
| OPR | Office of Planning and Research |
| PA | Programmatic Agreement |
| PARCS | Parks, After School, Recreation, and Community Services |
| PEIS/R | program environmental impact statement/report |
| $PM_{2.5}$ | fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less |
| $PM_{10}$ | respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less |
| PRC | California Public Resources Code |

| | |
|---|---|
| Reclamation | U.S. Bureau of Reclamation |
| ROG | reactive organic gases |
| RPA | reasonable and prudent alternative |
| RWQCB | Regional Water Quality Control Board |
| Secretary | Secretary of the Interior |
| Settlement | Stipulation of Settlement, *NRDC, et al., v. Rodgers, et al.* |
| SHPO | State Historic Preservation Officer |
| SJRC | San Joaquin River Conservancy |
| SJRRP | San Joaquin River Restoration Program |
| SJVAPCD | San Joaquin Valley Air Pollution Control District |
| SMARA | California Surface Mining and Reclamation Act |
| State | State of California |
| STC | Sound Transmission Class |
| SWP | State Water Project |
| SWPPP | storm water pollution prevention plan |
| USFWS | U.S. Fish and Wildlife Service |
| USJRBSI | Upper San Joaquin River Basin Storage Investigation |
| VDE | visible dust emissions |

# 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**

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

Notes:
[1] All alternatives also include the Physical Monitoring and Management Plan and the Conservation Strategy, which include both project- and program-level actions intended to guide implementation of the Stipulation of Settlement.
[2] Common Restoration actions are physical actions to achieve the restoration goal that are common to all action alternatives and are addressed at a program level of detail.

Key:
CEQA = California Environmental Quality Act
cfs = cubic feet per second
CVP = Central Valley Project
Delta = Sacramento–San Joaquin Delta
NEPA = National Environmental Policy Act
PEIS/R = Program Environmental Impact Statement/Report
SWP = State Water Project

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

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 redivert 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**

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

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

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

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

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|---|
| 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.)**

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

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

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

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

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

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

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

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

### *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

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

### *Mitigation*

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

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 $PM_{10}$ 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 $PM_{10}$ Prohibitions." Compliance with SJVAPCD's Rule 9510 will result in a minimum 20 percent reduction in $NO_X$ emissions from heavy-duty diesel equipment, compared with statewide average emissions and also will reduce emissions of ROG (reactive organic gases) and $PM_{10}$ 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 ($PM_{10}$ emissions) will be reduced below SJVAPCD levels of significance. However, without specific project-level information, construction emissions of ROG and $NO_X$ 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 $NO_X$ 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**

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

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**

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

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

***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 to 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

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

***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 or 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 or 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

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.

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

***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 land owners 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.

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

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.

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

***Mitigation***

No mitigation is available.

***Finding***

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

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

- 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 groundbourne noise and vibration analysis report to determine future construction-related program groundbourne 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 groundbourne 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

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.

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,

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

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.

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

***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. 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.

***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

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

***Mitigation***

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

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.

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

***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.

- 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

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

### *Mitigation*

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

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***

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

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 $NO_X$. For $PM_{10}$, 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 $PM_{10}$ 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 $NO_X$ 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, $PM_{10}$, and $PM_{2.5}$; 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 $PM_{10}$ 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, $PM_{10}$, and $PM_{2.5}$, 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 fallowing 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, recapture, 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 A1is 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.

Alternative A2 has the same limitations for water recapture and the same limitations for minimizing water supply impacts as those identified for Alternative A1 (see "Alternative A1, Reach 4B1 at 475 cfs, Delta Recapture," above). Because it provides greater flexibility for implementing actions in support of the Water Management Goal, Alternative C1 would be superior to Alternative A2 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.

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

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 restoration efforts, water supply allocations, engineering, biological, technological, social, and economic considerations. Uncertainties also exist that may affect SJRRP 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.

9/28/12
Date

Gary Bardini
Deputy Director
Department of Water Resources

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

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

| Mitigation Number | Mitigation Measure | Timing/ Schedule | Implementation Responsibility | Completion of Implementation | |
|---|---|---|---|---|---|
| | | | | Action | Date Completed |
| **16.0 Land Use** | | | | | |
| **LUP-4 Project** | **Implement Vehicular Traffic Detour Planning.** | | | | |
| | Project proponents of subsequent site-specific projects will conduct a Phase I Environmental Site Assessment to determine the presence of any hazardous materials at all construction sites at which ground-disturbing activities would occur. Project proponents of subsequent site-specific projects will implement all the recommended actions and measures identified in the Phase I Environmental Site Assessment. | During project-level planning, design, and permitting | Reclamation | | |
| **LUP-5 Project** | **Preserve Agricultural Productivity of Important Farmland to Minimize Effects of Inundation and Saturation Effects.** | | | | |
| | 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:<br>• 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.<br>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. | Before and during release of Interim and Restoration flows | Reclamation | | |

| Mitigation Number | Mitigation Measure | Timing/ Schedule | Implementation Responsibility | Completion of Implementation | |
|---|---|---|---|---|---|
| | | | | Action | Date Completed |
| **20.0 Public Health and Hazardous Materials** | | | | | |
| **PHH-9 Project** | **Coordinate with and Support Vector Control District(s).** | | | | |
| | 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:<br>• 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.<br>• 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).<br>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. | Before and during release of Interim and Restoration flows; during pre-construction (prior to ground-disturbing construction activities); and during construction | Reclamation | | |

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

| Mitigation Number | Mitigation Measure | Timing/ Schedule | Implementation Responsibility | Completion of Implementation | |
|---|---|---|---|---|---|
| | | | | Action | Date Completed |
| | available on the lower Kings River below Pine Flat Reservoir.<br>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:<br>• 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<br>• Signage at public and private access points and facilities in each reach<br>• Verbal messages delivered as part of regular recreation programs offered by agencies and organizations, such as the Public Canoe Program conducted by the SJRPCT<br>• 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<br>• 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<br>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.<br>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 Number | Mitigation Measure | Timing/ Schedule | Implementation Responsibility | Completion of Implementation | |
|---|---|---|---|---|---|
| | | | | Action | Date Completed |
| | Because boaters, swimmers, and waders may encounter less safe boating, swimming, and wading conditions due to Interim and Restoration flows, and may need assistance or may generate public nuisances (such as open fires) in areas that had not been commonly used or in previously dry river areas that may be less familiar to response agencies, key partners to help protect public safety will also include all emergency rescue, response, and enforcement agencies | | | | |
| **23.0 Transportation and Infrastructure** | | | | | |
| **TRN-7 Project** | **Implement Vehicular Traffic Detour Planning.** | | | | |
| | 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.<br><br>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 | Within 1 year of the signing of the Record of Decision; during project-level planning, design, and permitting; and during construction | Reclamation | | |

| | | | | | |
|---|---|---|---|---|---|
| | 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<br>or by the local maintenance agency to be proportionately reimbursed by<br>Reclamation.<br>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:<br>• Watering<br>• Uniform layer of washed gravel<br>• Chemical/organic dust stabilizers/suppressants in accordance with the manufacturer's specifications<br>• Roadmix<br>• Paving<br>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. | | | | |

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

**DIVISION OF WATER RIGHTS**

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

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

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

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BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

## 1.0 SUBSTANCE OF PETITIONS

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

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

*2013 Water Supply Conditions*

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

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

*Changes Proposed Under the Transfer*

The petitions will further the following list of projects:

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

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

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

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

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

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

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

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

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

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

d. Castaic Lake Water Agency – San Luis Water District

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

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

*Groundwater Banking*

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

*Regulation Program*

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

*Fall/Winter Supplies Exchange*

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

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

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

f. Kern County Water Agency to Westlands

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

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

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

## 2.0 BACKGROUND

### 2.1 Existing Place of Use

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

### 2.2 Place of Use under the Proposed Transfer

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

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

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

## 3.0 LEGAL REQUIREMENTS FOR TEMPORARY TRANSFERS

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

## 4.0 PUBLIC NOTICE AND COMMENTS

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

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

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

<u>Reclamation Response</u>:

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

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

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

State Water Board Response:

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

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

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

## 5.0 REQUIRED FINDINGS OF FACT

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

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

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

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

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

### 5.2 No Injury to Other Legal Users of Water

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

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

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

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

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

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

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

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

## 6.0 STATE WATER BOARD'S DELEGATION OF AUTHORITY

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

## 7.0 CONCLUSIONS

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

I conclude that, based on the available evidence:

1. The proposed transfer involves only an amount of water that would have been consumptively used or stored in the absence of the temporary change.

2. The proposed temporary change will not injure any legal user of water.

3. The proposed temporary change will not have an unreasonable effect upon fish, wildlife, or other instream beneficial uses.

## ORDER

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

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

1. The transfer/exchanges of water are limited to the period commencing on the date of this Order and continuing for one year.

2. The place of use under DWR Permit 16479 is temporarily expanded to include portions of the CVP service area shown on map titled *Petition for Temporary Change to Modify SWP and CVP Places of Use, Areas to be added to SWP Authorized Place of Use,* Map 214-202-83.

3. The place of use under Reclamation License 1986 and Permits 11885, 11886, 12721, 11967, 11887, 12722, 12723, 12725, 12726, 12727, 11315, 11316, 11968, 11969, 11970, 12860, 11971, 11972, 11973, and 12364 is temporarily expanded to include portions of the SWP service area as *Petition for Temporary Change to Modify SWP and CVP Places of Use, Areas to be added to CVP Authorized Place of Use,* Map No.214-202-84.

4. Water transferred/exchanged pursuant to this Order shall be limited to 196,000 af as specifically described in item 1.1 (a) through (g) in "Substance of Petitions" above. Although the transfer limits water service as noted herein, the one-for-one repayment of exchanged transfer water is not limited to service areas (a) through (g), but may occur within the more general service areas shown on Maps 214-202-83 and 214-202-84.

5. DWR and Reclamation shall not increase their allocations of water to the transfer/exchange parties beyond the quantities authorized by existing contract for purposes of this transfer/exchange.

6. Diversion of water at the Delta Pumps pursuant to this Order is subject to compliance by the SWP and CVP project operators with the objectives set forth in Tables 1, 2 and 3 on page 181 to 187 of State Water Board's Revised Decision 1641 (D-1641), or any future State Water Board order or decision implementing Bay-Delta water quality objectives at those points of diversion/rediversion, including compliance with the various plans required under D-1641 as prerequisites for the use of the Joint Points of Diversion by DWR and Reclamation. Diversion of water at the Delta Pumps pursuant to this Order is subject to compliance by the pumping plant operators with all applicable biological opinions, court orders, and any other conditions imposed by other regulatory agencies applicable to these operations.

7. Within 90 days of the completion of the transfer; but no later than September 30, 2014, the Petitioners shall provide to the Deputy Director for Water Rights a report describing the transfer authorized by this Order. The report shall include the following information:

    a. Separate data identifying the monthly and total volumes of water delivered to each of the transfer/exchange parties pursuant to this Order.

    b. The monthly and total amounts of Delta and delivered water to each of the transfer/exchange parties for the period covered by this transfer. This total shall include SWP and CVP deliveries, other water transfers, and any other amount of Delta water each location received.

    c. Documentation that the water transferred/exchanged did not result in an increase in water diverted to SWP and CVP facilities from the source waters of DWR's permit and Reclamation's license and permits beyond the quantities that would otherwise have been diverted absent the transfer.

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

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

9. This order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 1531-1544). If a "take" will result from any act authorized under this transfer, the petitioners shall obtain authorization for an incidental take permit prior to construction or operation. Petitioners shall be responsible for meeting all requirements of the applicable Endangered Species Act for the temporary transfer authorized under this order.

10. I reserve jurisdiction to supervise the transfer, exchange, and use of water under this order, and to coordinate or modify terms and conditions, for the protection of vested rights, fish, wildlife, instream beneficial uses and the public interest as future conditions may warrant.

STATE WATER RESOURCES CONTROL BOARD

ORIGINAL SIGNED BY
JAMES W. KASSEL FOR:

*Barbara Evoy, Deputy Director*
*Division of Water Rights*

Dated: JUL 01 2013

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

**DIVISION OF WATER RIGHTS**

**ORDER WR 2010-0029-DWR**

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

**TEMPORARY TRANSFER OF WATER AND CHANGE PURSUANT TO WATER CODE SECTIONS 1725 AND 1707**

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SOURCE: San Joaquin River

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

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## ORDER APPROVING TEMPORARY TRANSFER AND CHANGE

BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

### 1. BACKGROUND

The purpose of the proposed temporary transfer and change is to implement on an interim basis 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) 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 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 State

Water Resources Control Board (State Water Board) Order WR 2009-0058-DWR, which approved temporary transfer petitions for a one-year period. The present order is intended to provide temporary authorization to continue the interim flow program during the 2011 Water Year (WY). The interim flow program will be terminated in 2013 upon initiation of the long-term restoration flow program. Data obtained during the interim phase will be utilized to determine appropriate water right conditions for operating the long-term restoration program.

## 2. SUBSTANCE OF PETITIONS

On July 2, 2010, the U.S. Bureau of Reclamation (Reclamation) submitted petitions for transfer and change pursuant to Water Code sections 1725 and 1707 with the State Water Board, Division of Water Rights (Division). The petitions request authorization to change the method of operation of the Friant Division of the Central Valley Project (CVP) in order to implement on an interim basis the provisions of the Settlement and the Settlement Act. Reclamation seeks to (1) add points of rediversion, (2) add to the place of use, and (3) add preservation and enhancement of fish and wildlife resources as an authorized purpose of use under Permits 11885, 11886, and 11887.

A maximum of 389,355 acre-feet (af) of water will be transferred during the period October 1, 2010 to September 30, 2011. Reclamation plans to transfer up to 32,569 af from October 1, 2010 through December 1, 2010. Depending on the forecast for the 2011 WY type, up to 356,787 af would be transferred from February 1, 2011 through September 30, 2011. No transfer will occur from December 2, 2010 through January 31, 2011.

The petitions propose temporary changes to the points of rediversion and place of use under Reclamation's permits. The petitions also request the temporary addition of preservation and enhancement of fish and wildlife resources as an authorized purpose of use under the subject permits. Water will be released to the natural watercourse of the San Joaquin River for this instream 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 water released from Millerton Reservoir for instream use from Friant Dam to the confluence of the Merced and San Joaquin Rivers, and use instream conveyance of water in order to meet existing Reclamation obligations in lieu of making such deliveries from the Delta-Mendota Canal. Water will be used by Reclamation concurrently for instream beneficial use and for existing delivery obligations within the existing authorized places of use under Permits 11885, 11886, and 11887.

Water previously stored or that would otherwise be delivered for consumptive use in the Friant service areas would be released from Millerton Reservoir through the downstream San Joaquin River channel. Water would then be rediverted at and near Mendota Dam for delivery through various canals and to flow through Mendota Dam. Water would flow past Sack Dam. Water would thence be conveyed through the Sand Slough Control Structure to and through the East Side Bypass. Water in the East Side Bypass would thence flow through the Mariposa Bypass and thence the San Joaquin River and would also continue to flow through the East Side Bypass to Bear Creek. Water would be diverted along the East Side 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.

Reclamation proposes to temporarily amend the place of use for instream beneficial uses to include the San Joaquin River from Friant Dam to the San Joaquin River near Vernalis, and thence to the Sacramento-San Joaquin Delta (Delta) channels at the Jones and Banks Pumping Plants. Implementing the transfer could increase flows entering the Delta from the San Joaquin River. (Final Environmental Assessment (EA)/Initial Study (IS) for the WY 2010 Interim Flows Project (WY 2010 EA/IS), p. 2-12.) Reclamation seeks to temporarily redivert the transfer water at the Jones and Banks Pumping Plants and at the San Luis Dam for potential 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. (WY 2010 EA/IS, p. 2-12.)

The transferred water will be placed to use within Fresno, Madera, Tulare, Kern, Merced, Stanislaus, Contra Costa, Alameda, San Joaquin and Sacramento Counties.

The petitions include proposed conditions for approval: (1) maintaining the 5 cfs requirement at Gravelly Ford to meet the obligations of the Holding Contracts; (2) maintaining sufficient Millerton Lake storage and available San Joaquin River channel capacity to meet the requirements of the San Joaquin River Exchange Contract; (3) conditioning release of transfer water on implementation of the Invasive Species Monitoring and Management Plan in Appendix F of the WY 2010 EA/IS; (4) conditioning release of transfer water on implementation of the 2009-2013 Interim Flow Release Program, Water Quality Monitoring Plan in Appendix E of the Supplemental EA for the WY 2011 Interim Flows Project (WY 2011 Supplemental EA); and (5) conditioning release of transfer water on implementation of the Seepage Monitoring and Management Plan in Appendix D of the WY 2010 EA/IS. The requested conditions are included in this order.

## 3. COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Reclamation filed the petitions for a temporary transfer and change under Water Code sections 1707 and 1725 et seq. Water Code section 1729 exempts temporary changes involving a transfer of water from the requirements of CEQA (Pub. Resources Code, § 21000 et seq.). The State Water Board will issue a Notice of Exemption.

In 2009 Reclamation, as the lead agency under the National Environmental Policy Act, and DWR, as the lead agency under CEQA, prepared the WY 2010 EA/IS or the 2010 Interim Flows Project. The EA/IS evaluated potential environmental consequences associated with the estimated change in flow in the San Joaquin River as a result of the 2010 Interim Flows Project. Reclamation and DWR adopted a Finding of No Significant Impact (FONSI) and Mitigated Negative Declaration, respectively, mitigation measures, and a Mitigation Monitoring Plan for the project.

On June 11, 2010, Reclamation released a Draft Supplemental EA and Proposed FONSI for the WY 2011 Interim Flows Project. On September 21, 2010, it completed the Final WY 2011 Supplemental EA and signed the FONSI. The Final WY 2011 Supplemental EA relies in part on analyses and conclusions presented in the Final WY 2010 EA/IS. The Final 2011 Supplemental EA incorporates the Final 2010 EA/IS by reference.

In its petitions, Reclamation requested that the change petitions be conditioned on compliance with certain mitigation measures identified in the Final WY 2010 EA/IS for the 2010 Interim Flows Project. These conditions include establishing the pattern of flow releases based on Tables 2-1 and 2-2 of the 2010 EA/IS, the maximum release rates at Friant Dam based on Table 2-3 of the 2010 EA/IS, monitoring flows in accordance with the Flow Monitoring and Management Plan, Appendix E of 2010 EA/IS, compliance with the Invasive Species Monitoring and Management Plan in Appendix F of the 2010 EA/IS, implementation of the Seepage Monitoring and Management Plan in Appendix D of the 2010 EA/IS, and implementation of the Water Quality Monitoring Plan in Appendix E of the 2010 EA/IS. (Petition, pp. 3, 7.) Including those measures will help to avoid or reduce any unreasonable effects on fish and wildlife and to avoid injury to legal users of water. Accordingly, the requested mitigation measures are included in this order.

## 4. CRITERIA FOR APPROVING THE PROPOSED TEMPORARY TRANSFER AND CHANGE

Water Code section 1707 authorizes the use of the temporary transfer provisions of Water Code section 1725 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. Pursuant to Water Code sections 1707 and 1725, Reclamation applied for a temporary transfer and change for the purpose of preserving and enhancing fish and wildlife resources. Before approving Reclamation's petitions, the State Water Board must make the following required findings under Water Code section 1707:

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.

In addition, the State Water Board must make the following required findings before approving a temporary change under Water Code section 1725 et seq.:

a. The proposed transfer involves only the amount of water that would have been consumptively used or stored in the absence of the temporary change.

b. The proposed change would not injure any legal user of water, during any potential hydrologic condition that the Board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of water or return flows.

c. The proposed change would not unreasonably affect fish, wildlife, or other instream beneficial uses.

(Wat. Code, §§ 1726, subd.(e), 1727, subd. (b).)

With respect to the "no injury" inquiry under both statutes, the State Water Board must evaluate whether the change will adversely affect the rights of others to the water. In the case of a CVP water supply contractor who claims an injury due to reductions in the amount of water available to it, for example, the contractor must show that it has a right to the water under its contract with Reclamation and that the redirection of the transferred water will interfere with that contractual right. (*State Water Resources Control Bd. Cases* (2006) 136 Cal.App.4th 674, 738-743, 805.) It is not enough for the contractor to show that it will receive less water than it historically received. (*Id.*, p. 805.)

### 4.1 No injury to any legal user of water

Reclamation asserts that the proposed transfer will not result in injury to any legal user of water. In the petitions, Reclamation addressed whether there would be any legal injury to San Joaquin River Holding Contractors, San Joaquin River Exchange Contractors (Exchange Contractors), Friant Division CVP Water Service Contractors, other South-of-Delta Water Service Contractors, Eastside Division Water Service Contractors, 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 12), Reclamation indicates that the proposed transfer would not affect or expand existing obligations or increase demand for CVP water supplies. Reclamation concluded that there would be no injury. The Exchange Contractors/RMC's objection did not identify injury to any legal entitlement[1] to water.

[1] Although the objection claims potential injury to Paramount Farming's water supplies, no information was provided to document a legal basis of right and injury thereto. As of June 30, 2010, the State Water Board had no record of water right for Paramount Farming. Furthermore, Paramount is not a Reclamation contractor. (Reclamation September 2, 2010 email from Alicia Gasdick to Kathy Mrowka.)

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

In its petitions, Reclamation states that Millerton Reservoir operations will be conducted so that the availability of deliveries and releases for the Exchange Contractors' water supply will be the same as in the absence of the proposed changes. It contends that necessary deliveries from the DMC will be made pursuant to the terms and conditions of its Exchange Contract. Reclamation stated that the WY 2010 EA/IS concluded that based upon CalSim modeling results, the proposed transfer would not affect water delivery quantities to contractors outside the Friant Division, including the San Joaquin River Exchange Contractors. (Petition Supplement, p. 10.) Reclamation also indicated that all water that is subject to the transfer petitions 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. Absent the proposed action, the only non-flood flows that Reclamation would release at Friant Dam are flows to maintain 5 cubic feet per second (cfs) at Gravelly Ford and any flows made pursuant to the Exchange Contract. No other non-flood flow releases are made for use by any other entity downstream of Friant. These non-flood flows will remain unchanged under the proposed action. (Petition Supplement, p. 10.)

In order to ensure that the Exchange Contractors will not be affected by the proposed transfer, Reclamation proposes the following permit condition. The State Water Board will condition the transfer accordingly. In addition, in a separate term, the State Water Board shall make it clear that this approval does not modify contractual obligations of Reclamation to the Exchange Contractors, nor does it alter the requirements of the Settlement Act.

> Reclamation shall 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, Ilr-1144, as amended February 14, 1968, to the extent such releases would be made in the absence of the transfer.

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

The releases from Millerton Reservoir pursuant to the petition would be in addition to the quantity of releases otherwise required under the San Joaquin River Holding Contracts. The Order includes a condition regarding maintenance of the existing 5 cfs requirement at Gravelly Ford in addition to the newly proposed instream flow regime. Reclamation requested inclusion of a condition to this effect in its petitions. (Petition Supplement, p. 7.)

Given that the proposed changes will not result in less natural flow in the source than without the project, the evidence supports the conclusion that the proposed project will not injure the rights of any legal user entitled to the use of that natural flow. Similarly, as discussed above, in evaluating whether the proposed change will adversely affect a person who holds a contractual right to a water supply, the contractor must show that the redirection of the transferred water will interfere with the contractual right. (*State Water Resources Control Bd. Cases*, *supra*, 136 Cal.App.4th at 738-743, 805.) Absent specific information

identifying particular legal users of water and the potential injury to their water rights, the State Water Board concludes that Reclamation has presented sufficient information to conclude that the proposed temporary transfer will not cause injury to the Exchange Contractors/RMC or other legal users of water.

Nonetheless, although the State Water Board concludes that the proposed changes will not injure any legal user of water, as discussed herein, the Board will condition its approval to avoid injury.

### 4.2 Water that would have been consumptively used or stored

Water Code section 1725 requires the State Water Board to find that the transfer would involve the amount of water that would have been consumptively used or stored by the permittee in the absence of the proposed temporary change. Diversion and use of water is limited to the water that is available under the terms and conditions of Reclamation's permits, and all water that is subject to the transfer petitions 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 in the absence of the transfer. Reclamation evaluated Millerton Lake daily operations and monthly operations downstream of Friant Dam in the WY 2010 EA/IS and identified the impacts of modifying its operations in a manner that is consistent with the water right permits. There is no evidence to indicate that water will not be available to meet the requirements of downstream water users and other water right holders to the extent Reclamation is required to provide such water.

### 4.3 No Unreasonable effect on fish, wildlife, or other instream beneficial uses

In its petitions, Reclamation states that the proposed transfer would not significantly affect fisheries resources. (Petition Supplement, pp. 13-14.) According to Reclamation, the proposed transfer 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 transfer requirements would occur only in compliance with regulatory requirements, including the USFWS and NMFS biological opinions or other requirements.

## 5. PUBLIC NOTICE OF THE PETITIONS

The State Water Board issued notice of the petitions on July 8, 2010. Any objections[2] were required to be submitted by August 9, 2010. A one-week extension (until August 16, 2010) for submitting objections was granted when requested by interested persons. Protests were filed by: (1) the Exchange Contractors[3] and the San Joaquin River Resource Management Coalition (RMC); (2) the San Luis and Delta-Mendota Water Authority (Authority); and (3) California Fisheries and Water Unlimited (CFWU). Comment letters were received from Paramount Farming Company (Paramount), Lower San Joaquin Levee District (Levee District) and the Department of Fish and Game (DFG).

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[2] Water Code section 1727, subdivision (f) allows water users that may be affected by a proposed temporary change and other interested party to file a written comment with the State Water Board. The State Water Board's regulations allow any interested person to file an objection. (Cal. Code Regs., tit. 23, § 804, subd. (b).) In making their comments or objection, some interested persons used the protest form available on the Divison's website. This order may use the term "comment," "objection," or "protest," as used by the interested person, but essentially the documents serve the same purpose.

[3] 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.

## 6. OBJECTIONS AND COMMENTS ON THE PETITIONS

### 6.1 Exchange Contractors/RMC

#### 6.1.1 Injury to prior rights

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 water is delivered via the Delta-Mendota Canal (DMC). The RMC members include landowners and water users along the San Joaquin River.

The protest states that, pursuant to Article 7 of the Settlement, no adverse third party impacts were to occur as a result of implementation of the SJRRP. The Exchange Contractors/RMC further elaborate on provisions of the Settlement Act that they say reflect the commitment that there will not be impacts to third parties.

The relevant inquiry before the State Water Board in considering the proposed change is whether the change would injure any legal user of water. Article 7 of the Settlement memorializes the settling parties' belief that the implementation of the Settlement will not have a material adverse effect on third parties.[4] Section 10004 of the Settlement Act generally provides that nothing in the Act "shall modify or amend the rights and obligations" of the parties to any existing water service, repayment, purchase, or exchange contract or under the Exchange Contract held by the Exchange Contractors. (Settlement Act, § 10004(g), (j).) Nor shall implementation of the Settlement result in involuntary reduction in contract water allocations to CVP long-term contractors, other than Friant Division long-term contractors. (*Id.*, § 10004(f).) Nothing in the Settlement Act, however, preempts state law. (*Id.*, § 10006(b).) This Order is protective of existing contract rights, to the extent that such rights are exercised in accordance with applicable law, including any requirements imposed at the Delta pumps. Thus, the scope of the State Water Board's "no injury" inquiry is consistent with provisions of the Settlement Act prohibiting interference with contractual rights.

The Exchange Contractors assert that they experienced the following injuries as a result of the Water Year 2010 operations under Order WR 2009-0058-DWR:

##### 6.1.1a Water quality

*Objection:*

The DMC and portions of the Mendota Pool experienced water quality degradation as a result of reduced deliveries from the DMC to the Mendota Pool in April 2010. Under normal operations, all demands in the Mendota Pool are met through deliveries from the DMC. In April 2010, Reclamation met demands using surplus SJRRP flows into the Mendota Pool. Consequently, little or no fresh water was introduced into the lower DMC. This degraded water quality resulted in: (i) High Electrical Conductivity (EC) water quality was delivered to water users taking direct deliveries from the lower DMC and Mendota Pool, (ii) DMC pumpers were precluded from pumping into the DMC for credit to supplement their water supply. There is a water quality limitation of 700 EC. When this level is exceeded, no pumping is allowed; and (iii) Mendota Pool pumpers were cut off of their water supply due to water quality thresholds being exceeded. This resulted in a loss of water supply.

[4] Section 7 of the Settlement states, in part: "The Parties neither intend nor believe that the implementation of this Settlement will have a material adverse effect on any third parties or other streams or rivers tributary to the San Joaquin River."

*Response:*

Water flowing through Mendota Pool can be separated into two elements: (1) water dedicated pursuant to Water Code Section 1707, which flows through the north east side of Mendota Pool (opposite the DMC) relatively unchanged regarding total dissolved solids (TDS) or EC (a surrogate for TDS), and (2) the DMC flows having EC up to 1,000 µmhos, which tend to blend poorly or stagnate in the vicinity of the DMC. (Contact Report of Kathy Mrowka, August 25, 2010.) During 2010, high EC in the DMC and near the DMC outlet (San Joaquin River at Mendota Pool) occurred when Reclamation was not using the DMC to provide water obtained from the San Joaquin-San Francisco Bay Delta (Delta)[5] to its contractors. CCID, San Luis Canal Company and Columbia Canal Company received the higher quality water San Joaquin River water identified in (1) above. The only member of the Exchange Contractors with a diversion facility in the area where elevated salinity may have occurred is Firebaugh Canal Water District (Firebaugh). Firebaugh takes water from the San Joaquin River at Mendota Pool near Fresno Slough. (Contact Report of Kathy Mrowka, September 28, 2010.) The objection does not indicate whether Firebaugh experienced any appreciable change in water quality that would result in legal injury. As discussed below, however, this order imposes a condition requiring the development of additional information regarding water quality effects on Mendota Pool and other locations, and possible response mechanisms.

Reclamation's actions under Order WR 2009-0058-DWR did not cause the water quality impairment. The Exchange Contractors/RMC have not identified any legal obligation to them that would require Reclamation to make deliveries from the DMC if instead sufficient water is available from the San Joaquin River to meet the needs of the contractors at Mendota Pool. Nor have they identified any legal obligation that would require Reclamation to provide Delta water for blending poor quality return flow discharges of persons located in the San Joaquin River watershed.

The Exchange Contractors indicate that water users taking direct deliveries from the DMC and Mendota Pool received water elevated with respect to salinity. Further, the Exchange Contractors indicate that DMC and Mendota Pool Pumpers were harmed because they were precluded from continuing to pump high EC water into the DMC and Mendota Pool while EC thresholds were exceeded in the DMC and Mendota Pool.

The Exchange Contractors/RMC have not demonstrated that they will not receive the water quality to which they are entitled under their contracts or other water rights. Accordingly, the State Water Board will not require Reclamation to provide flows for dilution purposes when it is not otherwise operating the DMC. However, the State Water Board notes that Reclamation temporarily assisted in addressing the water quality impairment issue during April of 2010. Additional information would be useful in order to address any similar future events to ensure that there is no injury. Accordingly, Reclamation will be required to evaluate the contribution of Interim Flows to high salinity conditions in the DMC, Mendota Pool, and Fresno Slough and identify possible response mechanisms.

#### 6.1.1b Water supply

*Objection:*

The Exchange Contractors allege potential impact to their water supplies, as described in a letter from Paramount. The referenced letter from Paramount is a July 23, 2010 comment letter on the 2011 Supplemental EA[6]. The letter makes general reference to prior rights of Paramount, but does not provide specific information regarding such rights. Paramount asserts that it has historically diverted flood flows for irrigation use and groundwater recharge at New Columbia Ranch. Under the proposed project, however, Reclamation would not release interim flows in addition to flood flows in

[5] The DMC is generally used to convey water south from the pumps in the South Delta to Mendota Pool.

[6] As discussed below in Section 6.5, Paramount also submitted a comment letter, but not a protest, to the State Water Board on the proposed temporary change.

periods when flood flows would satisfy all or part of the targets identified in Exhibit B of the Settlement. In essence, Reclamation would recharacterize flood flows as interim flows, which could not be diverted by downstream water users. The ultimate effect of this recharacterization would be to reduce Paramount's available water supply.[7]

*Response:*

Reclamation manages storage in Millerton Lake in accordance with the Army Corps of Engineers Reservoir Operations Manual. Millerton Lake has a dedicated flood management pool of up to 170,000 af during the October through March flood season. (Final FONSI/MND, p. 3-119.) In preparation for potential winter flood events, water is released from storage to make room for flood flows. This is referred to as "flood flows", but in actuality it is controlled reservoir releases. This is different than: (1) uncontrolled flows during actual flood events, and (2) inflow routed through the reservoir in a regulatory manner. Reclamation limited its petitions to the transfer of water that has been stored in Millerton Lake under its permits. As discussed above, however, it is not enough for interested persons to claim that they will receive less water than they historically received; they must demonstrate that they have a legal entitlement to the amount of water claimed. The Exchange Contractors/RMC and Paramount have not documented both that they have a contract with Reclamation for these reservoir releases and that they will receive less water than allowed under such contract. Therefore, there is no basis to support a finding of injury to a legal user of water.

Nor does the public interest support a condition requiring water users to be able to continue to divert historical diversions above any legal entitlements. To the contrary, the public interest in this action supports operation of the interim flows project in accordance with the Settlement, the Settlement Act, and in keeping with Fish and Game Code 5937. In accordance with Fish and Game Code 5937, Reclamation must allow sufficient water to pass through the Friant Dam to maintain fish populations in good condition in the main stem of the San Joaquin River below Friant Dam.

### 6.1.2 Compliance with terms of Order 2009-0058-DWR

The Exchange Contractors/RMC assert that Reclamation failed to meet the terms of Order WR 2009-0058-DWR, to the detriment of landowners downstream of Friant Dam. The State Water Board will consider these claims to the extent that Reclamation's purported failure to comply with terms and conditions adopted for the protection of legal users of water and fish, wildlife and instream uses could lead to adverse impacts resulting from this year's proposed change. Information is provided below to address concerns that the parties have raised. The Exchange Contractors/RMC's examples of failure to comply with Order WR 2009-0058-DWR include:

#### 6.1.2a Flow monitoring

*Objection:*

Order WR 2009-0058-DWR required Reclamation to monitor river stage and flow conditions at seven locations between Friant Dam and the Merced River. The flow ratings for monitoring stations 2 through 6 are inaccurate and not reliable for use in operations.

*Response:*

On August 30, 2010, State Water Board staff reviewed the Reclamation web site to determine whether flow ratings had been posted for the monitoring stations. Daily flow data were available for all but one station, San Joaquin River near Washington Road. It is apparent that this monitoring station is in working condition, though, because data from this gage are cited in the Exchange

[7] Paramount also asserts that, as an overlying landowner, it has the right to any increased groundwater under its property resulting from the interim flow project. In making its assertion, Paramount does not claim that any injury to its rights as a groundwater user and the State Water Board will not consider the issue further.

Contractors/RMC objection (see Exchange Contractors/RMC's Objection Tabs 2 and 3). The Exchange Contractors/RMC noted that the DWR established the gage, but had not yet established a stage versus flow curve. (see Exchange Contractors/RMC's Objection Tab 2, p. 2) Though this allows reporting of stage data, it does not allow reporting of flow data. DWR operates most of the stream gages required by Order WR 2009-0058-DWR and has evaluated the actions needed to complete the monitoring network. (San Joaquin River Restoration Project, Stream Gage Installation and Operation and Maintenance Project Initial Study and Final Mitigated Negative Declaration, DWR, February 2009.) DWR will be providing oversight on any gages operated by Reclamation or the U.S. Geological Survey. (*Id.*) It appears Reclamation made a good faith effort to comply with the Order WR 2009-0058-DWR, although additional work is needed to report flow using the Washington Road gage.

The State Water Board emphasizes the need to maintain all of the monitoring stations. This order includes a requirement to report any non-working flow monitoring stations, maintain records in accordance with U.S. Geological Survey standards, and timely submit a plan for restoration of any non-working station.

#### 6.1.2b Seepage

*Objection:*

Order WR 2009-0058-DWR, Condition 8, required Reclamation to establish a Seepage Monitoring and Management Plan (SMMP). Reclamation was to install monitoring wells, establish groundwater elevation thresholds and only release interim flows consistent with the SMMP. While some wells were installed, others still need to be installed. None of the wells have established elevations. Reclamation did communicate that they were establishing shallow groundwater depth thresholds (as opposed to elevation thresholds) at 6 feet below ground surface. This alternative threshold approach does not meet the existing permit condition of determining threshold elevations and is not sufficient to protect landowners from seepage or the agencies and landowners that depend on the levees from flooding from river flows, since they cannot be used in predictive models. Also, the SMMP was not fully implemented in that Reclamation allowed the groundwater depth threshold of 6 feet to be exceeded.

Reclamation did not timely install monitoring wells and equipment in Water Year 2010. Also, Reclamation did not perform site field level assessments at the 25 seepage-impacted locations reported to Reclamation by CCID.

*Response:*

Condition 8 of Order WR 2009-0058-DWR required installation of groundwater monitoring wells at 10 river locations. The condition requires implementation of the SMMP. Implementation requires installation of an unspecified number of monitoring wells to evaluate seepage impacts and establishment of groundwater elevation thresholds to determine when impacts to agricultural lands or levee stability are imminent. Flow releases were to be made in accordance with the SMMP.

Reclamation installed 93[8] seepage monitoring wells in the properties along the San Joaquin River and monitors 5 additional wells owned by CCID. (Reclamation email from Alicia Gasdick to Kathy Mrowka, September 9, 2010.) Reclamation plans to install an additional 19 wells in fall 2010 in response to landowner concerns and to provide calibration data for regional groundwater models. (Ibid.) As stated in the SMMP, access limitation and information from monitoring, analysis and trouble spots identified by local landowners determines the final location of groundwater transects and wells developed with the specific intent of monitoring potential groundwater seepage.

[8] Reclamation installed 64 wells, nine piezometers, five hand-auger soil borings, in addition to re-monitoring 15 wells from the 2002 Pilot Project, and monitoring five CCID wells. Reclamation surveyed all 64 wells, including the top of casing and ground surface elevations.

As part of the SJRRP, monitoring wells were installed on public lands at several transects along the San Joaquin River in the Restoration Area to identify groundwater level responses to river flows. Groundwater levels observed in these wells are used in determining when to reduce flow releases from Friant Dam, as occurred in April 2010. Following installation of each monitoring well, groundwater elevation thresholds were developed by Reclamation in consideration of nearby land uses, known groundwater and subsurface conditions, and other available information. In general, groundwater depth thresholds are classified in three ranges: an acceptable level at which groundwater levels are not expected to affect agricultural production; a potential buffer zone indicating an increased likelihood that seepage could affect agricultural production without flow modification; and a threat zone representing groundwater levels that affect agricultural production. (2011 Supplemental EA pp. 2-16, 2-17.) The threat zone is determined based in part on the rooting depth associated with any crops located near the monitoring well. (*Id.*, p. 2-17.)

Reclamation manually measures groundwater elevations in the majority of the wells weekly. Wells in Reach 1 and Reach 5 are manually measured monthly. More than 30 monitoring wells contain dataloggers recording hourly data. Five wells with dataloggers are telemetered in real-time to CDEC and available on the Internet. Also, Reclamation posts a weekly groundwater report to the SJRRP website with data for key wells. (Reclamation email from Alicia Gasdick to Kathy Mrowka, September 9, 2010.)

As of the week ending April 17, 2010, manually monitored groundwater wells showed three wells above the acceptable thresholds but within the buffer zone and one well in the threat zone. Reclamation discussed this well with the landowner and both parties agreed to let groundwater levels in the well potentially rise to 5 feet below ground surface. (2011 Supplemental EA, p. 2-20.)

The objection indicates that Reclamation allowed the groundwater depth threshold of 6 feet to be exceeded in multiple instances within CCID's boundaries. The objection indicates that the threshold was exceeded at either 21 or 25 wells. (Exchange Contractors Objection, tab 2, pp 8, 9, 19.) CCID states that the groundwater at 13 of the sites has risen to the level that could damage the crops grown.

In evaluating this issue, it is useful to know how flow is routed. The Sand Slough Control Structure is used to divert flows from the San Joaquin River to the Eastside Bypass. If water remains in the San Joaquin River, it must flow from Reach 4A to Reach 4B via the San Joaquin River Headgates. The headgates have not been opened for many years, including during the 1997 floods. (2010 Final EA/IS, p 3-121.)

On February 1, 2010, the WY 2010 SJJRP flows resumed. The Exchange Contractors provided data on the depth to groundwater on April 7, 2010 and June 28, 2010. (Exchange Contractors Objection, tab 2) Data interpretation is difficult, however, due to the following factors: (i) the Sand Slough Control Structure was plugged with silts and aquatic vegetation, resulting in water backing up at flows as low as 50 cfs, creating a high water surface relative to the surrounding ground (id, pp. 3, 4.); (ii) data documenting depth to groundwater in the absence of the SJJRP flows were not provided for the 25 wells; (iii) data on whether the 25 wells typically show an increase, decrease or are stable in response to irrigation were not provided, (iv) no information was provided on whether the irrigators were applying water for the purpose of leaching salts down the soil column, and (v) the natural channel of the San Joaquin River has not been maintained in this vicinity, necessitating use of the Eastside Bypass for the SJJRP flows. Given these issues, it is difficult to determine responsibility for the high groundwater levels. Reclamation agreed to continue the SMMP. (Petitions, p. 7; Reclamation email September 2, 2010.)

Reclamation appears to have complied with Condition 8 of Order WR 2009-0058-DWR. However, based on information gathered during WY 2010 operations, the SMMP reporting criteria should be further defined and an opportunity to comment on thresholds provided. The order is conditioned accordingly.

#### 6.1.2c Groundwater elevation

*Objection:*

Order WR 2009-0058-DWR, Condition 9, required Reclamation to conduct real time evaluations of seepage impacts when flows exceeded 475 cubic feet per second (cfs). In April 2010, Reclamation was informed of seepage impacts at 25 sites. In response, Reclamation reduced flows from 750 cfs to 350 cfs for two weeks. The Exchange Contractors assert that the groundwater elevations did not drop to non-damaging levels because two weeks is not sufficient to permit the groundwater to recede. Even at 50 cfs, groundwater levels continued to remain at elevated levels above the 6-foot thresholds.

The Exchange Contractors state that flows in lower Reach 4A remained at 4.0 to 4.5 feet depth after flows were reduced to a base level of around 40 cfs to 50 cfs near the end of June 2010. (Exchange Contractors Objection, tab 2, p. 2.) The Exchange Contractors attribute this to the elevation of the Sand Slough Control Structure and the East Side Bypass channel. The structure is a 15-foot long partial flume fitted with weir board guides on the upstream side, and a concrete low flow containment levee. The center bays are not efficient due to impacts from silt buildup and aquatic plants. Only the outer bays are partially open.

*Response:*

Reclamation complied with the Order WR 2009-0058-DWR, Condition 9, requirement regarding flow monitoring and flow reduction. However, project operation was complicated due to the existing condition of the Sand Slough Control Structure and nearby lack of channel capacity. Modification of the channel capacity below the Sand Slough Control Structure to 475 cfs and modification of the structure itself to provide for fish passage and appropriate routing of water are identified in the Settlement Act as channel improvements to be constructed by December 31, 2013. Reclamation should prioritize this construction project. Inasmuch as this situation is scheduled to be remedied, this Order will continue to require Reclamation to actively monitor groundwater levels and adjust interim flows. Reclamation intends to continue its implementation of the SMMP. (Petition, p. 7; Reclamation email from Alicia Gasdick to Kathy Mrowka, September 2, 2010.)

### 6.1.3 Seepage monitoring and mitigation plan

*Objection:*

The Exchange Contractors/RMC assert that no water should be authorized for release pursuant to the petitions below the Mendota Pool until such time as a comprehensive seepage monitoring and mitigation plan has been implemented.

*Response:*

Reclamation conducted an analysis of non-damaging flow capacities in the San Joaquin River from Friant Dam to the Merced River confluence. This assessment considered direct inundation from Interim Flows, rise of the shallow groundwater table and associated water logging of crops and salt mobilization in the crop root zone, and levee instability resulting from through-levee and under-levee seepage. Sources of information included the Flood Control Manual (Reclamation Board, 1967), reports funded by local landowners (RMC, 2003, 2005, and 2007), landowner coordination meetings (Mooney, 2009), hydraulic modeling for Interim Flows (MEI, 2008), other studies of the flood control system (ACOE, 2002; Hedger, 1960; McBain and Trush, 2002; MEI, 2002; and Moss, 2002), and historical measured data (USGS, DWR, and Reclamation Gage Records). The non-damaging capacity is the minimum of the hydraulic capacity or stage where seepage impacts occur. Based on the analysis, Reclamation determined non-damaging channel capacity as follows:

- Reach 1 and Reach 2A: 8,000 cfs based on hydraulic capacity
- Reach 2B: 1,300 cfs based on landowner communication
- Reach 3: 1,300 cfs based on landowner communication
- Reach 4A: 3,300 cfs based on hydraulic capacity
- Reach 4B: unknown and assumed zero in reach 4B1
- Reach 5: greater than 8,000 cfs based on hydraulic capacity

Reclamation has proposed in the SMMP to limit incremental increases in Interim Flow releases from Friant Dam to provide the ability to observe system response. (WY 2010 EA/IS, Appendix D,)

Moreover, under the Settlement Act, Reclamation is prohibited from exceeding existing downstream channel capacities. Section 10004(h)(2)(B) of the Settlement Act provides authorization for the Secretary of the Interior (Secretary) to release flows to the extent that such flows would not exceed existing downstream channel capacities. Section 10004(h)(3) directs the Secretary to reduce interim flows to the extent necessary to address any material adverse impacts to third parties from groundwater seepage caused by such flows that the Secretary identifies based on the monitoring program of the Secretary.

A condition has been included in the order to prohibit Reclamation from exceeding the channel capacities.

### 6.1.4 Private property and facility access

*Objection:*

The Exchange Contractors/RMC request that Reclamation be required to enter into coordinated operations and use agreements with the CCID and San Luis Canal Company (SLCC) to ensure that neither CCID nor SLCC incurs any costs associated with the SJRRP that are not otherwise occurred on a voluntary basis and provide for financial assistance to assist with routine operations by CCID and SLCC that benefit Reclamation in its implementation of the SJRRP. In fiscal year 2010, Reclamation issued a grant for operation of Sack Dam to SLCC's operations entity for increased operations and maintenance cost due to interim flows. (Reclamation email from Alicia Gasdick to Kathy Mrowka, September 2, 2010.) A grant was also offered to CCID, but CCID did not complete the grant request package.

The Exchange Contractors/RMC also request that Reclamation enter into an operations agreement with the Levee District that provides Reclamation with the right to use rights-of-way managed by the Levee District for purposes of implementing the SJRRP. The agreement should include a provision that the Levee District will not incur costs except on a voluntary basis.

*Response:*

The Exchange Contractors/RMC have not provided specific information demonstrating that operation and use agreements are necessary to prevent injury to its member agencies as legal users of water. Nonetheless, it is in the public interest to ensure that the proposed change will not adversely affect flood channel operations and maintenance. (Wat. Code, § 1707, subd. (b).) Accordingly, this order requires Reclamation to prepare an operations and maintenance agreement, or comparable funding mechanism, and make the agreement or other funding mechanism available to the CCID, SLCC, and the Levee District. Moreover, information about operations will help to ensure that the interim flows program subject to this order is operated in a manner to avoid avoidable adverse impacts. Accordingly, this order requires Reclamation to maintain a public website to provide operations data, including daily operations information and the daily flow regime.

### 6.1.5 Damage claims

*Objection:*

The Exchange Contractors/RMC request that Reclamation establish an administrative process that permits landowners and other entities financially impacted by the SJRRP to easily submit claims and evidence of harm.

*Response:*

The Exchange Contractors/RMC have not submitted sufficient information to support a finding that the proposed change will injure legal users of water. The State Water Board cannot place conditions on the temporary change to avoid or mitigate effects that are not caused by the temporary change. (*Id.*, § 1727, subd. (e).)

### 6.1.6 General objections and concerns

*Objection:*

The Exchange Contractors/RMC's protest states that it is inappropriate for Reclamation to seek a one-year temporary transfer for a project that, after commencement of interim flows, will be continuously operated. The contractors also allege that the quantity of water involved is large and accordingly should not be the subject of a short-term transfer petition.

*Response:*

As discussed herein, the interim flows project covered by Reclamation's petitions meets the criteria for a temporary transfer. Reclamation has requested temporary authorization for the second year of a program to restore streamflow in the San Joaquin River. The Water Code does not require petitioners for temporary change to make a diligent effort to seek approval for the proposed changes under other provisions of the Water Code (as is required for temporary urgency changes and temporary permits) or prohibit the approval of a series of similar temporary changes. Accordingly, the proposed temporary change is not in violation of Water Code sections 1725 et seq. Moreover, the Water Code does not limit the amount of water that may be transferred under section 1725 or 1707 to a particular numeric quantity. Instead, the amount of water is relevant only to determine if Reclamation has an entitlement to the use of the water pursuant to water right Permits 11885, 11886, and 11887 and in making the necessary findings required by statute.

### 6.1.7 Water quality issues

To avoid potential harm to legal users of water resulting from adverse water quality impacts, Order WR 2009-0058-DWR required Reclamation to conduct water quality monitoring to determine whether there were adverse impacts associated with the Interim Flows Program.

*Objection:*

In regards to Order WR 2009-0058-DWR, the Exchange Contractors/RMC raised water quality considerations regarding ongoing operations and the salt loading associated with such operations.

*Response:*

In its petitions, Reclamation has requested a term requiring implementation of the 2009-2013 Interim Flow Release Program, Water Quality Monitoring Plan in Appendix E of the WY 2010 EA/IS. Reclamation has further agreed to implementation of a water quality response plan. This order requires Reclamation to continue implementation of the Water Quality Monitoring Plan and a water quality response plan. (Reclamation email from Alicia Gasdick to Kathy Mrowka, September 2, 2010 email.)

## 6.2 San Luis and Delta-Mendota Water Authority (Authority)

*Objection:*

The Authority, on behalf of its 29 member agencies[9], objects to the changes on the basis of public interest considerations and injury to their rights. The Authority also filed a protest on environmental grounds, but the supporting documentation for the second protest was identical to the information in the first protest. No environmental issues were identified in the second protest.

*Response:*

The Authority's members have historically received deliveries of Central Valley Project (CVP) water for irrigation along the San Joaquin Valley's West side and wetlands situated in the Pacific Flyway. The Authority did not provide specific information about its claims of right to use water beyond general references to its contracts and senior rights. Actual and threatened harm are said to result from the following:

### 6.2.1 Monitoring

*Objection:*

Order WR 2009-0058-DWR, Condition 10, requires Reclamation to coordinate its operations on a daily basis with CCID and SLCC when flows enter Mendota Pool. The Authority asserts that there were inadequate flow measurements to account for the flows under the SJRRP entering into the Mendota Pool, and to determine the amount of those flows available to be recaptured and recirculated. To properly account for the flow under the SJRRP, Reclamation must be required to install and maintain continuous monitors at Gravelly Ford, below the Bifurcation Structure, Sack Dam and Washington Road and publish the data on its web site no less than daily.

*Response:*

On August 30, 2010, State Water Board staff reviewed the Reclamation web site to determine whether flow ratings had been posted for the monitoring stations. Daily flow data was available for all but one station, San Joaquin River near Washington Road. As noted in section 6.1.1c, the gage station has been installed but the stage versus flow curve is still being developed. As explained in that section, monitoring conditions are imposed in this order to avoid injury to legal users of water. The Authority did not provide evidence of any injury or other basis for revising prior Condition 10.

[9] The Authority's member agencies are: Banta-Carbone Irrigation District, Broadview Water District, Byron Bethany Irrigation District (CVPSA), Central California Irrigation District, City of Tracy, Del Puerto Water District, Eagle Field Water District, Firebaugh Canal Water District, Fresno Slough Water District, Grassland Water District, Henry Miller Reclamation District #2131, James Irrigation District, Laguna Water District, Mercy Springs Water District, Oro Loma Water District, Pacheco Water District, Pajaro Valley Water Management Agency, Panoche Water District, Patterson Irrigation District, Pleasant Valley Water District, Reclamation District 1606, San Benito County Water District, San Luis Water District, Santa Clara Valley Water District, Tranquility Irrigation District, Turner Island Water District, West Side Irrigation District West Stanislaus Irrigation District and Westlands Water District.

### 6.2.2 Water quality

This issue was analyzed in section 6.1.1a, and that discussion is incorporated herein.

### 6.2.3 Displacement of CVP and/or SWP Delta pumping capacity – No injury to any legal user of water

*Objection:*

The Authority asserts that using the CVP and/or SWP facilities to recapture the SJRRP flows in the Delta and return water to San Joaquin River contractors could affect use of the facilities by others, due to limited capacity at the pumps. Thus, the Authority requests that Reclamation be required to recapture the SJRRP flows at the CVP and/or SWP pumping facilities after all water available to the Authority member agencies is pumped, including Project and non-Project water available to the Authority's members through transfer or exchange. The Authority's proposed permit condition would make re-diversion of SJRRP flows junior to all existing and future projects of the Authority's member agencies.

*Response:*

Reclamation has established a priority system for its contracts. Generally, the most senior contracts are the Exchange Contracts, followed by Settlement Contracts. All other water service contracts are junior to these two categories of contracts. The remaining regular contracts are prioritized based on the purpose of use, with municipal and industrial contracts receiving priority over agricultural contracts. Consequently, the Authority is requesting that the State Water Board re-prioritize Reclamation's CVP contracts by allocating Delta pumping capacity to contracts that would otherwise have a lower priority. As discussed above, the State Water Board must consider whether the proposed change will injure any legal user of water. The Authority has not demonstrated that it will receive less water to which it is legally entitled and thus the State Water Board will not interfere with Reclamation's determinations regarding the priority of the contracts for use of Delta facilities.[10] Nonetheless, to ensure that the proposed changes will not affect any legal user of water, this order will require Reclamation to account for its deliveries at the CVP and SWP pumping facilities.

## 6.3 California Fisheries and Water Unlimited (CFWU)

*Objection:*

CFWU submitted a protest alleging violations of law by the State Water Board and Reclamation for failing to require mandatory daily flow requirements from Friant Dam into the San Joaquin River since the permits were issued.

*Response:*

Water Code section 1727, subdivision (d) prohibits the State Water Board from modifying any term or condition of the petitioner's permit or license, including those terms that protect other legal users of water, fish, wildlife, and other instream beneficial uses, except as necessary to carry out the temporary change. Water Code section 1727, subdivision (e) prohibits the State Water Board from denying or placing conditions upon a temporary change to mitigate effects that are not caused by the temporary change. Thus, the State Water Board will not modify or amend Reclamation's permits, or place conditions upon this temporary change to mitigate alleged affects of Reclamation's ongoing operations as a condition of approval of the petition.

[10] DWR is not a co-petitioner. Accordingly, this order only imposes conditions on Reclamation's operations under the proposed temporary change; it does not make any findings regarding operation of SWP facilities.

### 6.4 Department of Fish and Game (DFG)

*Comment:*

DFG commented that a key guidance document for implementation of the Settlement Act is the restoration program's Fish Management Plan. The comment letter was received by both email and regular mail after the close of the objection period. The Fish Management Plan recommends: (a) that temperatures in Millerton Lake be monitored to assess the effects of the increased flow releases, and (b) that ramping rates be developed for interim flow releases to protect fish, instream habitat, and water quality downstream of Friant Dam. DFG also recommended that a water quality monitoring plan be prepared.

*Response:*

To ensure that fish, wildlife and other instream uses are not unreasonably affected, this order requires the measures requested by DFG.

### 6.5 Paramount Farming Company (Paramount)

*Comment:*

Paramount submitted a letter noting that it was not submitting a formal protest but wanted to comment on various aspects of the pending petitions. Paramount: (1) encouraged the State Water Board to condition the proposed temporary transfer on terms requiring groundwater seepage and flow monitoring and maintenance similar to those required in Order WR 2009-0058-DWR; and (2) requested the State Water Board to make clear that the proposed transfers involve water that otherwise would have been consumptively used or stored during 2011 and that they are made subject to existing water rights.

*Response:*

(1) As discussed above, similar terms have been included in this order; and (2) this order finds that the water proposed for transfer pursuant to this order would be consumptively used or stored in the absence of the proposed temporary change, and includes a term prohibiting the transfer from injuring legal users of water.

### 6.6 Lower San Joaquin Levee District (Levee District)

*Comment:*

The Levee District: (1) commented[11] on the adequacy of the environmental documents for the SJRRP regarding levee maintenance activity, car traffic and the need for Reclamation to obtain access easements; (2) seeks indemnification from third party liability from Reclamation and; and (3) requests that the Water Rights Order issued as a result of the pending petitions includes a requirement that Reclamation enter into an agreement with the Levee District, as a condition of the rediversion of the interim flows at the Sand Slough Control Structure, for the Levee District's operation, inspection and maintenance of the flood control facilities.

*Response:*

(1) As explained above, the proposed change is exempt from CEQA and the State Water Board will not consider CEQA-related issues further, except as they relate to the proposed change and the Board's required findings under Water Code section 1707 and 1725 et seq.; (2) Reclamation responds that it legally cannot enter such an agreement. The Levee District's desire to obtain such an indemnification agreement is beyond the State Water Board's purview in considering the proposed change, which is

[11] The comment letter was received by mail after the close of the objection period.

largely limited to preventing injury to legal users of water and avoiding unreasonable impacts on fish and wildlife. Moreover, under the circumstances presented here, where Reclamation is not using downstream channels for conveyance in excess of natural flows, but is instead releasing lesser amounts for the benefit of fish and wildlife, it would be contrary to the public interest to require Reclamation to provide indemnification. Reclamation is under no legal duty to divert water for the purposes of reducing costs to districts responsible for levee maintenance, and Reclamation has a legal duty to bypass or release sufficient water to maintain fish in good conditions; and (3) the Levee District requests that the order issued as a result of the pending petitions includes a requirement that Reclamation enter into an agreement with the Levee District, as a condition of the rediversion of the interim flows at the Sand Slough Control Structure, for the Levee District's operation, inspection and maintenance of the flood control facilities. This order requires Reclamation to obtain any necessary access agreements in order to proceed with the project. In addition, as discussed above, this order requires Reclamation to prepare an operations and maintenance agreement, or comparable funding mechanism, and make the agreement or other funding mechanism available to the Levee District.

### 6.7 Central Valley Flood Protection Board (CVFPB)

*Comment:*

In its comments,[12] the CVFPB explained that its primary concern is that the restoration program does not compromise the flood safety features of the San Joaquin River and Eastside and Mariposa Bypasses. Specifically, the CVFPB is concerned that restoration flows will preclude maintenance of these channels for flood protection purposes and that maintenance costs will increase in the long term. It identifies Reclamation's inability to indemnify the Levee District as the main obstacle in reaching a maintenance agreement.

*Response:*

As discussed above, this order requires Reclamation to prepare an operations and maintenance agreement, or comparable funding mechanism, and make the agreement or other funding mechanism available to the CCID, SLCC, and the Levee District. In addition, this order requires Reclamation to consult with the CVFPB, DWR, or any other appropriate agency to ensure that the proposed change will not compromise the flood safety features of San Joaquin River and Eastside and Mariposa Bypasses.

## 7. FINDINGS

### 7.1 Transfer involves water that would have been consumptively used or stored and will not increase the amount Reclamation is entitled to use

Before approving a temporary change due to a transfer or exchange of water, the State Water Board must find that the transfer would only involve the amount of water that would have been consumptively used or stored by the permittee or licensee in the absence of the proposed temporary change. (Wat. Code, §§ 1725 - 1726.) In addition, before approving a change under section 1707, the State Water Board must find that the proposed change will not increase the amount of water the person is entitled to use. (Wat. Code, § 1707, subd. (b)(1).)

Absent the proposed transfer, the water that is the subject of the transfer 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 Division service area. In light of the above, I find in accordance with Water Code section 1726, subdivision (e) that the water proposed for transfer pursuant to this order would be consumptively used or stored in the absence of the proposed temporary change. Moreover, the proposed change will not increase the amount of water that Reclamation is entitled to use.

[12] The comment letter was received by both email and regular mail after the close of the objection period.

### 7.2 No injury to other legal users of water

Before approving a temporary change due to a transfer or exchange of water, the State Water Board must find that the transfer would not injure any legal user of the water during any potential hydrologic condition that the Board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of the water, or reduction in return flows. (Wat. Code, § 1727, subd. (b)(1).) Before approving a change under Water Code section 1707, the State Water Board must find that the change will not unreasonably affect any legal user of water. (*Id.*, § 1707, subd. (b)(2).) A discussion of potential harm to other legal users of water is found in the responses to the objections, Section 6 above. As conditioned, I find that the proposed temporary change would not injure any legal user of the water during any potential hydrologic condition that the State Water Board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of the water, or reduction in return flows, or otherwise unreasonably affect a legal user of water.

### 7.3 No Unreasonable Effect Upon Fish, Wildlife, or Other Instream Beneficial Uses

Before approving a temporary change due to a transfer of water, the State Water Board must find that the proposed change would not unreasonably affect fish, wildlife, or other instream beneficial uses. (Wat. Code, § 1727, subd. (b)(2).) The temporary transfer and 1707 change have been requested in order to re-establish flows below Friant Dam and re-water the stream system for the purpose of protecting and maintaining salmonids. The FONSI/MND considered possible effects upon wildlife and other instream beneficial uses and determined that the instream flows to be dedicated will not have a significant effect upon wildlife resources, or other instream beneficial uses. In its comments on the petitions, DFG suggested measures to address the management of reservoir and instream flow releases. Accordingly, I find that, as conditioned, the proposed change will not unreasonably affect fish, wildlife, or other instream beneficial uses.

## 8. STATE WATER RESOURCES CONTROL BOARD'S DELEGATION OF AUTHORITY

On September 18, 2007, the State Water Board adopted Resolution 2007-0057, delegating to the Deputy Director for Water Rights the authority to act on petitions for temporary change if the State Water Board does not hold a hearing. This order is adopted pursuant to the delegation of authority in section 4.4.2 of Resolution 2007-0057.

## 9. CONCLUSIONS

The State Water Board has adequate information in its files to make the evaluation required by Water Code sections 1707 and 1725.

The State Water Board concludes that, based on the available evidence:

1. The proposed change would not injure any legal user of water, during any potential hydrologic condition that the board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of water or return flows.
2. The proposed change may be made without unreasonable effect upon fish, wildlife, or other instream beneficial uses.
3. The proposed change will not increase the amount of water Reclamation is entitled to use.
4. The proposed change will not unreasonably affect any legal user of water.
5. The proposed transfer involves only an amount of water that would have been consumptively used or stored in the absence of the temporary change.

## ORDER

**NOW, THEREFORE, IT IS ORDERED THAT** Reclamation's petitions for temporary transfer and dedication of water for instream purposes of 389,355 acre-feet pursuant to Water Code sections 1707 and 1725 are approved for a period of one year, from October 1, 2010 to September 30, 2011, subject to prior vested water rights.

All existing terms and conditions of Permits 11885, 11886 and 11887 remain in effect, except as temporarily amended by the following provisions:

1. The following points of rediversion are temporarily added to the permits. All coordinates in this Order are in California Coordinate System of 1983, Zone 3:

   A. Mendota Dam – North 1,745,350 feet and East 6,598,943 feet, being within the SE ¼ of NE ¼ of Section 19, T13S, R15E, MDB&M, including intakes to the following canals:

      i. Main Canal – North 1,744,396 feet and East 6,598,937 feet, being within the SE ¼ of Section 19, T13S, R15E, MDB&M.
      ii. Outside Canal – North 1,741,896 feet and East 6,599,689 feet, being within SE ¼ of Section 19, T13S, R15E, MDB&M.
      iii. Columbia Canal – North 1,746,420 feet and East 6,605,595 feet, being within NE ¼ of Section 20, T13S, R15E, MDB&M.
      iv. Helm Ditch - North 1,745,022 feet and East 6,598,787 feet, being within NE ¼ of Section 19, T13S, R15E, MDB&M.
      v. Firebaugh Water District Canal – North 1,741,821 feet and East 6,599,844 feet, being within SE ¼ of Section 19, T13S, R15E, MDB&M.

   B. Intake to the Arroyo Canal – North 1,816,307 feet and East 6,561,446 feet, being within SW ¼ of Section 12, T11S, R13E, MDB&M.

   C. Intake to the Sand Slough Control Structure – North 1,862,535 feet and East 6,535,468 feet, being within NE ¼ of Section 31, T9S, R13E, MDB&M, for conveyance through the East Side Bypass.

   D. Along the East Side Bypass – North 1,883,703 feet and East 6,523,784 feet, being within NW ¼ of Section 11, T9S, R12E, MDB&M (at Lone Tree Unit, Merced National Wildlife Refuge).

   E. Intake to the Mariposa Bypass Control Structure, on the East Side Bypass – North 1,895,936 feet and East 6,505,198 feet, being within SE ¼ of Section 30, T8S, R12E, MDB&M.

   F. Along the East Side Bypass – North 1,914,452 feet and East 6,480,299 feet, being within NE ¼ of Section 8, T8S, R11E, MDB&M.

   G. Jones Pumping Plant – North 2,114,400 feet and East 6,248,083 feet, being within SW ¼ of SW ¼ of Section 31, T1S, R4E, MDB&M.

   H. Banks Pumping Plant – North 2,115,990 feet and Eat 6,237,838 feet, being within SW ¼ of Section 35, T1S, R3E, MDB&M.

   I. San Luis Dam – North 1,844,598 feet and East 6,394,093 feet, being within SW ¼ of SE ¼ of Section 15, T10S, R8E, MDB&M.

2. Any San Joaquin River water temporarily stored or routed through San Luis Reservoir shall not be delivered to south-of-Delta contractors other than Friant Division Contractors. The water need not be directly delivered, but can be made available through transfers and exchanges. 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 Order.

3. The following additional place of use is temporarily added to the permits:

   San Joaquin River from Friant Dam to the Sacramento-San Joaquin Delta at the Jones and Banks Pumping Plants. This place of use is added for the dedication of instream flows for the purpose of preservation and enhancement of fish and wildlife resources pursuant to Water Code section 1707. The specific locations of these facilities are identified in item (1).

   Pursuant to this transfer, water may be temporarily used in Fresno, Madera, Merced, Stanislaus, Contra Costa, Alameda, San Joaquin and Sacramento Counties.

4. The following purpose of use is temporarily added to the permits: preservation and enhancement of fish and wildlife.

5. The quantities of water released from Friant Dam for this transfer shall be in addition to that quantity of releases otherwise required to maintain the 5 cubic feet per second requirement at Gravelly Ford and that would be sufficient to provide necessary flow in the river reach below Gravelly Ford pursuant to the obligations of the holding contracts executed by Reclamation.

6. Reclamation shall monitor river stage and flow conditions at the following locations during all periods when water released under this order is 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);
   - above the Merced River confluence (river mile 118); and
   - at the head of the Sand Slough Bypass (river mile 182).

   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. Flows shall also be monitored at the Vernalis gaging station, which is operated by the U.S. Geological Survey and Department of Water Resources (DWR), with provisional monitoring data reported on the California Data Exchange Center website at cdec.water.ca.gov on a daily basis. Flows shall also 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.

In the event that flows have the potential to or will exceed channel capacities, Reclamation shall reduce flows to the last known flows that did not result in exceeding such capacities until such time that Reclamation determines that increasing flows would not exceed channel capacities.

7. Release of transfer water is conditioned upon implementation of the Seepage Monitoring and Management Plan in Appendix D of the Final WY 2010 EA/IS.

   The groundwater monitoring network shall account for subsidence in the area when determining differences in groundwater elevations. Groundwater elevation thresholds shall be established to determine when impacts to agricultural lands or levee stability are imminent. Interim flows shall only be released in a manner consistent with the Plan.

   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, 2011 for public review and comment and shall also provide this information to the Division. In the event that written comments are submitted within 20 calendar days, Reclamation shall consider these comments and provide written responses, which may include revisions to the thresholds, by March 1, 2011. Comments, responses, and then-current thresholds shall be published on the SJRRP website by March 1, 2011, and also provided to the Deputy Director for Water Rights for review, modification and approval. 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, 2011, Reclamation shall publish on the SJRRP website the location of all new monitoring wells installed in 2010 and its plans for installation for additional monitoring wells in 2011, 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 decisions made, within 5 working days of any 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. When interim flows are greater than 475 cfs in Reaches 2A and 3 of the San Joaquin River, Reclamation shall conduct on a daily basis an evaluation of adjacent groundwater levels, river flow and related river stage, and post the information on the SJRPP website (http://www.restoresjr.net/). In the event that groundwater elevations create seepage conditions, Reclamation shall reduce or redirect 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 interim flows).

10. Reclamation shall coordinate its operations with the Central California Irrigation District (CCID) and the San Luis Canal Company (SLCC). When interim 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 interim 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

interim 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 interim 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 interim 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 interim flows. Reclamation shall also notify facility owners that flows authorized under this order are protected under the California Water Code and shall not be diverted or stored unless otherwise authorized by Reclamation consistent with this order.

11. Nothing in this order authorizes the use of, or access to, private property. In carrying out the activities authorized under this order, Reclamation is responsible for obtaining any approvals that may be necessary to access private property.

12. Reclamation shall obtain any necessary access agreements: (a) for use of the Sand Slough Control Structure as a point of rediversion for conveyance through the East Side Bypass and the introduction of flow into the East Side Bypass and Mariposa Bypass; (b) from the Central Valley Flood Protection Board for release of transferred water into the East Side Canal and (c) from the Lower San Joaquin Levee District for operation, inspection and maintenance of flood control facilities.

13. Prior to February 1, 2011, Reclamation shall prepare an operations and maintenance agreement, or comparable funding mechanism, that accounts for increased operations and maintenance costs associated with the Interim Flows Program and provide it to CCID, SLCC, and the Levee District, with a copy to the Deputy Director for Water Rights.

14. This order does not authorize any act that results in damage that could result in imminent failure: (a) to private levees located along the San Joaquin River, (b) to facilities, including levees and related structures, which are part of the San Joaquin River Flood Control Project, or (c) to Mendota Dam. Reclamation shall be responsible for operating under this Order in a way that does not result in such damage.

15. Within 30 days of the effective date of this Order, Reclamation shall consult with the Central Valley Flood Protection Board, Department of Water Resources, or any other appropriate agency to ensure that the proposed change will not compromise the flood safety features of the San Joaquin River and Eastside and Mariposa Bypasses. Within 60 days of the effective date of this Order, Reclamation shall provide the Deputy Director for Water Rights with a report on the status of the required consultation.

16. Reclamation shall 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, Ilr-1144, as amended February 14, 1968, to the extent such releases would be made in the absence of the transfer.

17. This order shall not be construed as modifying or amending (1) the rights and obligations of Reclamation and the Exchange Contractors under the Second Amended Contract for Exchange of Waters, Contract Ilr-1144, dated February 14, 1968, or (2) the requirements of section 10004(g) and 10004(j) of Public Law 111-11.

18. Rediversion and conveyance of water under Permits 11885, 11886 and 11887 by or through Central Valley Project (CVP) and State Water Project (SWP) facilities 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 all contractual obligations to CVP and SWP contractors entitled to water from Delta Facilities and that existed prior to the date of the change order (or were subsequently renewed).

19. Rediversion of water at the Jones Pumping Plant and the Banks Pumping Plant pursuant to this order 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. Rediversion of water at the Jones Pumping Plant and the Banks Pumping Plant pursuant to this order is also subject to compliance by the operators with all applicable biological opinions and any court orders applicable to these operations.

20. By January 15, 2012, Reclamation shall provide to the Deputy Director for Water Rights a compliance report describing compliance with the requirements of this order. This report shall include the following information:

    a. the average daily rates of rediversion of water pursuant to the order at both the Clifton Court Forebay and the Jones Pumping Plant,

    b. the average daily rates of rediversion of water pursuant to the order at both the Clifton Court Forebay and the Jones Pumping Plant,

    c. the daily and monthly volumes of water rediverted at both the Clifton Court Forebay and the Jones Pumping Plant,

    d. daily releases from Friant Dam,

    e. daily rediversions at all authorized points of rediversion, and

    f. compliance with all other conditions of this order.

21. This order does not authorize any act that results in the taking of a threatened or endangered species, or any act that is now prohibited, or becomes prohibited in the future, under the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). If a "take" will result from any act authorized under this Order, Reclamation shall obtain authorization for an incidental take permit prior to construction or operation. Reclamation shall be responsible for meeting all requirements of the Endangered Species Act for the temporary change authorized under this order.

22. The State Water Board reserves jurisdiction to supervise the short-term change under this Order, and to coordinate or modify terms and conditions, for the protection of vested rights, fish, wildlife, instream beneficial uses as future conditions may warrant or as appropriate to respond to information provided by the monitoring programs required under this order.

23. Reclamation shall comply with Schedule 1 regarding maximum quantities of water released from Friant Dam and dedicated to the environment pursuant to the petitions. Schedule 2 identifies the anticipated releases under a wet-year hydrologic condition and documents the quantities of flow expected downstream from Friant Dam to the Merced River confluence with the San Joaquin River. Inasmuch as Schedule 2 is not intended to document maximum or minimum instream flows under all conditions, the schedule is informational.

24. Reclamation and the Department of Water Resources shall monitor red sesbania, salt cedar, giant reed, Chinese tallow, and sponge plant along affected portions of the San Joaquin River and bypass system (before and after WY 2011 interim flows) and control and manage these species as specified in the Invasive Species Monitoring and Management Plan, included in Appendix F of the Environmental Assessment and Finding of No Significant Impact/Initial Study and Mitigated Negative Declaration.

25. Reclamation shall implement the 2009-2013 Interim Flow Release Program Water Quality Monitoring Plan in Appendix E of the Supplemental EA. Requests for modification of the Interim Flow Release Program Water Quality Monitoring Plan shall be submitted in writing to the Deputy Director for Water Rights, and may only be made upon written approval from the Deputy Director for Water Rights.

26. Reclamation shall develop and submit to the Deputy Director for Water Rights by February 1, 2011, a water quality response plan that addresses the following: (a) the contribution of Interim Flows to high salinity conditions in the DMC, Mendota Pool, and Fresno Slough; (b) an identification of the different entities and individuals that may contribute to or play a role in the response to high salinity conditions; (c) the current legal and contractual roles and responsibilities of those entities; and (d) possible response mechanisms, including those that are under the control of Reclamation and those that are the responsibility of other entities and individuals.

27. Reclamation will implement monitoring of temperature changes in Millerton Reservoir and a schedule for ramping of flow releases consistent with the San Joaquin River Restoration Settlement Agreement in coordination with U.S. Fish and Wildlife Service, National Marine Fisheries Service, Department of Fish and Game and Department of Water Resources.

STATE WATER RESOURCES CONTROL BOARD

Victoria A. Whitney

*Victoria A. Whitney*
*Deputy Director for Water Rights*

Dated: SEP 30 2010

Attachment: Flow Schedule

| Schedule 1<br>(Same Requirements as Table 2-3, Supplemental EA)<br><br>Maximum Interim Flow Release from Friant Dam | | |
|---|---|---|
| **Start Date** | **End Date** | **Maximum Interim Flow Release from Friant Dam (cfs)[1]** |
| October 1, 2010 | October 31, 2010 | 575 |
| November 1, 2010 | November 10, 2010 | 575 |
| November 11, 2010 | December 1, 2010 | 575 |
| December 2, 2010 | January 31, 2011 | 0 |
| February 1, 2011 | February 15, 2011 | 375 |
| February 16, 2011 | February 28, 2011 | 1,375 |
| March 1, 2011 | March 15, 2011 | 1,475 |
| March 16, 2011 | March 31, 2011 | 1,475 |
| April 1, 2011 | April 15, 2011 | 1,475 |
| April 16, 2011 | April 30, 2011 | 1,475 |
| May 1, 2011 | May 31, 2011 | 1,475 |
| June 1, 2011 | June 30, 2011 | 1,475 |
| July 1, 2011 | July 31, 2011 | 1,475 |
| August 1, 2011 | August 31, 2011 | 125 |
| September 1, 2011 | September 30, 2011 | 145 |

[1] Includes 5 cfs of riparian releases. Includes both the fall and spring flexible flow periods as described in Exhibit B of the Settlement. Actual releases may be less. Total Interim Flows volume released from Friant Dam shall not exceed 389,355 af in a wet year. Water Year 2011 may include a pulse flow of up to 2,000 cfs release from Friant Dam for a 12-hour period.

**Schedule 2**
**(Same Requirements as Table 2-1, Supplemental EA)**

**Example Estimated Maximum Regulated Nonflood Flows Under the Proposed Action in a Wet Year[1]**

| Begin Date | End Date | Estimated Maximum Flow Consisting of Interim Flows and Water Right Flows at Locations in the Restoration Area (cfs) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Head of Reach 1[3] | Head of Reach 2A[4] | Head of Reach 2B[5] | Head of Reach 3[6] | Head of Reach 4A | In Reach 4B1[7] | In Reach 4B2 | In Bypass System[8] | Head of Reach 5 | Merced River Confluence[9] |
| 10/1/2010 | 10/31/2010 | 350 | 195 | 115 | 715 | 115 | 0 | 115 | 115 | 115 | 415 |
| 11/1/2010 | 11/6/2010 | 700 | 575 | 475 | 1,075 | 475 | 0 | 475 | 475 | 475 | 775 |
| 11/7/2010 | 11/10/2010 | 700 | 575 | 475 | 1,075 | 475 | 0 | 475 | 475 | 475 | 775 |
| 11/11/2010 | 12/1/2010 | 350 | 235 | 155 | 755 | 155 | 0 | 155 | 155 | 155 | 555 |
| 12/2/2010[2] | 1/31/2010[2] | 120 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2/1/2011 | 2/28/2011 | 350 | 255 | 175 | 775 | 175 | 0 | 175 | 175 | 175 | 675 |
| 3/1/2011 | 3/15/2011 | 500 | 375 | 285 | 885 | 285 | 0 | 285 | 285 | 285 | 785 |
| 3/16/2011 | 3/31/2011 | 1,500 | 1,375 | 1,225 | 1,300 | 1,225 | 0 | 1,225 | 1,225 | 1,225 | 1,700 |
| 4/1/2011 | 4/15/2011 | 1,620 | 1,475 | 1,300 | 1,300 | 1,300 | 0 | 1,300 | 1,300 | 1,300 | 1,700 |
| 4/16/2011 | 4/30/2011 | 1,620 | 1,475 | 1,300 | 1,300 | 1,300 | 0 | 1,300 | 1,300 | 1,300 | 1,700 |
| 5/1/2011 | 6/30/2011 | 1,660 | 1,475 | 1,300 | 1,300 | 1,300 | 0 | 1,300 | 1,300 | 1,300 | 1,700 |
| 7/1/2011 | 8/31/2011 | 350 | 125 | 45 | 645 | 45 | 0 | 45 | 45 | 45 | 320 |
| 9/1/2011 | 9/30/2011 | 350 | 145 | 65 | 665 | 65 | 0 | 65 | 65 | 65 | 340 |

Notes
1. Example only. Actual Interim Flows may vary depending on a variety of factors. Flows may be lower under other water year types.
2. No Water Year 2011 Interim Flows during this period.
3. Assumes up to 230 cubic feet per second diverted by instream water right holders (e.g., holding contracts), consistent with Exhibit B of the Settlement.
4. Assumes up to 200 cubic feet per second lost through infiltration, consistent with Exhibit B of the Settlement.
5. Estimated maximum Water Year 2011 Interim Flows at the head of Reach 2B account for seepage losses experienced in Reach 2A, consistent with Exhibit B of the Settlement.
6. Assumes up to 600 cubic feet per second released to Reach 3 from the Mendota Pool for diversions at Sack Dam into the Arroyo Canal.
7. The Proposed Action does not include any activity in Reach 4B1.
8. Includes Eastside and Mariposa bypasses.
9. Assumes accretions from Mud and Salt Sloughs in Reach 5, consistent with Exhibit B of the Settlement.

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

**DIVISION OF WATER RIGHTS**

**ORDER WR 2009-0058-DWR**

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

**TEMPORARY TRANSFER OF WATER AND CHANGE PURSUANT TO WATER CODE SECTIONS 1725 AND 1707**

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SOURCE: San Joaquin River

COUNTIES: Madera and Fresno

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**ORDER APPROVING TEMPORARY TRANSFER AND CHANGE**

BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

## 1.0 SUBSTANCE OF PETITIONS

On June 10, 2009 U.S. Bureau of Reclamation (Reclamation) submitted petitions for transfer and change pursuant to Water Code sections 1725 and 1707 with the State Water Resources Control Board (State Water Board), Division of Water Rights (Division). Upon execution of a contract with Reclamation for payment of filing fees, the State Water Board accepted the petitions for processing on July 15, 2009. The petitions request authorization to change the method of operation of the Friant Division of the Central Valley Project (CVP) in order to implement on an interim basis the provisions of the Stipulation of Settlement (Settlement) in *Natural Resources Defense Council, et al. v. Rodgers, et al.*, and the San Joaquin River Restoration Settlement Act, Public Law No. 111-11, § 10001 et seq., 123 Stat. 991, 1349 (Settlement Act). Reclamation seeks to (1) add points of rediversion, (2) add to the place of use, and (3) add preservation and enhancement of fish and wildlife resources as an authorized purpose of use under Permits 11885, 11886, and 11887.

A maximum of 384,000 acre-feet (af) of water will be transferred. Reclamation plans to transfer up to 29,000 af from October 1, 2009 through November 20, 2009. Depending upon the forecast for the 2010 Water Year type, up to 355,000 af would be transferred from February 1, 2010 through September 30, 2010. Thus, the entire period for the temporary transfer is October 1, 2009 through September 30, 2010.

The petitions propose temporary changes to the points of rediversion and place of use under Reclamation's permits. Under both alternatives, the petitions request the temporary addition of preservation and enhancement of fish and wildlife resources as an authorized purpose of use under the subject permits. Water will be released to the natural watercourse of the San Joaquin River for this instream 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.

Alternative A:

Reclamation proposes to dedicate water released from Millerton Reservoir for instream use from Friant Dam to the confluence of the Merced and San Joaquin Rivers, and use instream conveyance of water in order to meet existing Reclamation obligations in lieu of making such deliveries from the Delta-Mendota Canal. Water will be used by Reclamation concurrently for instream beneficial use and for existing delivery obligations within the existing authorized places of use under Permits 11885, 11886, and 11887.

Water previously stored or that would otherwise be delivered for consumptive use in the Friant service areas would be released from Millerton Reservoir through the downstream San Joaquin River channel. Water would then be rediverted at and near Mendota Dam for delivery through various canals and to flow through Mendota Dam. Water would flow past Sack Dam. Water would thence be conveyed through the Sand Slough Control Structure to and through the East Side Bypass. Water in the East Side Bypass would thence flow through the Mariposa Bypass and thence the San Joaquin River and would also continue to flow through the East Side Bypass to Bear Creek. Water would be diverted along the East Side 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.

Reclamation proposes to temporarily amend the place of use for instream beneficial uses to include the San Joaquin River from Friant Dam (Upper Reach) to the confluence of the Merced River (Lower Reach).

Alternative B:

Under Alternative B, Reclamation would expand the instream flow dedication reach and place of use described in Alternative A. The instream flow dedication reach would not end at the confluence of the San Joaquin River with the Merced River. Instead, the dedication reach would extend to the San Joaquin River near Vernalis, and thence to the Sacramento-San Joaquin Delta (Delta) channels at the Jones and Banks Pumping Plants. Implementing the transfer could increase flows entering the Delta from the San Joaquin River. (Final Environmental Assessment and Finding of No Significant Impact/Initial Study and Mitigated Negative Declaration (FONSI/MND), p. 2-12.) Reclamation seeks to temporarily redivert the transfer water at the Jones and Banks Pumping Plants and at the San Luis Dam for potential 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, Friant Division long-term contractors, and other south-of-Delta CVP/State Water Project (SWP) contractors. (Final FONSI/MND, p. 2-12.)

The instream flow dedication reach for Alternative B is located within Contra Costa, Alameda, San Joaquin and Sacramento Counties.

The petitions included proposed conditions for approval. Certain requested conditions are included in this order.

## 2.0 BACKGROUND

On September 13, 2006, a settlement was reached in *Natural Resources Defense Council, et al. v. Rodgers, et al.*, regarding restoration of fish habitat in the San Joaquin River below Friant Dam and ending 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) was established to implement the Settlement. Congress provided federal authorization for implementing the Settlement in the Settlement Act (Public Law 111-11, § 10001 et seq.).

The Settlement establishes two primary goals: (1) to restore and maintain fish populations, including 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 is to begin no later than October 1, 2009, and will continue until full restoration flows begin.

Reclamation, as the lead agency under the National Environmental Policy Act (NEPA), and the California Department of Water Resources (DWR), as the lead agency under the California Environmental Quality Act (CEQA), prepared a FONSI/MND consistent with their lead roles in preparing the future Program Environmental Impact Statement/Report (PEIS/R) for the SJRRP. The FONSI/MND evaluated potential environmental consequences associated with the estimated change in flow in the San Joaquin River as a result of the Interim Flows Project. On September 25, 2009, Reclamation issued a Finding of No Significant Impact, and DWR issued a Mitigated Negative Declaration for the Water Year 2010 Interim Flows Project. On September 30, 2009, DWR filed a Notice of Determination with the California State Clearing House Office of Planning and Research. Mitigation measures were made a condition of approval of the project. A Mitigation Monitoring Plan was also adopted for this project.

## 3.0 PUBLIC NOTICE OF THE PETITIONS

The State Water Board issued notice of the petitions on July 31, 2009. Any objections were required to be submitted by August 31, 2009. Objections were timely filed by: (1) the San Joaquin River Exchange Contractors Water Authority, the Central California Irrigation District, the San Luis Canal Company, the Firebaugh Canal Water District, and the Columbia Canal Company (herein collectively referred to as the Exchange Contractors), and (2) a group composed of San Luis and Delta-Mendota Water Authority, Westlands Water District and the State Water Contractors (herein collectively referred to as the State and Federal Contractors).

## 4.0 OBJECTIONS TO THE PETITIONS

### 4.1 Exchange Contractors

#### 4.1.1 Injury to prior rights

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 water is delivered via the Delta-Mendota Canal. The Exchange Contractors' objection states that, in the event Reclamation is unable to meet its contractual obligations to the Exchange Contractors, the Exchange Contractors are entitled to resort to their senior water rights and receive a flow of water down the San Joaquin River.

The Exchange Contractors claim that Reclamation has failed to provide sufficient information and explanation to support its claim that the temporary transfer will not injure any legal user of water. The Exchange Contractors do not allege specific injury that will result from the proposed change, nor do they provide specific information about their claim of right to use water beyond general references to their contracts and senior rights. (See Cal. Code Regs., tit. 23, § 745, subd. (b) [establishing requirements for protests based on interference with prior rights].)

Reclamation asserts that the proposed transfer will not result in injury to any legal user of water. Reclamation and the Exchange Contractors have entered into the Second Amended Contract for Exchange of Waters, Contract Ilr-1144, dated February 14, 1968. Under the terms and conditions of that contract, Reclamation is obligated to ensure the availability of required deliveries from the Delta-Mendota Canal or releases from Millerton Reservoir. Furthermore, 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, including the Exchange Contract.

In its petitions, Reclamation states that Millerton Reservoir operations will be conducted so that the availability of deliveries and releases for the Exchange Contractors' water supply will be the same as in the absence of the proposed changes. It contends that necessary deliveries from the Delta-Mendota Canal will be made pursuant to the terms and conditions of its Exchange Contract. In its supplement to its petitions (page 9), Reclamation indicates that the proposed transfer would not expand existing obligations or increase demand for CVP water supplies. Reclamation stated that the FONSI/MND concluded that based upon CalSim modeling results the proposed transfer would not affect water delivery quantities to contractors outside the Friant Division, including the San Joaquin River Exchange Contractors. (Supplement, p. 9, ¶ 3.) Reclamation also indicated that all water that is subject to the transfer petitions 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. Absent the proposed action, the only non-flood flows that Reclamation would release at Friant Dam are flows to maintain 5 cubic feet per second (cfs) at Gravelly Ford and any flows made pursuant to the Exchange Contract. No other non-flood flow releases are made for use by any other entity downstream of Friant. These non-flood flows will remain unchanged under the proposed action. (Supplement, p. 9, ¶ 4)

In order to ensure that the Exchange Contractors will not be affected by the proposed transfer, Reclamation proposes the following permit condition. The State Water Board will condition the transfer accordingly. In addition, the Board shall make it clear that the contractual obligations are not being modified.

> Reclamation shall 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, Ilr-1144, as amended February 14, 1968, to the extent such releases would be made in the absence of the transfer.

The Exchange Contractors requested that Reclamation prepare and publish a water supply operations plan that will ensure it can meet the water rights of the Exchange Contractors through releases from San Luis Reservoir and/or Millerton Reservoir. Approval of the petitions is subject to prior vested water rights and the condition listed above. Additional measures are not needed. Moreover, operation of San Luis Reservoir, except as a point of rediversion for the temporary transfer petition, is outside of the scope of the current proceeding.

In addition to asserting that Reclamation has provided insufficient information to support a finding that the Exchange Contractors' rights will not be injured, the Exchange Contractors assert that Reclamation has generally failed to support its claim that the temporary transfer of water will not injure any legal user of water. The objection states that there are no details as to how Reclamation will be able to deliver water to other water right holders and contracting parties, including the Exchange Contractors. Potential impacts to the Exchange Contractors are addressed above. Reclamation, however, evaluated water supply impacts in a Water Operations Model, which was circulated as an Appendix to the June 3, 2009 Draft EA/IS for this project and referenced in the petitions. Millerton Lake is operated as a single-year reservoir, with no annual carryover, and is fully exercised (i.e., full to minimum storage) in virtually all years. This operational scenario would not change if the transfer is approved. (FONSI/MND, 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. (FONSI/MND, 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. (FONSI/MND, pp. 4-93 to 4-150.)

In the petitions, Reclamation addressed whether there would be any legal injury to San Joaquin River Holding Contractors, San Joaquin River Exchange Contractors, Friant Division CVP Water Service Contractors, other South-of-Delta Water Service Contractors, Eastside Division Water Service Contractors, and water for fish hatchery purposes. Reclamation concluded that there would be no injury. The Exchange Contractors' objection did not identify the legal users of water that may be affected by the proposed transfer. Given that the proposed changes will not result in less natural flow in the source than without the project, the evidence supports the conclusion that the proposed project will not injure the rights of any legal user entitled to the use of that natural flow. Absent specific information identifying particular legal users of water and the potential injury to them, the State Water Board concludes that Reclamation has presented sufficient information to conclude that the proposed temporary transfer will not cause injury to the Exchange Contractors or other legal users of water.

Nonetheless, although the State Water Board concludes that the proposed changes will not injure any legal user of water, the Board will condition its approval subject to prior rights.

The releases from Millerton Reservoir pursuant to the petition would be in addition to the quantity of releases otherwise required under the San Joaquin River Holding Contracts. The Order includes a condition regarding maintenance of the existing 5 cfs requirement at Gravelly Ford in addition to the newly proposed instream flow regime.

#### 4.1.2 Showing of availability of water

The Exchange Contractors' objection states that Reclamation's petitions contain insufficient information about the source of the 384,000 af proposed for transfer, how that water is or will be available for transfer, and whether and how Reclamation will either reduce consumptive use of water in that amount, or alternatively how they will make up or replace the transferred water.

Water Code section 1725 requires the State Water Board to find that the transfer would involve the amount of water that would have been consumptively used or stored by the permittee in the absence of the proposed temporary change. Diversion and use of water is limited to the water that is available under the terms and conditions of Reclamation's permits, and all water that is subject to the transfer petitions 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 in the absence of the transfer. Reclamation evaluated Millerton Lake daily operations and monthly operations downstream of Friant Dam in the FONSI/MND and identified the impacts of modifying its operations in a manner that is consistent with the water right permits. The Exchange Contractors do not explain why they believe these analyses are deficient, and there is no evidence to indicate that water will not be available to meet the requirements of downstream water users and other water right holders to the extent Reclamation is required to provide such water. Moreover, as explained above, this approval is subject to prior rights.

#### 4.1.3 Groundwater impacts

The objection states that the transfer appears to violate Water Code sections 1707 and 1725 because water users other than Reclamation will have to increase groundwater pumping to replace the water subject to the proposed transfer. The Exchange Contractors' objection does not claim that there will be any legal injury to its water users in connection with the increased groundwater pumping, but instead the contractors seek additional information regarding the effect of the proposed transfer on groundwater, wells, and pumping in the area.

Citing to Water Code section 1732, the Exchange Contractors assert that Reclamation must submit contracts by the Friant contractors agreeing not to increase the amount of pumped groundwater and measures to control groundwater pumping. Water Code section 1732 states that a petitioner shall not initiate or increase the use of groundwater to replace surface water transferred pursuant to the article

governing temporary changes (Wat. Code, § 1725 et seq.), except in compliance with sections 1745.10 and 1745.11. Section 1732 is directed to groundwater substitution transfers, where the transferor either pumps groundwater as a substitute supply for surface water deliveries that would occur in the absence of the transfer, thereby freeing up surface water for transfer, or relies on water freed up for transfer when a user agrees to reduced deliveries because the user is substituting groundwater for surface water deliveries. That is not the case here, where Reclamation is neither pumping groundwater nor relying on arrangements by which users will substitute groundwater for surface diversions. Instead, Reclamation is making a transfer for purposes of providing instream flows to beneficial uses in the San Joaquin River and seeking to recapture further downstream the water it releases down the San Joaquin River. Section 1732 cannot reasonably be interpreted to prohibit Reclamation from making a transfer that does not rely on groundwater substitution, simply because of the potential that if flow dedicated for instream beneficial uses cannot be recaptured, some users will increase groundwater pumping to make up for lost deliveries.[1]

In its petitions, Reclamation asserts that Appendix G (Modeling) to the FONSI/MND, which addesses Groundwater Modeling Output in Attachment 4, shows that any resulting drawdown in groundwater levels is expected to be within the range of groundwater level fluctuations historically exhibited. The Exchange Contractors' objection included comment letters on the FONSI/MND written by San Joaquin River Resource Management Coalition, the Exchange Contractors, Friant Water Users Authority and the Division. The comment letters request additional information regarding the groundwater modeling, or indicate that the groundwater impacts are analyzed based on historical versus current groundwater conditions, but do not challenge the substantive findings regarding groundwater levels in the FONSI/MND. Consequently, there is no evidence that approval of the petitions will result in groundwater diversion beyond the historical levels of diversions.

Moreover, it is anticipated that groundwater recharge in the vicinity of the San Joaquin River will increase downstream of Gravelly Ford because the previously dry streambed will be wetted. Therefore, some persons may receive a net groundwater benefit due to percolation.

In these circumstances, the State Water Board is not required to condition or disapprove the transfer, simply because some users in the Friant service area may increase groundwater pumping.

#### 4.1.4 Seepage monitoring and mitigation plan

The Exchange Contractors assert that no water should be authorized for release pursuant to the petitions below the Mendota Pool until such time as a comprehensive seepage monitoring and mitigation plan has been implemented.

Reclamation conducted an analysis of non-damaging flow capacities in the San Joaquin River from Friant Dam to the Merced River confluence. This assessment considered direct inundation from Interim Flows, rise of the shallow groundwater table and associated water logging of crops and salt mobilization in the crop root zone, and levee instability resulting from through-levee and under-levee seepage. Sources of information included the Flood Control Manual (Reclamation Board, 1967), reports funded by local landowners (RMC, 2003, 2005, and 2007), landowner coordination meetings (Mooney, 2009), hydraulic

[1] Functionally, Reclamation has made the determination necessary for compliance with section 1745.10, but section 1745.10 does not apply under the circumstances presented here. Water Code section 1745.10 states that a water user that transfers surface water pursuant to the article governing water supplier contracts (Wat. Code, § 1745 et seq.) may not replace that surface water with groundwater unless certain conditions are met. If no groundwater management plan has been adopted, this requires that the transfer be approved by the water supplier from whose service area the water is to be transferred and that the water supplier determines that the transfer will not create, or contribute to, conditions of long-term overdraft in the affected groundwater basin. (Wat. Code, § 1745.10, subd. (b).) Reclamation has in fact made a determination that would satisfy this requirement, but a "water supplier" is defined in the article as a local public agency, private company, or mutual water company. (*Id.*, § 1745, subd. (b).) Reclamation does not meet the definition of water supplier as defined in that article. The linkage between Section 1745.10 and arrangements between a local water supplier that transfers water made available through a user's voluntary reductions in deliveries reinforces the interpretation that section 1732 is directed to groundwater substitution transfers, and is not intended to prohibit transfers simply because there might be some incidental effect on groundwater use. Otherwise, section 1732 would effectively prohibit major water transfers by Reclamation or the Department of Water Resources, a result the Legislature could not have intended. (See Wat. Code, § 109 [expressing legislative policy favoring voluntary water transfers].)

modeling for Interim Flows (MEI, 2008), other studies of the flood control system (ACOE, 2002; Hedger, 1960; McBain and Trush, 2002; MEI, 2002; and Moss, 2002), and historical measured data (USGS, DWR, and Reclamation Gage Records). The non-damaging capacity is the minimum of the hydraulic capacity or stage where seepage impacts occur. Based on the analysis, Reclamation determined non-damaging channel capacity as follows:

- Reach 1 and Reach 2A: 8,000 cfs based on hydraulic capacity
- Reach 2B: 1,300 cfs based on landowner communication
- Reach 3: 1,300 cfs based on landowner communication
- Reach 4A: 3,300 cfs based on hydraulic capacity
- Reach 4B: unknown and assumed zero in reach 4B1
- Reach 5: greater than 8,000 cfs based on hydraulic capacity

Reclamation has proposed to limit incremental increases in Interim Flow releases from Friant Dam to provide the ability to observe system response.

Moreover, under the Settlement Act, Reclamation is prohibited from exceeding existing downstream channel capacities. Section 10004(h)(2)(B) of the Settlement Act provides authorization for the Secretary of the Interior (Secretary) to release flows to the extent that such flows would not exceed existing downstream channel capacities. Section 10004(h)(3) directs the Secretary to reduce interim flows to the extent necessary to address any material adverse impacts to third parties from groundwater seepage caused by such flows that the Secretary identifies based on the monitoring program of the Secretary.

A condition has been included in the order to prohibit Reclamation from exceeding the channel capacities.

#### 4.1.5 Fish facilities and operations

The objection states that prior to release of flows that will reach the confluence of the San Joaquin River with the Merced River, Reclamation should complete an analysis of the likely Federal costs of any fish screens, fish bypass facilities, fish salvage facilities and related operations on the San Joaquin River at (1) a location at the upstream end of the Mendota Pool and (2) upstream of the Merced River confluence (in the area generally where the Hills Ferry barrier is currently operated), which pursuant to section 10004(h) of the Settlement Act must be completed prior to the initiation of any flows. The objection asserts that Reclamation should construct a new inlet facility to deliver San Joaquin River flood flows into the Pool in excess of the restoration hydrographs and the Exchange Contractors' water rights water. Also, Reclamation must agree to install a fish screen or similarly effective facility or device at the proposed new inlet to the Mendota Pool unless scientific data establishes that no such facility or device is necessary.

To the extent that the Exchange Contractors suggest that the Settlement Act requires implementation of measures sought by the contractors in their objection, they mischaracterize the requirements of the Settlement Act. Section 10004(h)(1)(E) of the Settlement Act requires an analysis of the likely Federal costs of any fish screens, fish bypass facilities, fish salvage facilities and related operations on the San Joaquin River south of the confluence of the Merced River required under the federal Endangered Species Act as a result of the interim flows. The Settlement identifies certain channel and structural improvements that must be developed and implemented in accordance with certain deadlines. The creation of a bypass around Mendota Pool to ensure conveyance of at least 4,500 cfs from Reach 2B to Reach 3 is a Phase 1 improvement that is not scheduled until December 2012. This milestone is outside the timeframe of the temporary transfer, and the issue of Reclamation's development and implementation of these improvements need not be addressed in this proceeding.

Additionally, section 10004(h)(1)(4) of the Settlement Act requires the Secretary, in consultation with the California Department of Fish and Game (CDFG), to evaluate the effectiveness of the Hills Ferry barrier in preventing the unintended upstream migration of anadromous fish in San Joaquin River during interim flows. If that evaluation determines that any such migration past the barrier is caused by the interim flows and that the presence of such fish will result in the imposition of additional regulatory actions against third parties, the Secretary is authorized to assist CDFG in making improvements to the Hills Ferry Barrier. Section 10004(h)(1)(4) further states that if third parties are required to install fish screens or fish bypass facilities due to the release of interim flows in order to comply with the federal Endangered Species Act of 1973, the Secretary shall bear the costs of the installation of such facilities if such costs would be not be already or otherwise willingly borne by others.

In Chapter 2 of the WY 2010 Interim Flows FONSI/MND, Reclamation proposed to work with CDFG to have CDFG install the Hills Ferry Barrier at the confluence of the San Joaquin River upstream of the Merced River confluence during the October 1, 2009 to November 20, 2009 interim flows. (FONSI/MND section 2.2.7 p 2-32 ¶ 2.) For the February 1, 2010 to September 30, 2010 interim flows period, Reclamation proposes to complete a monitoring plan for Central Valley steelhead upstream of the Merced River confluence prior to beginning the spring flow releases on February 1, 2009. If a steelhead is found, Reclamation proposes to notify the National Marine Fisheries Service (NMFS), and recover and return stranded steelhead to an appropriate location as designated by CDFG and/or NMFS (Reclamation and DWR, 2009). These fish barrier and recovery activities were also included in Reclamation's Biological Assessment (Reclamation, 2009). These activities will prevent the straying of listed species into the San Joaquin River above the Merced River confluence and will recover and return any individuals that do stray into the San Joaquin River.

The objection indicates that Reclamation has not shown that the transfer will not unreasonably affect fish, wildlife, or other instream beneficial uses. The petition refers to sections 2.6 and 4.5 of the FONSI/MND for discussion and analysis of fisheries, including the presence of fish species in Millerton Reservoir and downstream reaches. The objection does not identify the fisheries issues that the Exchange Contractors believe are unresolved, and accordingly, the State Water Board will not address the issues raised by the contractors further.

#### 4.1.6 Physical harm

The objection states that the release or transfer of up to 384,000 acre-feet of water into the San Joaquin River will likely cause actual physical injury and harm to other right holders, including the Exchange Contractors. The addition of such flows could cause flooding, seepage, erosion, loss of farmland, loss of access to properties, and related physical damage to land along the river. Reclamation evaluated the channel capacity and concluded that existing channel capacities in the Restoration Area exceed potential flows included in the petitions. (Final FONSI/MND, p. 4-92.) Maximum WY 2010 interim flows in Reach 2B would be constrained by the existing channel capacity and operational experience which impose a further restriction on flows in Reach 2B to 1,300 cfs to prevent seepage problems.

In addition, the objection states that Mendota Dam may be stressed due to the proposed streamflows. Mendota Dam has been noted by the California Division of Safety of Dams to have substantial stability and underflow concerns. Should Mendota Dam fail or water levels required to be lowered to reduce pressure upon the dam, a substantial area of irrigated acreage could be denied water service and substantial areas of crops could be damaged or lost. Further seepage below or around the foundations of Mendota Dam and Sack Dam is increased in probability by instances in which the facilities are surcharged by additional water flows from interim flows. The order shall be conditioned to address this issue.

#### 4.1.7 Operations and use agreements

The Exchange Contractors request that Reclamation be required to enter into coordinated operations and use agreements with the Central California Irrigation District, San Luis Canal Company, San Joaquin River Exchange Contractors Water Authority, San Luis & Delta-Mendota Water Authority and the Lower

San Joaquin Levee District regarding operations of the Mendota Dam, Sack Dam and the existing levees in and around the Mendota Pool.

Although the Exchange Contractors have not provided specific information demonstrating that operation and use agreements are necessary to prevent injury to its member agencies, information about operations will help to ensure that the interim flows program subject to this order is operated in a manner to avoid injury. Accordingly, this order requires Reclamation to provide daily operations information to the public to advise them of the daily flow regime by maintaining a public website to provide operations data.

#### 4.1.8 Private property and facility access

The Exchange Contractors state that Reclamation will require Temporary Entry Permits to implement the seepage monitoring and mitigation plan and that without access and use agreements, its member entities will be harmed because their water operations are likely to be substantially impacted. Similarly, the objection states that Reclamation does not have legal access to the points of re-diversion at Mendota Dam or other locations under the jurisdiction of member agencies of the Exchange Contractors. The Exchange Contractors also assert that Reclamation does not have the necessary powers of eminent domain to use the Mendota Dam. It is unnecessary, however, for the State Water Board to resolve issues related to Reclamation's powers of eminent domain or to speculate whether the any agencies will grant access to Reclamation. Reclamation is solely responsible for obtaining permission for any access needed to implement the required monitoring and mitigation plan and use certain facilities, as noted in the order.

#### 4.1.9 General objections and concerns

The Exchange Contractors' objection states that it is inappropriate for Reclamation to seek a one-year temporary transfer for a project that, after commencement of interim flows, will be continuously operated. The contractors also allege that the quantity of water involved is large and accordingly should not be the subject of a short-term transfer petition.

As discussed herein, the interim flows project covered by the Reclamation's petitions meets the criteria for a temporary transfer. Reclamation has requested temporary authorization for the first year of a program to restore streamflow in the San Joaquin River. It is in the public interest to allow Reclamation an opportunity to implement the program, obtain operations data, and refine its flow release program for purposes of long-term restoration flows operations. The Water Code does not limit the amount of water that may be transferred under section 1725 or 1707 to a particular numeric quantity. Instead, the amount of water is relevant only to determine if Reclamation has an entitlement to the use of the water pursuant to water right permits 11885, 11886, and 11887 and in making the necessary findings required by statute.

#### 4.1.10 1707 Concerns

The objection states that the petitions do not provide information to show that the proposed change in use (1) will not increase the amount of water the transferor is entitled to use, (2) will not unreasonably affect any legal user of water, and (3) otherwise meets the applicable requirements of the Water Code regarding water transfers.

The permits involved in the transfer collectively authorize direct diversion of 6,500 cfs and storage of 2,210,000 af by storage. The proposed transfer of 384,000 af will not increase the amount of water the transferor is entitled to use. The issue of impacts to any legal user of water is addressed above in Section 4.1.a. The findings necessary for approval of a transfer and 1707 petition are addressed in Section 6.0. This objection has no merit.

#### 4.1.11 Water quality issues

The Exchange Contractors raise water quality considerations regarding ongoing operations and the salt loading associated with such operations. The State Water Board's review in this matter, however, is

limited to impacts associated with the proposed changes, and it will not address ongoing operations to the extent they are unrelated to those changes. To avoid potential harm to legal users of water resulting from adverse water quality impacts, this order will require Reclamation to conduct water quality monitoring to determine whether there are adverse impacts associated with the Interim Flows Program. Reclamation will be required to evaluate whether additional measures are needed to address water quality issues based on the sampling data.

#### 4.1.12 Miscellaneous concerns

The objection states that the petitions contain insufficient information about the nature, source and extent of the water rights involved in the temporary transfer and therefore are so vague and uncertain as to not provide adequate notice of the proposal. The Exchange Contractors assert that it is not clear from the petitions who holds permits or pre-1914 rights related to the transferred water, how and where the water transferred has been used, and the overall quantity of water associated with such rights. Reclamation has petitioned to change Permits 11885, 11886 and 11887 and has thus specifically identified which appropriative water rights it holds that it proposes to temporarily change for the purposes described in the petitions. The Exchange Contractors have not identified any specific injury to their claimed prior rights. In fact, Reclamation's permits are held subject to prior rights. The State Water Board need not address this issue further absent a particular claim of injury.

#### 4.1.13 Central Valley Project Improvement Act (CVPIA) restrictions

The Exchange Contractors maintain that the proposed transfer must comply with the provisions of the CVPIA, Public Law 102-575, section 3405(a). The CVPIA mandates changes in management of the CVP, particularly for the protection, restoration, and enhancement of fish and wildlife and also authorizes water transfers under section 3405(a) to assist water users in meeting their water needs. Approval of the petitions would facilitate restoration of anadromous fish populations, which is a primary goal of the CVPIA. This approval does not authorize any act that does not comply with applicable state or federal law.

### 4.2 State and Federal Contractors

The State and Federal Contractors object to the changes on the basis of potential adverse impacts to the quantity, timing, or quality of water conveyed at the Jones or Tracy Pumping Plants or stored in the San Luis Reservoir. Further, the State and Federal Contractors note that the CVP and the State Water Project (SWP) are significantly regulated pursuant to the federal Endangered Species Act. Thus, additional diversion at the Jones and/or Banks pumping plants may cause the incidental take of listed species. The take could contribute to the CVP and/or SWP reaching or exceeding the take limits imposed by a biological opinion. As a result, the State and Federal Contractors allege that approval of the petitions may limit the quantity or timing of water that would otherwise be available to the State and Federal Contractors.

The State and Federal Contractors stated that their objection would be resolved if a condition is included in any order to limit rediversion of water under Permits 11885, 11886 and 11887 if it would adversely affect the quantity, timing, or quality of water that would be available and delivered to them. They propose a condition limiting the rediversion of water to the available capacity of the SWP and CVP, as defined by the contractors, after satisfying any statutory or contractual obligations to CVP and SWP contractors. To ensure compliance with the condition, the State and Federal Contractors suggest that Reclamation be required to prepare reports every month during the temporary transfer demonstrating that its actions undertaken pursuant to the change order have not and will not injure the State and Federal Contractors. A condition has been included in the order to address this issue.

## 5.0 COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Reclamation filed its petitions for a temporary transfer of water pursuant to Water Code sections 1707 and 1725,et seq.. Water Code section 1729 exempts temporary changes from the requirements of CEQA. (Pub. Resources Code, § 21000, et seq.) The State Water Board will issue a Notice of Exemption. The State Water Board, however, may approve a temporary change due to a transfer of water only if it determines that the proposed temporary change would not unreasonably affect fish, wildlife, or other instream beneficial uses. (Wat. Code, § 1727, subd. (b)(2).) In addition to any obligation the State Water Board may have under CEQA, the Board has an independent obligation to consider the effect of the proposed project on public trust resources and to protect those resources where feasible. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419.)

As the lead agency under CEQA, the Department of Water Resources (DWR) prepared an Initial Study and Mitigated Negative Declaration (MND) for the Water Year 2010 Interim Flows Project in conjunction with the Environmental Assessment and Finding of No Significant Impact prepared by Reclamation (SCH#2009061019). On September 30, 2009, DWR filed a Notice of Determination for the MND with the Office of Planning and Research.

Although approval of temporary transfers is exempt from CEQA, in this case, a completed environmental document is available for the State Water Board's review. The State Water Board's purview as a responsible agency under CEQA involves impacts to water resources, and by mitigating and requiring monitoring to the same extent as would be required if the approval were subject to CEQA, the State Water Board helps assure that the requirements of the Water Code to avoid unreasonable impacts on fish and wildlife and to avoid injury to legal users of water are satisfied. There is no evidence that approval of the petitions will unreasonably affect fish, wildlife, or other instream uses or have any adverse impacts on public trust resources beyond those identified in the MND. Accordingly, the State Water Board will require implementation of the mitigation measures identified in the MND.

## 6.0 CRITERIA FOR APPROVING THE PROPOSED TEMPORARY CHANGE

Water Code section 1707 authorizes the use of the temporary transfer provisions of Water Code section 1725, 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. Pursuant to Water Code sections 1707 and 1725, Reclamation has applied for a temporary change for the purpose of preserving and enhancing fish and wildlife resources. Before approving Reclamation's petitions, the State Water Board must make the following required findings under Water Code sections 1707 and 1725 et seq.:

1. The proposed transfer involves only an amount of water that would have been consumptively used or stored in the absence of the temporary change.

2. The proposed change would not injure any legal user of water, during any potential hydrologic condition that the Board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of water or return flows.

3. The proposed change would not unreasonably affect fish, wildlife, or other instream beneficial uses.

4. The proposed change will not increase the amount of water Reclamation is entitled to use.

5. The proposed change will not unreasonably affect any legal user of water.

### 6.1 Availability of Water for Transfer and No Increase in the Amount Reclamation is Entitled to Use.

Before approving a temporary change due to a transfer or exchange of water, the State Water Board must find that the transfer would only involve the amount of water that would have been consumptively used or stored by the permittee or licensee in the absence of the proposed temporary change. (Wat. Code, §§ 1725 - 1726. See also State Water Board Order WR 99-12 at p. 14 [for purposes of section 1725, water that would have been consumptively used but for water conservation efforts pursuant to section 1011 is deemed to be the equivalent of water that would have been consumptively used in the absence of the transfer].) In addition, before approving a change under section 1707, the State Water Board must find that the proposed change will not increase the amount of water the person is entitled to use. (Wat. Code, § 1707, subd. (b)(1).)

Absent the proposed transfer, the water that is the subject of the transfer 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 Division service area. In light of the above, I find in accordance with Water Code section 1726, subdivision (e) that the water proposed for transfer pursuant to this order would be consumptively used or stored in the absence of the proposed temporary change. Moreover, the proposed change will not increase the amount of water that Reclamation is entitled to use.

### 6.2 No Injury to Other Legal Users of Water:

Before approving a temporary change due to a transfer or exchange of water, the State Water Board must find that the transfer would not injure any legal user of the water during any potential hydrologic condition that the Board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of the water, or reduction in return flows. (Wat. Code, § 1727, subd. (b)(1).) Before approving a change under Water Code section 1707, the State Water Board must find that the change will not unreasonably affect any legal user of water. (*Id.*, § 1707, subd. (b)(2).) A discussion of potential harm to other legal users of water is found in the responses to the objections, Section 4.0 above. The proposed temporary change would not injure any legal user of the water during any potential hydrologic condition that the State Water Board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of the water, or reduction in return flows or otherwise unreasonably affect a legal user of water.

### 6.3 No Unreasonable Effect Upon Fish, Wildlife, or Other Instream Beneficial Uses

Before approving a temporary change due to a transfer of water, the State Water Board must find that the proposed change would not unreasonably affect fish, wildlife, or other instream beneficial uses. (Wat. Code, § 1727, subd. (b)(2).) The temporary changes and 1707 dedication have been requested for the purpose of re-establishing flows below Friant Dam and re-watering the stream system for the purpose of protecting and maintaining salmonids. The FONSI/MND also considered possible effects upon wildlife and other instream beneficial uses and determined that the instream flows to be dedicated will not have a significant effect upon wildlife resources, or other instream beneficial uses. Accordingly, the State Water Board finds that the proposed change will not unreasonably affect fish, wildlife, or other instream beneficial uses.

## 7.0 STATE WATER RESOURCES CONTROL BOARD'S DELEGATION OF AUTHORITY

On September 18, 2007, the State Water Board adopted Resolution 2007-0057, delegating to the Deputy Director for Water Rights the authority to act on petitions for temporary change if the State Water Board does not hold a hearing. This order is adopted pursuant to the delegation of authority in section 4.4.2 of Resolution 2007-0057.

## 8.0 CONCLUSIONS

The State Water Board has adequate information in its files to make the evaluation required by Water Code sections 1707 and 1725.

The State Water Board concludes that, based on the available evidence:

1. The proposed change would not injure any legal user of water, during any potential hydrologic condition that the board determines is likely to occur during the proposed change, through significant changes in water quantity, water quality, timing of diversion or use, consumptive use of water or return flows.

2. The proposed change may be made without unreasonable effect upon fish, wildlife, or other instream beneficial uses.

3. The proposed change will not increase the amount of water Reclamation is entitled to use.

4. The proposed change will not unreasonably affect any legal user of water.

5. The proposed transfer involves only an amount of water that would have been consumptively used or stored in the absence of the temporary change.

## ORDER

**NOW, THEREFORE, IT IS ORDERED THAT** Reclamation's petition for temporary transfer and dedication of water for instream purposes pursuant to Water Code sections 1707 and 1725 is approved for a transfer of up to a maximum of 29,000 af from October 1, 2009 through November 20, 2009. Depending upon the forecast 2010 Water Year type, up to a maximum of 355,000 af is approved for transfer from February 1, 2010 through September 30, 2010. Thus, the entire period for the temporary transfer is October 1, 2009 through September 30, 2010 for a total maximum transfer of up to 384,000 af subject to prior vested water rights.

All existing terms and conditions of Permits 11885, 11886 and 11887 remain in effect, except as temporarily amended by the following provisions:

1. The following points of rediversion are temporarily added to the permits. All coordinates in this Order are in California Coordinate System of 1983, Zone 3:

   A. Mendota Dam – North 1,745,350 feet and East 6,598,943 feet, being within the SE ¼ of NE ¼ of Section 19, T13S, R15E, MDB&M, including intakes to the following canals:

      i. Main Canal – North 1,744,396 feet and East 6,598,937 feet, being within the SE ¼ of Section 19, T13S, R15E, MDB&M.
      ii. Outside Canal – North 1,741,896 feet and East 6,599,689 feet, being within SE ¼ of Section 19, T13S, R15E, MDB&M.
      iii. Columbia Canal – North 1,746,420 feet and East 6,605,595 feet, being within NE ¼ of Section 20, T13S, R15E, MDB&M.
      iv. Helm Ditch - North 1,745,022 feet and East 6,598,787 feet, being within NE ¼ of Section 19, T13S, R15E, MDB&M.
      v. Firebaugh Water District Canal – North 1,741,821 feet and East 6,599,844 feet, being within SE ¼ of Section 19, T13S, R15E, MDB&M.

B. Intake to the Arroyo Canal – North 1,816,307 feet and East 6,561,446 feet, being within SW ¼ of Section 12, T11S, R13E, MDB&M.

C. Intake to the Sand Slough Control Structure – North 1,862,535 feet and East 6,535,468 feet, being within NE ¼ of Section 31, T9S, R13E, MDB&M, for conveyance through the East Side Bypass.

D. Along the East Side Bypass – North 1,883,703 feet and East 6,523,784 feet, being within NW ¼ of Section 11, T9S, R12E, MDB&M (at Lone Tree Unit, Merced National Wildlife Refuge).

E. Intake to the Mariposa Bypass Control Structure, on the East Side Bypass – North 1,895,936 feet and East 6,505,198 feet, being within SE ¼ of Section 30, T8S, R12E, MDB&M.

F. Along the East Side Bypass – North 1,914,452 feet and East 6,480,299 feet, being within NE ¼ of Section 8, T8S, R11E, MDB&M.

G. Jones Pumping Plant – North 2,114,400 feet and East 6,248,083 feet, being within SW ¼ of SW ¼ of Section 31, T1S, R4E, MDB&M.

H. Banks Pumping Plant – North 2,115,990 feet and Eat 6,237,838 feet, being within SW ¼ of Section 35, T1S, R3E, MDB&M.

I. San Luis Dam – North 1,844,598 feet and East 6,394,093 feet, being within SW ¼ of SE ¼ of Section 15, T10S, R8E, MDB&M.

2. Any San Joaquin River water temporarily stored or routed through San Luis Reservoir shall not be delivered to south-of-Delta contractors other than Friant Division Contractors.

3. The following additional place of use is temporarily added to the permits:

   San Joaquin River from Friant Dam to the Sacramento-San Joaquin Delta at the Jones and Banks Pumping Plants. This place of use is added for the dedication of instream flows for the purpose of preservation and enhancement of fish and wildlife resources pursuant to Water Code section 1707. The specific locations of these facilities are identified in item (1).

   Pursuant to this transfer, water may be temporarily used in Fresno, Madera, Merced, Stanislaus, Contra Costa, Alameda, San Joaquin and Sacramento Counties.

4. The following purpose of use is temporarily added to the permits: preservation and enhancement of fish and wildlife.

5. The quantities of water released from Friant Dam for this transfer shall be in addition to that quantity of releases otherwise required to maintain the 5 cubic feet per second requirement at Gravelly Ford and that would be sufficient to provide necessary flow in the river reach below Gravelly Ford pursuant to the obligations of the holding contracts executed by Reclamation.

6. Addition of Sand Slough Control Structure as a point of rediversion for conveyance through the East Side Bypass and the introduction of flow into the East Side Bypass and Mariposa Bypass, as well as the addition of points of rediversion further downstream, are conditioned upon the following: (a) execution of any necessary agreement with the Central Valley Flood Protection Board to release transferred water into the East Side Canal, and (b) execution of any necessary agreement with the Lower San Joaquin Levee District for the operation, inspection, and maintenance of flood control facilities.

7. Reclamation shall monitor river stage and flow conditions at the following locations during all periods when water released under this order is 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);
   - above the Merced River confluence (river mile 118); and
   - at the head of the Sand Slough Bypass (river mile 182).

   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. Flows shall also be monitored at the Vernalis gaging station, which is operated by the U.S. Geological Survey and Department of Water Resources (DWR), with provisional monitoring data reported on the California Data Exchange Center website at cdec.water.ca.gov on a daily basis. Flows shall also 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.

   In the event that flows have the potential to or will exceed channel capacities, Reclamation shall reduce flows to the last known flows that did not result in exceeding such capacities until such time that Reclamation determines that increasing flows would not exceed channel capacities.

8. Reclamation shall implement a Seepage Monitoring and Management Plan (Plan) consistent with the Plan outlined in the Water Year 2010 Interim Flows Draft Environmental Assessment/Initial Study (WY 2010 Interim Flows Draft FONSI/MND; Reclamation and DWR 2009) and with Public Law 111-11, Section 10004(h)(3). The Plan, with timelines for installation of monitoring equipment, shall include the installation of groundwater monitoring wells on public right of entry at the following river miles: 255.7, 234.2, 223.8, 222.0, 219.8, 218.2, 217.2, 211.8, 173.9, 125.1. The groundwater monitoring network shall account for subsidence in the area when determining differences in groundwater elevations. Groundwater elevation thresholds shall be established to determine when impacts to agricultural lands or levee stability are imminent. Interim flows shall only be released in a manner consistent with the Plan, including the timeline for installation of monitoring equipment.

9. When interim flows are greater than 475 cfs in Reaches 2A and 3 of the San Joaquin River, Reclamation shall conduct on a daily basis an evaluation of recent groundwater levels and flow and stage levels in the river channel and post the information on a publicly available website. In the event that groundwater elevations create seepage conditions, Reclamation shall reduce or redirect flows to the last known flow volume that did not result in seepage conditions until such time that Reclamation determines that increasing flows would not create seepage conditions (i.e., seepage is caused by an activity not related to the interim flows).

10. Reclamation shall coordinate its operations with the Central California Irrigation District (CCID) and the San Luis Canal Company (SLCC). When interim 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 interim 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 interim 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 interim 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 interim 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 interim flows. Reclamation shall also notify facility owners that flows authorized under this order are protected under the California Water Code and shall not be diverted or stored unless otherwise authorized by Reclamation consistent with this order.

11. Nothing in this order authorizes the use of, or access to, private property. In carrying out the activities authorized under this order, Reclamation is responsible for obtaining any approvals that may be necessary to access private property.

12. This order does not authorize any act that results in damage that could result in imminent failure to: (a) private levees located along the San Joaquin River, (b) to facilities, including levees and related structures, which are part of the San Joaquin River Flood Control Project, or (c) to Mendota Dam. Reclamation shall be responsible for operating under this Order in a way that does not result in such damage.

13. Reclamation shall 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, Ilr-1144, as amended February 14, 1968, to the extent such releases would be made in the absence of the transfer.

14. This order shall not be construed as modifying or amending (1) the rights and obligations of Reclamation and the Exchange Contractors under the Second Amended Contract for Exchange of Waters, Contract Ilr-1144, dated February 14, 1968, or (2) the requirements of section 10004(g) and 10004(j) of Public Law 111-11.

15. Rediversion and conveyance of water under Permits 11885, 11886 and 11887 by or through Central Valley Project (CVP) or State Water Project (SWP) facilities 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 all statutory and contractual obligations to CVP contractors entitled to SWP water from Delta Facilities[2] and that existed prior to the date of the change order, including but not limited to: (1) obligations related to Level 2 and Level 4 refuge water supplies; (2) obligations under existing or future water service, exchange, or other settlement contracts; (3) all obligations involving or intended to benefit CVP and/or SWP contractors served water through Delta Division facilities, including the Environmental Water Account, Yuba Accord, or similar programs; (4) obligations under existing or future long-term water supply contracts involving SWP contractors served SWP water through Delta Division facilities; and (5) all water delivery obligations established by the SWP Water Supply Contracts, including, but not limited to, the categories of deliveries set forth in Article 12(f) of such contracts.

16. Rediversion of water at the Jones Pumping Plant and the Banks Pumping Plant pursuant to this order 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

[2] For purposes of this definition, "Delta facilities" should mean those existing and future Central Valley Project and State Water Project facilties in and south of the Sacramento-San Joaquin Delta, including but not limited to the C.W. Jones Pumping Plant, Delta Mendota Canal, O'Neill Forebay, O'Neill Pumping/Generating Plant, San Luis Reservoir, Clifton Court Forebay, Harvey O. Banks Pumping Plant and the California Aqueduct.

as prerequisites for the use of the Joint Points of Diversion by Reclamation and DWR. Rediversion of water at the Jones Pumping Plant and the Banks Pumping Plant pursuant to this order is also subject to compliance by the operators with all applicable biological opinions and any court orders applicable to these operations.

17. By January 15, 2011, Reclamation shall provide to the Deputy Director for Water Rights a compliance report describing compliance with the requirements of this order. This report shall include the following information:

    a. the average daily rates of rediversion of water pursuant to the order at both the Clifton Court Forebay and the Jones Pumping Plant,

    b. the daily and monthly volumes of water rediverted at both the Clifton Court Forebay and the Jones Pumping Plant,

    c. daily releases from Friant Dam,

    d. daily rediversions at all authorized points of rediversion, and

    e. compliance with all other conditions of this order.

18. This order does not authorize any act that results in the taking of a threatened or endangered species, or any act that is now prohibited, or becomes prohibited in the future, under the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). If a "take" will result from any act authorized under this Order, Reclamation shall obtain authorization for an incidental take permit prior to construction or operation. Reclamation shall be responsible for meeting all requirements of the Endangered Species Act for the temporary change authorized under this order.

19. The State Water Board reserves jurisdiction to supervise the temporary urgency change under this Order, and to coordinate or modify terms and conditions, for the protection of vested rights, fish, wildlife, instream beneficial uses as future conditions may warrant or as appropriate to respond to information provided by the monitoring programs required under this order.

20. Reclamation shall comply with the attached flow schedule.

21. Reclamation and the Department of Water Resources shall monitor red sesbania, salt cedar, giant reed, Chinese tallow, and sponge plant along affected portions of the San Joaquin River and bypass system (before and after WY 2010 interim flows) and control and manage these species as specified in the Invasive Species Monitoring and Management Plan, included in Appendix F of the Environmental Assessment and Finding of No Significant Impact/Initial Study and Mitigated Negative Declaration.

22. Reclamation shall collect baseline information to evaluate potential impacts to Mendota National Wildlife Refuge and other resources associated with the temporary transfer. For this effort, Reclamation shall collect sediment and water quality information at the locations and for the parameters specified in Table 1. Samples shall be collected at least one week before interim flows reach the respective monitoring station to capture baseline data. If sediment sample concentrations are below criteria identified by the Deputy Director for Water Rights, then no additional sediment, organo-chlorine or pyrethroid sampling shall be required during the fall 2009 interim flow. If samples exceed the proposed criteria, Reclamation shall continue all sampling specified in Table 2 developed by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) and Reclamation. Approximately one week after interim flows reach the respective monitoring station, water samples shall be collected at each location and analyzed for organic and inorganic water quality parameters as specified in Table 2. Reclamation shall compile real-time data from sites listed in Table 3 to monitor flow and physical parameters during the study period.

By January 1, 2010, Reclamation shall develop a monitoring plan, acceptable to the Deputy Director for Water Rights, for the releases beginning after February 1, 2010. Prior to submitting the plan to the Division of Water Rights, Reclamation shall obtain the written comments of the Central Valley Water Board, U.S. Fish and Wildlife Service, and California Department of Fish and Game. The plan is subject to review, modification and approval by the Deputy Director for Water Rights.

Until approval of a final monitoring plan, samples collected as part of this project must include field duplicates at a rate of 5% of the total project sample count at sites that includes all parameters to be analyzed. Additional quality assurance samples may be required by specific analytical methods.

Results from all water quality monitoring must be submitted to the Central Valley Water Board and Division of Water Rights within two months of data collection. Results shall include: laboratory name where results were analyzed, analytical result, analytical method, field duplicate results, and laboratory quality control, including laboratory blanks, reference material, matrix spikes, and laboratory duplicates.

At a minimum, analyses for each parameter group will include the following:

- TSS =Total suspended solids
- Nutrients: TN, NH4, NO2, NO3, TKN, TP, PO4, chlorophyll
- TOC/DOC: total and dissolved organic carbon
- Bacteria: Fecal coliform and E. coli
- Trace Elements/minerals: cations (Ca, Mg, K, Na); anions (Cl, CO4, HCO3); total TE (copper, chromium, lead, nickel, zinc, arsenic, mercury)
- Pesticides: water column pre-release scans (carbamates and organophosphates); post-release scans (carbamates, organophosphates, and dependent on sediment results addition of organochlorines and pyrethroids)
- Bed Sediment: TOC, Trace elements (copper, chromium, lead, nickel, zinc, arsenic, mercury), organochlorine scan, pyrethroid scan, toxicity

STATE WATER RESOURCES CONTROL BOARD

Victoria A. Whitney

Victoria A. Whitney
Deputy Director for Water Rights

Dated: OCT - 1 2009

Attachments: Table 1: Baseline Analyses Required 1-week prior to Fall 2009 Interim Releases
Table 2: Analyses Required as Released Water Moves Progressively Downstream
Table 3: Real-time data to support Fall 2009 Interim Releases
Table 4: Flow Schedule: Estimated Maximum Regulated Nonflood Flows under the Proposed Action in a Wet Year

**Table 1**

**Baseline Analyses Required 1-week prior to Fall 2009 Interim Releases**

| Monitoring Site | Reach | TSS | Nutrients | TOC/DOC | Bacteria | Trace Elements | Pesticides | Bed Sediment |
|---|---|---|---|---|---|---|---|---|
| Millerton Lake | 1A | 1 | 1 | 1 | 1 | 1 | 1 | |
| SJR just below Friant Dam | 1A | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SJR near HWY 99 | 1A | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SJR at Gravelly Ford | 2A | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SJR below Bifurcation | 2B | 1 | 1 | 1 | 1 | 1 | 1 | |
| SJR near Mendota | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SJR below Sack Dam | 4A | 1 | 1 | 1 | 1 | 1 | 1 | |
| SJR at Hills Ferry | 5 | 1 | 1 | 1 | 1 | 1 | 1 | |

**Table 2**

**Analyses Required as Released Water Moves Progressively Downstream (Note variable sampling frequency).**

| Monitoring Site | Reach | TSS | Nutrients | TOC/DOC | Bacteria | Major Trace Elements | Pesticides | Bed Sediment |
|---|---|---|---|---|---|---|---|---|
| Millerton Lake | 1A | W | | | | | | |
| SJR just below Friant Dam | 1A | W | W | W | W | W | W | 1P |
| SJR near HWY 99 | 1A | W | W | W | W | W | W | 1P |
| SJR at Gravelly Ford | 2A | W | W | W | W | W | W | 1P |
| SJR below Bifurcation | 2B | W | | | | | | |
| SJR near Mendota | 3 | W | W | W | W | W | W | 1P |
| SJR below Sack Dam | 4A | W | | | | | | |
| SJR at Fremont Ford | 5 | W | | | | | | |
| SJR at Crows Landing | 5 | W | | | | | | |

Sampling frequency:
Water: Twice weekly, October 1 – 14, 2009; weekly, October 15 – November 20, 2009
Sediment: Once following interim flows (December 2009)

**Table 3. Real-time data to support Fall 2009 Interim Releases**

| Monitoring Site | Reach | CDEC | Flow | Temperature | pH | Dissolved Oxygen | Chlorophyll | Turbidity | EC |
|---|---|---|---|---|---|---|---|---|---|
| Millerton Lake | 1A | MIL | C | | | | | | |
| SJR just below Friant Dam | 1A | P | C | C | C | C | P | C | C |
| SJR at HWY 41 | 1A | H41 | C | | | | | | |
| SJR near HWY 99 | 1A | DNB | C | P | P | P | P | P | P |
| SJR at Gravelly Ford | 2A | GRF | C | C | C | C | P | C | C |
| SJR below Bifurcation | 2B | SJB | C | C | C | C | P | C | C |
| SJR near Mendota | 3 | MEN | C | | | | | | |
| SJR below Sack Dam | 4A | P | P | P | P | P | P | P | P |
| SJR at Fremont Ford | 5 | FFB | C | C | | | | | C |
| SJR at Hills Ferry | 5 | P | C | C | P | P | P | P | C |
| SJR at Crows Landing | 5 | SCL | C | C | | | | | C |

C=continuous monitoring using YSI 6600 multiparameter sondes
P=pending installation of sondes
Blank cells: Equipment will not be available for Fall 2009 Interim Flows

## Table 4

### Estimated Maximum Regulated Nonflood Flows Under the Proposed Action in a Wet Year[1]

| Begin Date | End Date | Estimated Maximum Flows Consisting of Interim Flows and Water Right Flows at Locations in the Restoration Area (cubic feet per second) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Head of Reach 1[3] | Head of Reach 2A[4] | Head of Reach 2B[5] | Head of Reach 3[6] | Head of Reach 4A[7] | In Reach 4B1[8] | In Reach 4B2 | In Bypass System[7,9] | Head of Reach 5 | Merced River Confluence[10] |
| 10/1/2009 | 10/31/2009 | 350 | 195 | 115 | 715 | 115 | 0 | 115 | 115 | 115 | 415 |
| 11/1/2009 | 11/6/2009 | 700 | 575 | 475 | 1,075 | 475 | 0 | 475 | 475 | 475 | 775 |
| 11/7/2009 | 11/10/2009 | 700 | 575 | 475 | 1,075 | 475 | 0 | 475 | 475 | 475 | 775 |
| 11/11/2009 | 11/20/2009 | 350 | 235 | 155 | 755 | 155 | 0 | 155 | 155 | 155 | 555 |
| 11/21/2009[2] | 1/31/2010[2] | 120 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2/1/2010 | 2/28/2010 | 350 | 255 | 175 | 775 | 175 | 0 | 175 | 175 | 175 | 675 |
| 3/1/2010 | 3/15/2010 | 500 | 375 | 285 | 885 | 285 | 0 | 285 | 285 | 285 | 785 |
| 3/16/2010 | 3/31/2010 | 1,500 | 1,375 | 1,225 | 1,300 | 1,225 | 0 | 1,225 | 1,225 | 1,225 | 1,700 |
| 4/1/2010 | 4/15/2010 | 1,620 | 1,475 | 1,300 | 1,300 | 1,300 | 0 | 1,300 | 1,300 | 1,300 | 1,700 |
| 4/16/2010 | 4/30/2010 | 1,620 | 1,475 | 1,300 | 1,300 | 1,300 | 0 | 1,300 | 1,300 | 1,300 | 1,700 |
| 5/1/2010 | 6/30/2010 | 1,660 | 1,475 | 1,300 | 1,300 | 1,300 | 0 | 1,300 | 1,300 | 1,300 | 1,700 |
| 7/1/2010 | 8/31/2010 | 350 | 125 | 45 | 645 | 45 | 0 | 45 | 45 | 45 | 320 |
| 9/1/2010 | 9/30/2010 | 350 | 145 | 65 | 665 | 65 | 0 | 65 | 65 | 65 | 340 |
| Estimated Maximum Total Volume (thousand acre-feet) | | 485 | 387 | 321 | 544 | 321 | 0 | 321 | 321 | 321 | 533 |

Notes:

[1] Flows may be lower under other water year types.

[2] No Water Year 2010 Interim Flows during this period.

[3] Assumes up to 230 cubic feet per second diverted by instream water right holders (e.g., holding contracts), consistent with Exhibit B of the Settlement.

[4] Assumes up to 200 cubic feet per second lost through infiltration, consistent with Exhibit B of the Settlement.

[5] Assumes up to approximately 2,600 cubic feet per second maximum diversion capacity to water right holders in the Mendota Pool. Estimated maximum Water Year 2010 Interim Flows at the head of Reach 2B account for seepage losses experienced in Reach 2A, consistent with Exhibit B of the Settlement.

[6] Assumes up to 600 cubic feet per second released to Reach 3 from the Mendota Pool for diversions at Sack Dam into the Arroyo Canal.

[7] Assumes up to 25 percent of flow lost through infiltration downstream from Sack Dam, and up to 80 cubic feet per second diverted at wildlife refuges.

[8] The Proposed Action does not include any activity in Reach 4B1.

[9] Includes Eastside and Mariposa bypasses.

[10] Assumes accretions from Mud and Salt sloughs in Reach 5, consistent with Exhibit B of the Settlement.

P 11885

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

# DIVISION OF WATER RIGHTS

## ORDER

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

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

**WHEREAS:**

1. The U. S. Bureau of Reclamation holds License 1986 and Permits 11885, 11886, and 11887 for a combined direct diversion of 6,500 cubic feet per second and combined storage of 2,210,000 acre-feet per annum of water in Lake Millerton (Friant Dam).

2. Permittee petitioned the State Water Resources Control Board, (SWRCB) Division of Water Rights for a temporary urgency change pursuant to Water Code Section 1435 to add a point of rediversion at the Mendota Pool on the San Joaquin River. The petition was filed to facilitate a short-term exchange of CVP water between the Friant Division contractors and other CVP contractors south of the Sacramento-San Joaquin Delta in support of a proposed water management demonstration program (program) for the San Joaquin River. The program was developed by the Friant Water Users Authority and a coalition of environmental and fishing organizations to evaluate benefits to riparian habitat along the San Joaquin River above Mendota Pool and to gather information about the operational impacts of such a program. The program is intended to be completed by November 1, 1999.

3. The program involves a one-time series of releases from Friant Dam (estimated total of 40,000 acre-feet) which will be delivered down the San Joaquin River to the Mendota Pool to meet Reclamation's water service obligation. This water will be in exchange of an equivalent amount of CVP water that would otherwise have been delivered to the Mendota Pool from the Delta. The releases will occur from mid-June through October 1999 and will consist of CVP water that is above the minimum releases ordinarily necessary to meet the requirements of water right settlement contracts between Friant Dam and Gravelly Ford.

4. In order to implement the program, the Friant Contractors have agreed to allow a portion of the Friant Division Water supplies that they would normally receive during water year March 1, 1999 through February 29, 2000 to be released from Friant Dam into the San Joaquin River, provided they receive an equivalent amount of water from other sources during that time period. An equivalent amount of water that would normally be delivered to the Mendota Pool from the Delta will be wheeled via the Federal CVP/State Water Project facilities to the Cross Valley Canal and subsequently returned to the Friant service area. Use of the State Water Project Facilities will be under an agreement with the Department of Water Resources.

5. No new or increased Sacramento/San Joaquin Delta exports will occur under the proposed exchange.

6. The Permittee has an urgent need to make the proposed change.

7. The petitioned change will not operate to the injury of any other lawful user of water, will not have an unreasonable effect upon fish, wildlife, or other instream beneficial uses, and is in the public interest.

8. This action is exempt from the California Environmental Quality Act under Class 6 pursuant to Title 14, California Code of Regulations Section 15306.

9. Water Code Section 1438 allows the SWRCB to issue a temporary urgency change in advance of notice.

**NOW, THEREFORE, IT IS ORDERED THAT:**

1. The Mendota Pool, located in the SE ¼ of the SE ¼ of Section 19, T13S, R15E, MDB&M, is added as a temporary point of rediversion to License 1986 and Permits 11885, 11886, and 11887.

2. The place of use in Permits 12721, 12722, 12723, 12860, 11315, 11316, and 11318 is temporarily expanded to include the Friant service area to the extent necessary to accomplish the program referenced in this order. The increase in place of use is allowed provided the delivery of water to the Friant service area does not result in an increase in Delta exports above that which would have occurred absent the program.

3. This order shall take effect immediately and be in force until January 8, 2000.

Dated: JUL 0 8 1999

Harry M. Schueller, Chief
Division of Water Rights

STATE OF CALIFORNIA—STATE WATER RIGHTS BOARD

# ORDER

APPLICATION 234 PERMIT 11885 LICENSE

## ORDER ALLOWING CHANGE IN PLACE OF USE

WHEREAS permittee has established to the satisfaction of the State Water Rights Board that the change in place of use under Application 234, Permit 11885, for which petition was submitted on December 23, 1959, will not operate to the injury of any other legal user of water and the Board so finds;

NOW THEREFORE IT IS ORDERED that permission be and the same is hereby granted to change the place of use under said Application 234, Permit 11885, to a place of use described as follows, to wit:

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

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

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



FORM 100

25308 8-60 5M SPO

[For full information concerning the filling out of this form refer to Article 4 of Rules and Regulations Pertaining to Appropriation of Water]

STATE OF CALIFORNIA—STATE WATER RIGHTS BOARD

Application No. 234 Filed January 19, 1916 at M.
(Applicant must not fill in the above blanks)

# APPLICATION TO APPROPRIATE UNAPPROPRIATED WATER

I, U.S. Bureau of Reclamation
Name of applicant

of Sacramento, County of Sacramento
Address

State of California, ~~do~~ does hereby make application for a permit to appropriate the following described unappropriated waters of the State of California, *SUBJECT TO VESTED RIGHTS:*

## Source, Amount, Use and Location of Diversion Works

1. The source of the proposed appropriation is San Joaquin River
Give name of stream, lake, etc., if named; if unnamed state nature of source and that it is unnamed

located in Madera & Fresno Counties, tributary to Suisun Bay

2. The amount of water which applicant desires to appropriate under this application is as follows: (See Supplement)

(a) For diversion to be directly applied to beneficial use 3,000 cubic feet per second, to be diverted from February 1 to October 31 of each year.
1 cubic foot per second equals 40 statute miner's inches or 646,317 gallons per day
Beginning date — Closing date

(b) For diversion to be stored and later applied to beneficial use 500,000 acre-feet per annum, to be collected between November 1 and August 1 of each season.
1 acre-foot equals 325,851 gallons
Beginning date — Closing date

NOTE.—Answer (a) or (b) or both (a) and (b) as may be necessary. If amount under (a) is less than .025 cubic foot per second, state in gallons per day. Neither the amount nor the season may be increased after application is filed. If underground storage is proposed a special supplemental form will be supplied by the State Water Rights Board upon request.

3. The use to which the water is to be applied is irrigation and incidental domestic
Domestic, irrigation, power, municipal, mining, industrial, recreational
purposes.

4. The point of diversion is to be located at Friant Dam, N. 39° 30' W.
State bearing and distance or coordinate distances from section or quarter section corner
and 2200 feet from S¼ Cor. Sec. 5, T11S., R21E, MDB&M
being within the NW¼ of SW¼
State 40-acre subdivision of public land survey or projection thereof
of Section 5, T. 11S, R. 21E. MDB&M B. & M., in the Counties of Madera and Fresno

5. The main conduit terminates in (See supplement) of Sec. ____, T. ____, R. ____, ____ B. & M.
State 40-acre subdivision of U. S. Government survey or projection thereof

## Description of Diversion Works

NOTE.—An application cannot be approved for an amount grossly in excess of the estimated capacity of the diversion works.

6. Intake or Headworks (fill only those blanks which apply)

(a) Diversion will be made by pumping from ____
Sump, offset well, unobstructed channel, etc.

(b) Diversion will be by gravity, the diverting dam being Friant Dam 270 feet in height (stream bed to level of overflow); 3,488 feet long on top; and constructed of concrete
Concrete, earth, brush, etc.

(c) The storage dam will be 270 feet in height (stream bed to overflow level); 3,488 feet long on top; have a freeboard of 7.0 feet, and be constructed of concrete
Concrete, earth, etc.

7. Storage Reservoir Millerton Lake
Name

The storage reservoir will flood lands in (see supplement)
Indicate section or sections, also 40-acre subdivisions unless shown upon map

8 It will have a surface area of 4,900 acres, and a capacity of 520,600 acre-feet.

☞ In case of insufficient space for answers in form, attach extra sheets at top of page 3 and cross reference.

8. **Conduit System** (describe main conduits only) (see supplement)

(a) Canal, ditch, flume: Width on top (at water line) _____ feet; width at bottom _____
Cross out two not used

feet; depth of water _____ feet; length _____ feet; grade _____ feet per 1,000 feet; materials

of construction _____
Earth, rock, timber, etc.

(b) Pipe line: Diameter _____ inches; length _____ feet; grade _____ feet per

1,000 feet; total fall/lift from intake to outlet _____ feet; kind _____
Riveted steel, concrete, wood-stave, etc.

NOTE.—If a combination of different sizes or kinds of conduit is to be used, attach extra sheets with complete description, also show location of each clearly on map.

9. **The estimated capacity** of the diversion conduit or pumping plant proposed is (See supplement) Friant-Kern Canal 5,000 cfs ~~Madera Canal 1,500 cfs~~
State cubic feet per second or gallons per minute

**The estimated cost** of the diversion works proposed is (see supplement)
Give only cost of intake, or headworks, pumps, storage reservoirs and main conduits described herein

## Completion Schedule

10. **Construction work** will begin on or before Already begun

Construction work will be completed on or before December 31, 1951 for initial stage and 1961 for enlargement of canals.

The water will be completely applied to the proposed use on or before December 31, 1965

## Description of Proposed Use

11. **Place of Use.** An estimated gross area of 4,986,000 acres as shown on USBR Map No.
State 40-acre subdivisions of the public land survey. If area is unsurveyed indicate the location as if lines of the public land

214-212-37, "Potential Service Area, San Joaquin River Applications".
survey were projected. In the case of irrigation use state the number of acres to be irrigated in each 40-acre tract, if space permits. If space does not permit listing of all

(see supplement)
40-acre tracts, describe area in a general way and show detail upon map.

Do(es) applicant(s) own the land whereon use of water will be made? No Jointly? _____
Yes or No Yes or No

(see supplement)
If applicant does not own land whereon use of water will be made, give name and address of owner and state what arrangements have been made with him.

12. **Other Rights.** Describe all rights except those on file with the State Water Rights Board under which water is served to the above named lands. incidental to irrigation /

| Nature of Right (riparian, appropriative, purchased water, etc.) | Year of First Use | Use made in recent years including amount if known | Season of Use | Source of Other Supply |
|---|---|---|---|---|
| 1. | (estimate of seasonal water requirements and | | | |
| 2. | utilizable yields) | | | |
| 3. | | | | |
| 4. | | | | |
| | | | | |

Attach supplement at top of page 3 if necessary. (See supplement)

13. **Irrigation Use.** The area to be irrigated is any 353,000 acres within the gross service area acres.
State net acreage to be irrigated

The segregation of acreage as to crops is as follows: Rice (see supplement) acres; alfalfa _____ acres;

orchard _____ acres; general crops _____ acres; pasture _____ acres.

NOTE.—Care should be taken that the various statements as to acreage are consistent with each other, with the statement in Paragraph 11, and with the map.

The irrigation season will begin about February 1 and end about October 31
Beginning date Closing date

14. **Power Use.** The total fall to be utilized is _____ feet.
Difference between nozzle or draft tube water level and first free water surface above

The maximum amount of water to be used through the penstock is _____ cubic feet per second.

The maximum theoretical horsepower capable of being generated by the works is _____ horsepower.
Second feet × fall ÷ 8.8

The use to which the power is to be applied is _____
For distribution and sale or private use, etc.

The nature of the works by means of which power is to be developed is _____
Turbine, Pelton wheel, etc.

The size of the nozzle to be used is _____ inches.

The water will / will not be returned to _____ in _____ of
Name stream State 40-acre subdivision

Sec. _____, T. _____, R. _____, _____ B. & M.

15. **Municipal Use.** This application is made for the purpose of serving _____
Name city or cities, town or towns. Urban areas only

_____ having a present population of _____

The estimated average daily consumption during the month of maximum use at the end of each five-year period until the full amount applied for is put to beneficial use is as follows:

_____

_____

_____

16. **Mining Use.** The name of the mining property to be served is _____
Name of claim

_____ and the nature of the mines is _____
Gold placer, quartz, etc.

The method of utilizing the water is _____

It is estimated that the ultimate water requirement for this project will be _____
Cubic feet per second, gallons per minute. State basis of estimate

The water will / will not be polluted by chemicals or otherwise _____
Explain nature of pollution, if any

and it will / will not be returned to _____ in _____ of
Name stream — State 40-acre subdivision

Sec. _____, T. _____, R. _____, _____ B. & M.

17. **Other Uses.** The nature of the use proposed is Incidental domestic
Industrial, recreational, domestic, stockwatering, fish culture, etc.

_____

State basis of determination of amount needed. _____
Number of persons, residences, area of domestic lawns and gardens, number and kind of stock, type

_____
industrial use, and unit requirements.

_____

_____

_____

_____

_____

_____

## General

18. Are the maps as required by the Rules and Regulations filed with Application? Yes (Yes or No). If not, state specifically the time required for filing same _____

19. Does the applicant own the land at the proposed point of diversion? Yes (Yes or No). If not, give name and address of owner and state what steps have been taken to secure right of access thereto _____

_____

20. What is the name of the post office most used by those living near the proposed point of diversion?

Friant, California

21. What are the names and addresses of claimants of water from the source of supply below the proposed point of diversion? Diverters between Friant Dam and Mendota Pool as listed in Sacramento-San Joaquin Water Supervision Report.

United States of America
Department of the Interior
Bureau of Reclamation

73

[Signature of Applicant] /s/ Richard L. Boke
Regional Director, Region 2

SUPPLEMENT TO APPLICATION 234

Supplement to Paragraph 2: AMOUNT OF WATER

It is intended to pool the waters under license 1986, Application No. 23, with those applied for in Applications 234, 1465, 5638, 5817 to 5822, inclusive, and 9369 so that the combined direct diversion from Friant Reservoir will be sufficient to divert 6,500 c.f.s. into the Madera and Friant-Kern Canals and upwards to 5,000 c.f.s. along the San Joaquin River, including Contra Costa and Delta-Mendota Canals.

Water will be stored and diverted from storage through the Madera and Friant-Kern Canals under Applications 234, 1465, and 5638 as needed for irrigation and for the replenishment of the natural underground reservoirs under Application 9369. The total water stored in Millerton Lake for both uses will be upwards to 1,200,000 acre-feet annually not including quantities of water stored for these uses but later released into the San Joaquin River in order to provide empty reservoir space for control of floods. Including releases for flood control the quantity of water stored would exceed 2,800,000 acre-feet in some years.

Supplement to Paragraph 5: MAIN CONDUIT

Madera Canal terminates at its junction with Ash Slough, located within the NE¼SW¼ Sec. 9, T. 9 S., R. 17 E., M.D.B. & M. Friant-Kern Canal terminates at its junction with Kern River located within the SW¼NW¼ Sec. 33, T. 29 S., R. 27 E., MD.B. & M.

Supplement to Paragraph 7: STORAGE RESERVOIR

The lands to be flooded by Millerton Lake are those lying below elevation 578 as shown on "Madera Reservoir Topography" Maps Nos. E-4-0 to E-4-25, inclusive, prepared by the Madera Irrigation District from plane table surveys made in 1921 under the supervision of F. M. Carter, Chief Engineer and filed with Application 234.

Millerton Lake will flood lands in Secs. 7, 8, 9, 10, 15, 16, 17, 18, 19, and 30 in T. 10 S., R. 22 E.; Secs. 14, 22, 23, 24, 25, 26, 27, 32, 33, 34, 35, and 36 in T. 10 S., R. 21 E.; and Secs. 2, 3, 4, 5, 8, and 9 in T. 11 S., R. 21 E., M.D.B. & M., as indicated on U.S.B.R. Map No. 214-212-46.

Supplement to Paragraph 8: CONDUIT SYSTEM

Madera Canal: The dimensions of the canal as initially constructed are: width at top of water line, 32.45 feet; width at bottom, 10.0 feet; depth of water, 8.98 feet; length, 35.98 miles; grade, 0.3 feet per 1,000 feet; materials of construction, concrete and earth. In the design for

ultimate construction of the canal, provisions have been made to raise the capacity to 1,500 c.f.s. by increasing the depth of canal by a few feet.

Friant-Kern Canal: The dimensions of the canal as initially constructed are: width at top of water line, 81.66 feet; width at bottom, 36.0 feet; depth of water, 15.22 feet; length, 153 miles; grade, 0.1 feet per 1,000 feet; materials of construction, concrete. In the design for ultimate construction of the canal, provisions have been made to raise the capacity to 5,000 c.f.s. by increasing the depth of canal by 1 to 3 feet.

The San Joaquin River and Delta Channels will also be used as conduits.

Supplement to Paragraph 9: CANAL CAPACITY

The Madera Canal has been constructed to an initial capacity of 1,000 c.f.s. for main canal sections and 1,500 c.f.s. for structures with the ultimate capacity of 1,500 c.f.s. to be obtained by raising sides of canal. Similarly the Friant-Kern Canal has been constructed to an initial capacity of 4,000 c.f.s. with provision to increase it to 5,000 c.f.s. ultimately by raising sides of canal.

Supplement to Paragraph 9: ESTIMATED COST

Madera Canal, $3,000,000
Friant-Kern Canal, $60,000,000
Friant Dam, $22,000,000

Supplement to Paragraph 11: PLACE OF USE

The uses to be served will be within the area as indicated upon Map No. 214-212-37, entitled "Potential Service Area, San Joaquin River Applications," which accompanies this application. Water will be used within said place of use by the United States of America, or by persons, the State, State or United States agencies, authorities, associations, public or private corporations, political subdivisions, and other agencies, either as a primary or supplemental supply when water and physical means for delivery thereof are or become available therefor, and under contracts with or other authorization by the United States of America which may be made by authority of and pursuant to law.

Supplement to Paragraph 13: IRRIGATION USE

There is an estimated gross area of 4,986,000 acres within the described place of use, parts of which are now being served with water under lawful rights acquired independently of the United States. Other parts will be partially so served and will require a supplemental supply which will be provided under water contract or other authorization by the United States of America. The water supply for other parts will be entirely provided by the United States.



11 234 1-B

The general crop segregation of the irrigable acreage will be cotton, orchards, vineyards, cereals, alfalfa, hay, and other crops adaptable to the areas involved.

It is intended that the water applied for in this application will be used to irrigate upwards to 353,000 acres in a single year of the total of up to 1,489,609.26 acres that will be irrigated in a single year under applications 23,234, 1465, 5638, 5817 to 5822 inclusive and 9369.



234

17

1-C

# PERMIT No. 11885

This is to certify that the application of which the foregoing is a true and correct copy has been considered and approved by the State Water Rights Board SUBJECT TO VESTED RIGHTS and the following limitations and conditions:

1. The amount of water to be appropriated shall be limited to the amount which can be beneficially used and shall not exceed 3,000 cubic feet per second by direct diversion to be diverted from about February 1 to about October 31 of each year; and 500,000 acre-feet per annum by storage to be collected between about November 1 of each year and about August 1 of the succeeding year.

2. The total amount of water to be appropriated by direct diversion under permits issued pursuant to Applications 234, 1465 and 5638 shall not exceed 6,500 cubic feet per second.

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

4. The maximum amount herein stated may in license be reduced if investigation so warrants.

5. Construction work shall be completed on or before December 1, 1985.

6. Complete application of the water to the proposed use shall be made on or before December 1, 1990.

7. Progress reports shall be filed promptly by permittee on forms to be provided annually by the State Water Rights Board until license is issued.

8. From the quantities set forth in permit conditions 1 and 2 of the permits issued pursuant to Applications 234, 1465 and 5638 there shall be reserved for a period of three years from the date of this order, or for such additional time as may be allowed by the State Water Rights Board, 50,000 acre-feet per annum of municipal water for City of Fresno or such additional quantity as may be mutually agreed by permittee and the City;

3,500 acre-feet per annum of Class 1* water for Garfield Water District or such additional quantity as may be mutually agreed by permittee and the District; and such quantities of Class 2* water for Fresno Irrigation District as may be required to provide an average annual supply of 86,000 acre-feet, or such additional quantity as may be mutually agreed by permittee and the District.

(a) Permittee shall provide water to City of Fresno, Garfield Water District and Fresno Irrigation District only after execution of water service contracts with the United States all in conformity with Federal Reclamation Laws, and subject to such provisions as may be imposed by final judgment in Rank v. Krug, No. 685-ND, United States District Court, Southern District of California, Northern Division; and the right to receive water by City of Fresno, Garfield Water District and Fresno Irrigation District shall be co-equal with all entities which heretofore have executed long-term service contracts with the United States for delivery of water.

(b) Permittee and City of Fresno, Garfield Water District and Fresno Irrigation District shall each within six months from June 2, 1959 and each six months thereafter submit to the Board a written report as to the progress of negotiations for water service contract (or contracts). If, at the end of ~~three years~~ or such additional time
~~Extended to 12-02-62 per Ext. Order 120~~
as may be allowed by the State Water Rights Board, said contract(s)
Extended to 6-2-63 Per Ext. Order 125
has (have) not been executed, said Board

---

* Class 1 and Class 2 water referred to in this permit are defined in "Contract between the United States and the Delano-Earlimart Irrigation District Providing for Water Service and for the Construction of a Distribution System", dated August 11, 1951 (USBR 5 in the matter of Applications 234, etc.).

shall call for further hearing to show cause why said contract(s) has (have) not been executed.

(c) If, after further hearing, the Board concludes that permittee has unreasonably refused to execute such water service contract(s) with the City of Fresno, Garfield Water District or Fresno Irrigation District in the amounts and under the terms set forth in this paragraph, this permit shall be subject to revocation by the Board.

(d) If, after further hearing, the Board concludes that the City of Fresno, Garfield Water District or Fresno Irrigation District has unreasonably refused to execute such water service contract(s) with permittee in accordance with the provisions of this paragraph, the reservation of water provided for in this paragraph shall be subject to termination by the Board insofar as the refusing entity is concerned.

9. All rights and privileges including method of diversion, method of use and quantity of water diverted under this permit is subject to the continuing authority of the State Water Rights Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.

10. Permittee shall maintain daily records of inflow into and outflow from and releases from Millerton Lake, volumes in storage and water surface elevations and shall provide and maintain such measuring facilities as may be necessary for the formulation of said records. Permittee shall make said records of inflow, outflow, releases, volumes in storage and water



A234-P1 ABST .6

16

2-1-80 Name chgd to U.S. Water + Power Res. Service

# IMPORTANT

## [Please Read Carefully]

1. *Note the terms and conditions of this permit.* Construction work must be prosecuted, and the water applied to the beneficial uses intended with due diligence. Annual reports of progress will be expected from you upon forms which will be furnished for the purpose. When the water has been fully applied to the beneficial uses intended the Water Code requires that you notify the State Water Rights Board thereof.
2. Neither this application nor the permit is a water right, but *if the terms and conditions of the permit are observed a water right can be obtained through beneficial use of the water*—the extent of the right to be determined by a field inspection which will be made by a representative of the State Water Rights Board.
3. *No change in point of diversion, or place of use or character of use, can be made under this application and permit* without the approval of the State Water Rights Board.
4. *If the rights under this permit are assigned* immediate notice to that effect with the name and address of the new owner should be forwarded to the State Water Rights Board, Sacramento, California.
5. *Please advise immediately of any change of address.* Until otherwise advised communications will be sent to the address used in the letter transmitting this permit.

74032 4-57 2M SPO

surface elevations available to the State Water Rights Board and shall allow authorized representatives of said Board access to its project works and properties for the purpose of securing supplemental information.

11. Subject to the existence of long-term water delivery contracts between the United States and public agencies and subject to the compliance with the provisions of said contracts by said public agencies, this permit is further conditioned as follows:

(a) The right to the beneficial use of water for irrigation purposes, except where water is distributed to the general public by a private agency in charge of a public use, shall be appurtenant to the land on which said water shall be applied, subject to continued beneficial use and 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 and further subject to the right to dispose of a temporary surplus.

(b) The right to the beneficial use of water for irrigation purposes shall, consistent with other terms of this permit, continue in perpetuity. 43 800

12. The Board retains continuing jurisdiction for such period as may be necessary for the purpose of conforming this permit with the provisions of the final judgment in Rank v. Krug, No. 685-ND, United States District Court, Southern District of California, Northern Division. 023

13. Direct diversion at points downstream from Friant Dam is not authorized by this permit. 000300

*This permit is issued and permittee takes it* subject to the following provisions of the Water Code:

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

Section 1391. Every permit shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article and the statement that any appropriator of water to whom a permit is issued takes it subject to the conditions therein expressed.

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

*Dated:* JUN 2 9 '59

STATE WATER RIGHTS BOARD

L. K. Hill

L. K. Hill
Executive Officer