

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 divert 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 redirection 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.<sup>1</sup>

In its petitions, Reclamation asserts that Appendix G (Modeling) to the FONSI/MND, which addresses 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

<sup>1</sup> 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 East 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 redirection 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 redirection 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](http://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<sup>2</sup> 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

<sup>2</sup> For purposes of this definition, "Delta facilities" should mean those existing and future Central Valley Project and State Water Project facilities 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.

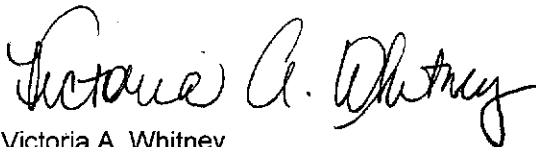
Until approval of a final monitoring plan, samples collected as part of this project must include field duplicates at a rate of 5% of the total project sample count at sites that includes all parameters to be analyzed. Additional quality assurance samples may be required by specific analytical methods.

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, NH<sub>4</sub>, NO<sub>2</sub>, NO<sub>3</sub>, TKN, TP, PO<sub>4</sub>, chlorophyll
- TOC/DOC: total and dissolved organic carbon
- Bacteria: Fecal coliform and E. coli
- Trace Elements/minerals: cations (Ca, Mg, K, Na); anions (Cl, CO<sub>4</sub>, HCO<sub>3</sub>); 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  
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<sup>1</sup>**

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 <sup>3</sup>	Head of Reach 2A <sup>4</sup>	Head of Reach 2B <sup>5</sup>	Head of Reach 3 <sup>6</sup>	Head of Reach 4A <sup>7</sup>	In Reach 4B1 <sup>8</sup>	In Reach 4B2	In Bypass System <sup>7,9</sup>	Head of Reach 5	Merced River Confluence <sup>10</sup>
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 <sup>2</sup>	1/31/2010 <sup>2</sup>	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:

- <sup>1</sup> Flows may be lower under other water year types.
- <sup>2</sup> No Water Year 2010 Interim Flows during this period.
- <sup>3</sup> 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.
- <sup>4</sup> Assumes up to 200 cubic feet per second lost through infiltration, consistent with Exhibit B of the Settlement.
- <sup>5</sup> 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.
- <sup>6</sup> 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.
- <sup>7</sup> 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.
- <sup>8</sup> The Proposed Action does not include any activity in Reach 4B1.
- <sup>9</sup> Includes Eastside and Mariposa bypasses.
- <sup>10</sup> Assumes accretions from Mud and Salt sloughs in Reach 5, consistent with Exhibit B of the Settlement.