State of California
State Water Resources Control Board
DIVISION OF WATER RIGHTS
P.O. Box 2000, Sacramento, CA 95812.2000
Info: (916) 341-5300, FAX: (916) 341-5400, Web: http://www.waterboards.ca.gov/waterrights

STATE WATER RESOURCES CONTROL BOARD
2012 MAY -9 PM 2:03
DIV OF WATER RIGHTS SACRAMENTO

PETITION FOR CHANGE

(WATER CODE 1700)

___Point of Diversion, _X_ Point of Rediversion, _X_ Place of Use, _X_ Purpose of Use, ___Split
Application 5638 Permit 11887 License

If the change petition is being submitted for the purpose of requesting to split the water right between two or more owners, see page 2.

I (we) hereby petition for change(s) noted above and shown on the accompanying map and described as follows:

Point of Diversion or Rediversion: (Give coordinate distances in California Coordinates, NAD 83, or other ties as allowed by CCR, tit. 23, section 715. Also provide the 40-acre subdivision in which the present and proposed points of diversion lie.)
Present: See Supplement
Proposed: See Supplement

Place of use (If irrigation, then state number of acres to be irrigated within each 40-acre tract.)
Present: See Supplement
Proposed: See Supplement

Purpose of Use
Present: See Supplement
Proposed: See Supplement

GIVE REASON FOR PROPOSED CHANGE: See Supplement

WILL THE OLD POINT OF DIVERSION OR PLACE OF USE BE ABANDONED: (yes or no) NO

WATER WILL BE USED FOR See Supplement PURPOSES.

I(we) have access to the proposed point of diversion or control the proposed place of use by virtue of? Ownership _____, lease _____, verbal or written agreement _____. If by lease or agreement, state the name and address of party(s) from whom access has been obtained.
See Supplement

Are there any persons taking water from the stream between the old point of return flow and the new point of return flow? (yes or no) YES. Give name and address of any person(s) taking water from the stream between the present point of diversion or rediversion and the proposed point of diversion or rediversion, as well as any other person(s) known to you who may be affected by the proposed change.
See Attachment

A copy of the petition must be provided to the California Department of Fish and Game (DFG). Indicate the date that the petition was provided to DFG and provide a copy of the transmittal letter to DFG: See Cover Letter

All petitioners must sign at the bottom of page 2.

Fill out this section only if you are requesting to split a water right among multiple owners.

REQUEST FOR DIVISION OF LICENSE/PERMIT

Request to divide License/Permit __N/A__ issued on Application _____into _____ licenses/permits. Fill out and attach a separate sheet of paper if the water right will be divided among more than two owners, or you need additional space.

ITEM	First Owner	Second Owner
Name:		
Address:		
Phone Number:		
Source:		
Direct Diversion Quality Assigned in Gallons per day(gpd) or Cubic Feet Per Second (cfs):		
Storage Quantity Assigned (in Acre Feet)		
Maximum Rate of Diversion to Offstream Storage (cfs)		
Maximum Amount (afa)		
Diversion Season:		
Point(s) of Diversion in CA Coordinates (NAD 83)		
Place of Use (APN Number)		
Purpose(s) of Use		
Note: A map showing the place of use boundaries must be submitted.		

All Petitioners Must Sign Below:

THIS **CHANGE DOES NOT INVOLVE AN INCREASE IN THE AMOUNT OF THE APPROPRIATION OR SEASON OF USE.**
I (we) declare under penalty of perjury that the above is true and correct to the best of my (our) knowledge and belief.

Dated MAY 3, 2012 at Sacramento, California

First Owner's Signature and Telephone Number

(916) 978-5201
Second Owner's Signature and Telephone Number

NOTE: All petitions must be accompanied by the filing fee (see fee schedule at www.waterrights.ca.gov) made payable to the State Water Resources Control Board and an $850 fee made payable to the Department of Fish and Game must accompany a change petition. Separate petitions are required for each water right.

Supplement to Reclamation's Petition for Change
Permitted Applications 23, 234, 1465, and 5638

This petition involves requested changes to the following permitted applications and associated permits and license pursuant to Water Code §§1700 and 1707.

Application	Permit	License
23	273	1986
234	11885	
1465	11886	
5638	11887	

Present Holder of Water Right

Bureau of Reclamation
Mid-Pacific Region, MP-460
Attention: Mr. Bob Colella
2800 Cottage Way
Sacramento, CA 95825

Telephone: (916) 978-5256
Email: rcolella@usbr.gov

This petition facilitates implementation of the Stipulation for Settlement dated September 13, 2006, in the matter of *Natural Resources Defense Council, et al., v. Kirk Rodgers, et al.*, United States District Court, Eastern District of California, Civ. Case No. S-88-1658-LKK/GGH (Settlement), as authorized and directed by the San Joaquin River Restoration Settlement Act, PL 111-11, 123 Stat. 1349 (Settlement Act).

General/Background

This petition requests that additional points of rediversion downstream of Friant Dam be added to the subject permit and that the San Joaquin River beginning at Friant Dam and ending at the designated downstream point be added to the place of use for the dedication of instream flows for the purpose of preservation and enhancement of fish and wildlife resources. Water will be released to the natural watercourse of the San Joaquin River for this instream dedication, but due to capacity issues in the natural channel, existing constructed channels may be utilized to facilitate flow throughout the designated stretch of the river.

This petition also requests the authorization of preservation and enhancement of fish and wildlife resources as an authorized purpose of use under the subject permit/license.

Approval of this petition would authorize the dedication of releases of water previously stored in Millerton Reservoir or bypassed through Friant Dam for instream use. The dedication would occur from Friant Dam to the Sacramento-San Joaquin Delta Estuary (Delta), and would also authorize the instream conveyance of water in order to meet existing obligations in lieu of making such deliveries from the Delta-Mendota Canal. Other than adding reaches of the San Joaquin River and Bypass System, no expansion of the authorized places of use is necessary or

requested. Water would be used by the permittee concurrently for instream beneficial use and for existing delivery obligations within the existing authorized places of use.

Water previously stored or bypassed is proposed to be released at Friant Dam into the downstream 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 in the old San Joaquin River channel 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 old San Joaquin River channel and would also continue to flow through the Eastside Bypass to Bear Creek. Water would be rediverted along the Eastside Bypass at a designated location north and south of the Mariposa Bypass. Water in Bear Creek would thence continue to flow into the San Joaquin River.

The San Joaquin River through the confluence with the Merced River, including portions of the Eastside and Mariposa Bypasses described in this petition, and then continuing through to the Delta channels from the San Joaquin River near Vernalis to the Jones and Banks pumping plants, would be added to the place of use for the dedication of instream flows for the purpose of preservation and enhancement of fish and wildlife resources. In addition, authorization would also be granted to redivert water at Jones and Banks pumping plants and at the San Luis Dam for potential recapture for delivery within the existing authorized place of use in order to meet demands of the Central Valley Project (CVP) Friant Division Contractors. Additional rediversion points have been identified and analyzed at a programmatic level in the Public Draft Program Environmental Impact Statement/Environmental Impact Report (DPEIS/R), dated April, 2011, as alternatives B1, C1, and C2 which consist of existing or modified facilities at Patterson Irrigation District, West Stanislaus Irrigation District and the Banta-Carbona Irrigation District, or new facilities constructed as part of the San Joaquin River Restoration Program (SJRRP). Should any of these facilities be considered through site specific analysis for inclusion in the SJRRP, and specifically in the Recapture and Recirculation Plan, Reclamation will seek modifications of its water rights to add points of rediversion accordingly.

The physical location of each numbered reach is presented within the Restoration Area discussion in the Executive Summary to the DPEIS/R and is also shown in Figure 1-2 of that document. The DPEIS/R is incorporated herein by reference and is available for public review at the following website: http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=2940.

Releases to Be Made Under this Petition for Change (See Table 2-5 of the DPEIS/R)[1,2]

Calendar Year	Flow Type	Begin Releases	End Releases
2012	Interim	January 1	December 31
2013	Interim	January 1	December 31
2014, and thereafter	Restoration	January 1	December 31

Tables 13-63 through 13-68 of the DPEIS/R show maximum nonflood Friant Dam releases and associated total water quantities by water year type. Average simulated flow of water under this action within downstream reaches of the San Joaquin River and bypasses for various water year types are presented in Tables 13-69 through 13-96, 13-99, 13-100, 13-103, 13-104, 13-107, and 13-108 of the DPEIS/R.

Relationship Among the DPEIS/R, the DPEIS/R Action Alternatives, and This Petition

The changes to Reclamation's permit requested in this petition are limited to only those actions for which a project-level of National Environmental Policy Act/California Environmental Quality Act (NEPA/CEQA) compliance is indicated in Table 2-2 of the DPEIS/R (project-level actions). These actions are the same under all six action alternatives evaluated in the DPEIS/R. Water rights changes to implement those actions for which a program-level of NEPA/CEQA compliance is indicated in Table 2-2 of the DPEIS/R (program-level actions), such as additional rediversion points on the San Joaquin River under alternatives B1, B2, C1, and C2, are not being requested in this petition, however those changes will be requested in subsequent petitions following completion of project-level compliance for those elements, as appropriate. Therefore, this petition is limited to the following actions, as more specifically described in this petition under Points of Rediversion, Places of Use, and Purposes of Use:

1. Reoperation of Friant Dam and downstream flow control structures to route Interim and Restoration Flows through the following: Restoration Area River Reaches 1A, 1B, 2A, 2B, 3, 4A, 4B1, 4B2, and 5; Eastside Bypass Reaches 2 and 3[3]; and Mariposa Bypass. Flows would be limited to then-current channel capacities to be reported to the State Water Resources Control Board (SWRCB) prior to their introduction and consistent with the flow release schedule. Flows would be reduced as needed

[1] Source: Stipulation for Settlement dated September 13, 2006, in the matter of *Natural Resources Defense Council, et al., v. Kirk Rodgers, et al.*, United States District Court, Eastern District of California, Civ. Case No. S-88-1658-LKK/GGH. Note that Interim Flows for 2009 and from February 1, 2010 through September 30, 2010 (Interim Flows for Water Year 2010) were released pursuant to Order WR 2009-0058-DWR approving a temporary transfer, and the Water Year 2010 Interim Flows Project Environmental Assessment/Initial Study released in September 2009. Interim Flows for Water Year 2011 were released pursuant to Order WR 2010-0029-DWR and the Water Year 2011 Interim Flows Final Supplemental Environmental Assessment (SEA) released in September 2010. Interim Flows for Water Year 2012 were released pursuant to the Approval Order dated September 30, 2011, and the SEA released in September 2011.

[2] Begin dates for flows that are shown in these tables are approximate. Reclamation requests that the order granting this petition reflect this point.

[3] See Figure 1-2 of the DPEIS/R for locations of the Restoration Area River Reaches and the Eastside Bypass Reaches.

consistent with the Physical Monitoring and Management Plan for Physical Conditions within the Restoration Area, Appendix D of the PEIS/R, and would not exceed the maximum nonflood releases shown in Table 13-63. No program-level modifications for increased capacity, or program-level activities for any other purpose, would be involved in this action, because Interim and Restoration Flows would not exceed then-current channel capacities.

2. Recapture Interim and Restoration Flows in the Restoration Area (from Friant Dam to the confluence with the Merced, as depicted in Figure 1-2 of the DPEIS/R).

3. Recapture Interim and Restoration Flows at existing CVP and State Water Project (SWP) facilities in the Delta.

Generally, data on the quantities and timing of flow releases and recapture subject to this petition are presented in the DPEIS/R for Alternatives A1 and A2. While these data are common to all action alternatives presented in the DPEIS/R, any additional rediversion points on the San Joaquin River under alternatives B1, B2, C1, and C2 to the DPEIS/R would be the subject of future water rights changes and are not addressed in this petition. See discussion in Section 28.1.2 of the DPEIS/R, State Requirements, California Water Code (Water Rights) for a description of the role of the DPEIS/R in supporting compliance with these State Requirements. Among those water rights changes to implement program-level activities that Reclamation could include in future petitions to the SWRCB would be the addition of points of rediversion at the following locations along the San Joaquin River.

- Intake facility for Patterson Irrigation District, Located N2004071 E6392678 California Coordinate System, Zone 3, NAD 83, being within the SW ¼ of Section 15, T 5S, R8E, M.D.B.&M.

- Intake facility for West Stanislaus Irrigation District, Located N2036021 E6358704 California Coordinate System, Zone 3, NAD 83, being within the SE ¼ of Section 16, T4S, R8E, M.D.B.&M.

- Intake facility for Banta-Carbona Irrigation District, Located N2083018 E6327281 California Coordinate System, Zone 3, NAD 83, being within the SE ¼ of Section 33, T2S, R6E, M.D.B.&M.

The DPEIS/R was not finalized in time for release of Interim Flows scheduled to begin on October 1, 2011, for water year (WY) 2012. Therefore, pursuant to California Water Code §§ 1725 and 1707, Reclamation also filed petitions for temporary transfer covering releases for WY 2012 only. An Approval Order was issued on September 30, 2011 for WY 2012. That Approval Order is conditioned to terminate upon issuance of an order approving this petition.

Points of Diversion and Rediversion

Present Point of Diversion and Rediversion

San Joaquin River, Tributary to Suisun Bay

Coordinate Description
Points of diversion and rediversion are at Friant Dam. The points of diversion and rediversion are the same as on file with the SWRCB for Applications 23, 234, 1465, and 5638.

Friant Dam: North 39° 30' West 2,200 feet from S¼ corner of Section 5, T11S, R21E, M.D.B.&M, being within the NW¼ of SW¼ of Section 5, T11S, R21E, M.D.B.&M.

Proposed Points of Rediversion to be Added

The proposed points of rediversion to be added are depicted on Map No. 1785-202-50, enclosed with this petition. Rediversion of water would occur at the proposed locations instead of at the Friant-Kern and Madera canals, but within currently authorized season of use and diversion rates.

Proposed Points of Rediversion to be added upstream of the Delta are:

A. Mendota Dam, Located N 1745375 E 6598943 California Coordinate System, Zone 3, NAD 83, being within the SE ¼ of NE ¼ of Section 19, T13S, R15E, M.D.B.&M., including intakes to the following canals:

> Main Canal, Located N 1741821 E 6599844 California Coordinate System, Zone 3, NAD 83, being within the NE ¼ of Section 19, T13S, R 15E;
>
> Outside Canal, Located N 1741896 E 6599689 California Coordinate System, Zone 3, NAD 83, being within the SE ¼ of Section 19, T13S, R 15E;
>
> Columbia Canal, Located California Coordinate System, N 1746420 E 6605595 Zone 3, NAD 83, being within the NE 1/4 of Section 20, T13S, R 15E;
>
> Helm Ditch, Located N 1745022 E 6598787 California Coordinate System, Zone 3, NAD 83, being within the NE ¼ of Section 19, T13S, R 15E;
>
> Firebaugh Canal Water District Canal, Located N 1741821 E 6599844 California Coordinate System, Zone 3, NAD 83, being within the SE 1/4 of Section 19, T13S, R 15E.

B. Intake to the Arroyo Canal, Located N 1816307 E 6561446 California Coordinate System, Zone 3, NAD 83, being within the SW ¼ of Section 12, T11S, R13E, M.D.B.&M.

C. Intake to the Sand Slough Control Structure, Located N 1862535 E 6535468 California Coordinate System, Zone 3, NAD 83, being within the NE ¼ of Section 31, T9S, R13E, M.D.B.&M., for conveyance through the Eastside Bypass.

D. Along the East Side Bypass, Located N 1883703, E 6523784 California Coordinate System, Zone 3, NAD 83, being within the NW ¼ of Section 11, T9S, R12E (at Lone Tree Unit, Merced NWR)

E. Intake to the Mariposa Bypass Control Structure, on the Eastside Bypass, Located N 1895936 E 6505198 California Coordinate System, Zone 3, NAD 83, being within the SE ¼ of Section 30, T8S, R12E, M.D.B.&M.

F. Along the Eastside Bypass, Located N 1914452 E 6480299, California Coordinate System, Zone 3, NAD 83, being within the NE ¼ of Section 8, T 8S,11E M.D.B.&M.
(at East Bear Creek Unit, San Luis National Wildlife Refuge) (SLNWR).

Proposed Points of Rediversion to be added at the Delta are:

G. Jones Pumping Plant, Located N 2114400 E 6248073, California Coordinate System, Zone 3, NAD 83 being within SW ¼ of SW ¼ Section 31, T1S, R4E, M.D.B.&M.

H. Banks Pumping Plant, Located N 2115990 and E 6237838, California Coordinate System, Zone 3, NAD 83, being within the SW ¼ of Section 35, T1S, R3E, M.D.B.&M.

Proposed Point of Rediversion to be added for offstream storage is:

I. San Luis Dam as a point of rediversion, Located N 1883703 E 6523784 California Coordinate System, Zone 3, NAD 83, being within SW ¼ of SE ¼ of Section 15, T10S, R8E, MDB& M. No redistribution of any storage right is necessary or requested. The method of rediversion would change (23 CCR §791(e)) for the additional point of rediversion at San Luis Dam for water previously stored or bypassed under the subject permits.

Places of Use

Present Places of Use

See map numbers 214-212-37 and 214-212-3331, on file with the SWRCB, for Application 5638, and for Applications 23, 234 and 1465, respectively, for places of use. Place of use for Application 5638 also includes place of use shown on map number 1785-202-14 on file with the SWRCB.

Proposed Places of Use to be Authorized for Instream Beneficial Uses

The proposed places of use to be authorized for instream beneficial uses are indicated on Map No. 1785-202-50, enclosed with this petition. This place of use is to be authorized for the dedication of instream flows for those periods of time that Reclamation applies the water to

instream use, and for the purpose of preservation and enhancement of fish and wildlife resources, pursuant to Water Code §1707. Instream flow releases are within specific quantified limits shown in Table 2-4 to the DPEIS/R and would be in accordance with the then-existing channel capacity determinations as described in section 2.4.1 of the DPEIS/R.

Upper Reach: Friant Dam, located North 39° 30' West 2,200 feet from S¼ corner of Section 5, T11S, R21E, M.D.B.&M, being within the NW¼ of SW¼ of Section 5, T11S, R21E, M.D.B.&M.

Lower Reach: Delta channels from the San Joaquin River near Vernalis to the Jones and Banks Pumping Plants.

Purposes of Use

Present Purposes of Use

The combined purposes of use for all applications are domestic, irrigation, incidental domestic, stock watering, municipal, and recreation, as on file with the SWRCB.

Proposed Purpose of Use to be Added

Add the purpose of preservation and enhancement of fish and wildlife resources. Pursuant to California Water Code § 1707 and Title 23 C.C.R. § 666 (a) and (b), water will be taken under control for fish and wildlife preservation and enhancement use through (1) the collection of water to storage for downstream release by exercising existing storage rights at Friant Dam and (2) through bypass of flows at Friant Dam by exercising existing direct diversion rights at Friant Dam. This purpose of use is to be added for beneficial use of water within the reach of the San Joaquin River added to the place of use for dedication of instream flows, as shown on map 1785-202-50. This purpose of use is also to be added within the existing places of use depicted on maps 214-212-37 and 214-212-3331, on file with the SWRCB, but only to lands within the boundaries of the East Bear Creek Unit of the SLNWR and the Lone Tree Unit of the Merced NWR as shown on map 1785-202-50.

Reasons for Proposed Change

This petition is for dedication, for those periods of time that Reclamation applies the water to instream use, of instream flows released from Millerton Reservoir or bypassed through Friant Dam for the purpose of preservation and enhancement of fish and wildlife resources pursuant to Water Code § 1707. In addition, Reclamation will make use of instream conveyance by means of the San Joaquin River to meet obligations of the CVP under existing contracts and agreements. As noted above, this petition facilitates implementation of the Settlement as authorized and directed by the Settlement Act.

Persons Who May Be Affected by the Proposed Changes

See attachment of persons who may be affected by the proposed changes.

No Increase in Entitlement

The total estimated quantity of water proposed to be released under this petition for instream flow purposes will be up to 623,000 acre-feet per year, measured at Gravelly Ford after Reach 1 losses, as shown in Table 2-4 of the DPEIS/R. Reclamation would make water available by releasing or bypassing water at Friant Dam pursuant to the subject permits. Absent the proposed action, the water subject to this petition would 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. Nor would there be any changes to, nor would Reclamation choose to operationally exceed, currently authorized diversion rates and quantities.

See Tables 1 through Table 7 of the Water Operations Modeling Output Attachment to Appendix H, Modeling, of the DPEIS/R, for comparisons of the monthly averages of simulated end-of-month Millerton Lake storage with and without Alternatives A1 and A2 (and common to all action alternatives). Also see Table 8 through Table 21 of this same Attachment for comparisons of the monthly averages of simulated diversions at Friant-Kern and Madera canals with and without Alternatives A1 and A2 (and common to all action alternatives). This petition meets the conditions specified in Water Code §1707(b), subsections (1) through (3).

No Legal Injury to Other Legal Users of Water

Absent the proposed action, that water, in excess of flood flows, that is the subject of this petition would have remained in storage at Millerton Reservoir or would have been diverted or rediverted into the Madera and Friant-Kern canals for consumptive use in the Friant Division service area of the CVP. Without the proposed action, the only water subject to release (absent flood flows) from Friant Dam to the San Joaquin River would be water (1) released pursuant to various Holding Contracts for settlement of water rights to maintain 5 cubic feet per second (cfs) flow at Gravelly Ford and to maintain a "live stream" at that point, and (2) in the event that Reclamation is unable for any reason to deliver a substitute supply from the Delta-Mendota Canal or other sources, Reclamation shall, under stated terms and conditions of the Exchange Contract and various water rights adjustment and settlement contracts, make up required quantities by making releases of available storage from Millerton Lake. Reclamation makes no other nonflood releases intended to satisfy downstream users of water. Therefore, absent the proposed action, the only nonflood flows that Reclamation would release at Friant Dam are flows to maintain 5 cfs at Gravelly Ford, and any flows required pursuant to the terms and conditions of the Exchange Contract and various water right and settlement adjustment contracts. These releases will remain unchanged under approval of the subject petition. No other nonflood releases are made with intent for use by any entity downstream of Friant Dam.

The DPEIS/R presents data on the potential changes in timing and quantity of surface water storage, flows, and diversions, as well as groundwater pumping, for six action alternatives. As previously mentioned, data on the quantities and timing of flow releases and recapture subject to this petition are presented in the DPEIS/R for Alternatives A1 and A2. While these data are common to all action alternatives presented in the DPEIS/R, additional rediversion on the San

Joaquin River under alternatives B1, B2, C1, and C2 would be the subject of future water rights changes and are not addressed in this petition. References made in the following sections to data presented in the DPEIS/R refer to results presented for Alternatives A1 and A2, which represent project-level changes common to all action alternatives and relevant to this petition.

No legal injury to downstream prior right and riparian water right holders; minimization of flood risks.

Interim and Restoration Flows released under the proposed change and dedicated pursuant to California Water Code § 1707 represent water that has either (1) been previously diverted to storage in Millerton Lake during the existing authorized storage season, or (2) water that was bypassed at Friant Dam during the existing authorized direct diversion season. Water that would be present in the channel under the proposed change would be water diverted under existing permit 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 released and dedicated without legal injury to downstream prior right and riparian water right holders.

If release of water from Friant Dam is required for flood control purposes, concurrent Interim and Restoration flows would be reduced by an amount equivalent to the required flood control release. If flood control releases from Friant Dam exceed the concurrent scheduled Interim and Restoration Flows under the Settlement Act, no additional releases above those required for flood control would be made for purposes of implementing the Settlement Act. See section 2.4.1 of the DPEIS/R for information on minimization of flood risks and on levee slope stability and safety measures.

No legal injury to San Joaquin River Holding Contractors

The releases from Millerton Reservoir pursuant to this action 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. The estimated maximum proposed nonflood releases from Friant Dam described in Table 2-4 of the DPEIS/R assume that up to 230 cfs of these flows are needed to maintain the 5 cfs flow requirement at Gravelly Ford.

No legal injury to San Joaquin River Exchange Contractors and other Water Rights Settlement Contractors

As discussed above, the proposed change would not significantly adversely affect water delivery quantities to contractors outside the Friant Division, including the San Joaquin River 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 Delta Mendota Canal if such releases become necessary under the terms and conditions of the Exchange Contract and various water right and settlement adjustment contracts. Reclamation intends that necessary deliveries from the Delta Mendota Canal 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 and the Central California Irrigation District. The San Luis Canal Company operates Sack Dam at the end of Reach 3 and delivers water to the Arroyo Canal. The Central California Irrigation District operates and maintains Mendota Dam in Reach 2 and would release Interim and Restoration Flows from Mendota Dam.

Section 16.3.4 of the DPEIS/R discusses impacts due to altered inundation and/or soil saturation under the action alternatives at the project-level. Changes in duration, frequency, and seasonality of flows could affect agricultural production in the Restoration Area, by inundating sites or saturating soil in the rooting zone. Changes in cropping patterns or grazing practices could be necessary at some locations. With implementation of Mitigation Measure LUP-5, these impacts would be reduced but would remain potentially significant and unavoidable. The Physical Monitoring Management Plan (Appendix D to the DPEIS/R) has been developed in consultation with downstream water districts and landowners in order to avoid or reduce inundation and soil saturation effects to agricultural land. That plan includes installation of monitoring wells, establishment of thresholds for non-damaging releases, operating procedures to avoid impacts, and projects to increase conveyance capacity over time.

No legal injury to Friant Division CVP Water Service Contractors

Release of flows at Friant Dam to implement the proposed action would reduce water supply deliveries to Friant Division contractors. Average simulated Class I delivery volumes with and without the proposed action are shown in Tables 3 and 4 of the Additional Changes to Central Valley Project and State Water Project Operations Attachment to Appendix J, Surface Water Supplies and Facilities Operations, of the DPEIS/R. Also see Tables 7 and 8 of this same Attachment for average simulated Class II delivery volumes. These results assume that water recaptured downstream pursuant to Paragraph 16(a) of the Stipulation for Settlement is not returned for use by the Friant Division contractors, and therefore represent the "upper-bound" of potential water supply reduction to Friant Division contractors as a result of Interim and Restoration Flows. Although recirculation of Interim and Restoration flows is addressed at a program-level only in the DPEIS/R, Figure 2-7 provides information regarding major facilities that may be used in recapture and recirculation of Interim and Restoration Flows.

The proposed action could result in changes in quantities of water delivered to Friant Division contractors, but those contractors would not likely change farming practices. However, changes to cropping patterns or other agricultural practices are possible. Friant Division demands would be met by the potential for recapture of water and also through increased groundwater pumping.

Table 13-113 of the DPEIS/R, Potential Return of Recaptured Water to Friant Pursuant to 16(a) Average Annual Values, shows maximum potential return of recaptured Interim and Restoration flows to the Friant Division. Nearly 60,000 acre-feet of water annually on average could potentially be returned to the Friant Division through recapture.

As described in Section 16.3.4 of the DPEIS/R, implementation of the action alternatives could result in average reduction in irrigated acres of approximately 1,000 acres within the Friant Division. Consistent with Paragraph 16(b) of the Settlement, Reclamation would identify delivery reductions to Friant Division long-term contractors associated with the release of Interim and Restoration Flows, as part of the Recovered Water Account stipulated for implementation under Paragraph 16(b). Paragraph 16(b) also provides for the delivery of water during wet hydrologic conditions to Friant Division long-term contractors at a cost of $10 per acre-foot. Pursuant to Part III of the Omnibus Public Land Management Act of 2009 (Public Law 111-11), the Secretary of the Interior is developing proposed guidelines for projects designed to reduce, avoid, or offset the quantity of expected water supply impacts to Friant Division long-term contractors caused by Interim and Restoration Flows. This process includes an allocation of up to $50 million, subject to the appropriation and availability of funds, to cost share in local groundwater banking projects occurring parallel to and separate from development of the DPEIS/R. Impacts to agricultural lands in the Friant Division, however, would remain significant and unavoidable.

Tables 12-16, and 12-20, and Tables 12-18 and 12-22, in Section 12.3.3 of the DPEIS/R, Hydrology – Groundwater, show average annual simulated groundwater pumping in the event of full recapture and recirculation (Low Scenario) and in the event of no recapture and recirculation (High Scenario), respectively, for CVP contractors in the Friant Division.

No legal injury to other Central Valley Project and State Water Project Contractors, including South-of-Delta Water Service Contractors

Section 14.3.4 of the DPEIS/R concludes that, under all action alternatives, project-level impacts to water quality at the Central Valley Project and State Water Project pumping facilities in the Delta would be less than significant and beneficial.

Section 13.3.4 of the DPEIS/R concludes that minor changes in Delta operations due to Interim and Restoration Flows could result in other minor changes throughout the Central Valley Project and State Water Project. Tables 121 through 126 of the Water Operations Modeling Output – CalSim Attachment to Appendix H of the DPEIS/R show changes in monthly averages of simulated San Luis Reservoir storage for various water year types. Tables 13-109 and 13-110 of Chapter 13.0 Hydrology – Surface Water Supplies and Facilities Operations of the DPEIS/R, show changes in simulated average exports through Banks and Jones Pumping Plants. Changes in Delta pumping represent the upper limit of potential return of recaptured water for delivery to the Friant Division following implementation of Interim and Restoration Flows. Appendix J to the DPEIS/R, Surface Water Supplies and Facilities Operations, shows potential changes to San Luis Reservoir storage deliveries due to changes in Delta pumping in response to Interim and Restoration Flows that could occur under existing regulatory requirement and institutional agreements. Tables 17 and 18 of Appendix J show average simulated end-of-month San Luis Reservoir storage. In addition, Section 13.3.4 of the DPEIS/R concluded that modeling shows that north-of-Delta storage increases are less than 2 percent and north-of-Delta delivery changes are less than 1 percent.

No legal Injury to Eastside Division Water Service Contractors or Water Users on Eastside Tributaries

As discussed above, approval of this petition would not significantly adversely affect water delivery quantities to contractors outside the Friant Division.

Changes in flow under the proposed action downstream of Reach 5 would be comparatively small. Changes in surface water supplies and facilities operations are described in the DPEIS/R as less than significant Table 13-52 to the DPEIS/R. Modeling presented in the DPEIS/R shows that changes in tributary storage facilities would be less than five percent. Therefore, CVP contractors taking delivery from New Melones Reservoir would not be significantly adversely affected. See Tables 13-97 and 13-98, Tables 13-101 and 13-102, and Tables 13-105 and 13-106 of the DPEIS/R for simulated river inflows from the Merced, Tuolumne, and Stanislaus rivers, respectively. Also see discussions on water quality control objectives, below.

No Legal Injury to in-Delta Diverters and Contra Costa Water District

Section 13.3.3 of the DPEIS/R concludes that, under all action alternatives, project-level impacts to surface water elevations in the south Delta would not affect water users' ability to divert water during the irrigation season, and impacts are less than significant. That section also concludes that the action alternatives at the project-level would not result in a change of recurrence of Delta excess conditions at a frequency potentially impacting Contra Costa Water District's ability to fill Los Vaqueros Reservoir, and impacts are less than significant.

Section 14.3.4 of the DPEIS/R concludes that, under all action alternatives, project-level impacts to water quality at Contra Costa Canal Pumping Plant No. 1, Old River at Los Vaqueros Intake, Victoria Canal Intake, and City of Stockton's proposed Delta Intake would be less than significant and beneficial.

Furnishing Water for Fish Hatchery Purposes

Approval of this petition would not interfere with any customary provision, by means of pipeline from Friant Dam, of up to 35 cfs of incidental flow to the San Joaquin Fish Hatchery. This flow is already an incidental component of the quantity of water released from Friant Dam to maintain the 5 cfs requirement at Gravelly Ford pursuant to the Holding Contracts.

Environmental Impacts

Groundwater Resources:

As discussed above, Tables 12-16 and 12-20, and Tables 12-18 and 12-22, in Section 12.3.3 of the DPEIS/R, Hydrology – Groundwater, show average annual simulated groundwater pumping in the event of full recapture and return (Low Scenario) and in the event of no recapture and return (High Scenario), respectively, for CVP contractors in the Friant Division. Also, Tables 12-17 and 12-21, and Tables and 12-19 and 12-23 show average annual groundwater depth under Low and High scenarios, respectively, for these contractors. The DPEIS/R states in Section

12.3.3 that implementing the action alternatives would potentially increase reliance on groundwater within the Friant Division, and therefore it is anticipated that the proposed action would result in adverse impacts to groundwater levels and quality. This impact is considered potentially significant and unavoidable.

However, Impacts GRW-2 and GRW-3, described in Section 12.3.3 of the DPEIS/R, find that, with implementation of Appendix D, Physical Monitoring and Management Plan, changes in groundwater levels and groundwater quality resulting from the action alternatives along the San Joaquin River from Friant Dam to the Delta would be less than significant.

Air Quality and Climate Change:

Section 4.3.4 of the DPEIS/R finds that reoperating Friant Dam to make releases available would create no new sources of pollutants and existing water recapture equipment that could be used are subject to permitting and other air quality requirements. Impacts to air quality would be less than significant from project-level actions. In addition, indirect and other air quality impacts, including any due to land fallowing and recreation activities, would be less than significant. Section 7.3.3 of the DPEIS/R finds that green house gas (GHG) emissions under the action alternatives could be increased through traffic from increased recreational visitors, and increased by increased groundwater pumping and changes in CVP/SWP energy generation and consumption. Although carbon sequestration due to an increase in riparian vegetation is anticipated, the amount is uncertain and, thus, none was assumed in the DPEIS/R. Given the uncertainty of ultimate GHG emissions after implementation of mitigation, this impact could result in a considerable contribution to a significant cumulative impact and, therefore, the impact is assumed to be potentially significant and unavoidable.

Other Environmental Resources:

Potential adverse impacts to surface water supplies and facilities operations, land use, socioeconomics, utilities and service systems, water quality, fish, and wildlife are as described previously in the section No Injury to Other Legal Users of Water, or in the subsequent section, No Unreasonable Effect Upon Water Quality, Fish, Wildlife, or Other Instream Beneficial Uses. Potential impacts to other environmental resources are described in the DPEIS/R, and include less than significant or beneficial impacts.

No unreasonable effect upon water quality, fish, wildlife, or other instream beneficial uses

Water Quality:

See Section 14.3.4 of the DPEIS/R for analysis of Surface Water Quality project-level impacts. Also see section 5.4.4 to the DPEIS/R regarding Delta salinity and flow changes.

At Millerton Lake, surface water quality impacts at the project-level are not likely to result in violations of existing water quality standards, substantial water quality changes that adversely affect beneficial uses, or substantive impacts on public health. Impacts would be less than significant.

From Friant Dam through Reach 4A, water quality impacts would be less than significant and beneficial, and less than significant in Reach 5 and in the bypass system. From Reach 4B to the Merced River, any increases in constituents and temperature through changes in time and locations of flows and mobilization (but not any introduction of new contaminants) in various segments of the channel would be less than significant. No additional violations of any water quality standards would be caused.

From the Merced River to the Delta, there would be no additional violations of any water quality standards or substantial water quality changes that would adversely affect beneficial uses, or have substantial impacts on public health.

There would be no impact to X2 position compliance.

Impacts to Delta salinity at Vernalis and the interior Delta monitoring stations would be less than significant and beneficial. Impacts to Delta salinity at Jersey Point, Emmaton, and Collinsville would be less than significant.

Fish, Wildlife, and Other Instream Beneficial Uses:

Section 5.4.4 of the DPEIS/R addresses project-level impacts to fish species from implementation of the action alternatives. Generally high quality water would be released from Millerton Reservoir into River Reach 1. The effects upon fisheries generally range from no impact, less than significant, to beneficial. See Table 5-3 of the DPEIS/R, Summary of Environmental Consequences – Fisheries.

Section 5.4.4 of the DPEIS/R states that there would be no effect on Millerton Lake temperatures in the spawning habitat of the lake and shallow-water habitat in the lake is expected to have adequate dissolved oxygen concentrations. See Impact FSH-15, Figures 5-2, Millerton Lake Water Temperature and Dissolved Oxygen and 5-3, Cumulative Frequencies of March through June Simulated Water Temperatures at Four Depths, in Section 5.4.4 of the DPEIS/R.

Implementation of the action alternatives at the project-level would have no direct effect on turbidity for Delta fisheries. The action alternatives would move fish away from the southern Delta where turbidity is relatively low. Resulting impact upon Delta fish species, including Delta smelt and Longfin smelt, would be less than significant. See Impact FSH-33 of the DPEIS/R.

There would be increased diversions at Jones and Banks pumping plants (see Tables 13-109 and 13-110 of the DPEIS/R), but only within the parameters defined by applicable laws, regulations, biological opinions, and court orders in place at the time of operation. The increased diversions could result in higher entrainment risks for fish in the south Delta. However, this increased risk would be within the parameters allowed by applicable laws, regulations, biological opinions, and court orders in place at the time of operation. Additionally, generally higher San Joaquin River inflows and ratios of inflows to reverse flows in Old and Middle River due to the action alternatives would help keep fish away from the south Delta. This effect of the increased inflows and ratios is expected to offset the increased entrainment risk of south Delta fish from increased exports, resulting in no net change in fish entrainment. Interim and Restoration Flows reaching the Delta

would be recaptured at existing facilities within the Delta consistent with applicable laws, regulations, biological opinions, and court orders in place at the time the water was recaptured. Compliance contributes to the determination of a less-than-significant effect of Jones and Banks pumping plant diversions on Delta fishes. See Impacts starting at FSH-34 to the DPEIS/R.

Rediversion of Interim and Restoration Flows within the Restoration Area (i.e., at Mendota Pool, Arroyo Canal, and Lone Tree and East Bear Creek Units) could change at some points. Therefore, these rediversions could potentially adversely impact representative fish species (unlisted species, i.e., hardhead, Sacramento splittail, and striped bass). The temporary nature of rediversions within the Restoration Area, as well as the relatively small quantity of water anticipated to be rediverted in Reach 5, would result in less than significant impacts to movements of migratory fish. See Impact FSH-26 to the DPEIS/R.

Changes in fish habitat conditions, including transport of fine sediment in Reach 1, could adversely impact habitat for representative fish species in the short term. However, the short-term impact would be less than significant, while the long-term impact would be less than significant and beneficial. See Impact FSH-25 to the DPEIS/R.

With the presence of Interim and Restoration flows, San Joaquin Basin fall-run Chinook salmon and steelhead would have access to reaches from Friant Dam to the Merced River, and exposure to diseases potentially borne by hatchery rainbow trout resident in Reach 1. Consequently, there would be increased risk of disease transmission, but this impact would be less than significant. See Impact FSH-29 to the DPEIS/R.

It is anticipated that the Hills Ferry Barrier will be used to block anadromous fish species from moving upstream until the Restoration Area is considered ready for salmon reintroduction. See the Hills Ferry Barrier Effectiveness Report, dated October 2011, and posted at http://www.restoresjr.net for a discussion of observations and near term structural and non-structural modifications that can improve effectiveness.

See Impact FSH-30 of the DPEIS/R for impacts to salmon and steelhead in the Merced, Tuolumne, and Stanislaus rivers. Under the proposed action, flows in these tributaries and Chinook salmon and steelhead habitat would be similar to or greater than without the proposed action, and impacts would be less than significant.

Section 6.3.3 of the DPEIS/R addresses project-level impacts to vegetation and wildlife from implementation of the action alternatives. See Table 6-5 of the DPEIS/R, Summary of Environmental Consequences and Mitigation Measures – Vegetation and Wildlife.

Some special-status species of upland, wetland, and riparian habitats could experience some adverse impacts. Therefore, conservation measures to conserve special-status species would be taken. See Table 2-7 of the DPEIS/R, Conservation Measures for Biological Resources That May Be Affected by Settlement Actions. Also, implementation of Interim and Restoration Flows could enhance dispersal and establishment of invasive plant species in the river and bypass reaches. Therefore, the Invasive Vegetation Monitoring and Management Plan, as described in the attachment to Appendix L of the DPEIS/R, would be implemented to monitor nonnative invasive plants and to take control measures. Populations of special-status species

would benefit from restoring and sustaining riparian and wetland habitat through an implementation of the proposed action that incorporates special-status species conservation measures and invasive species control. Impacts range from less than significant to beneficial.

Proposed Changes are in the Public Interest

Approval of this petition is key to enabling the petitioner to achieve the Settlement's simultaneous goals of restoring and maintaining fish populations in "good" condition in the main stem of the 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 ("Restoration Goal"), while reducing or avoiding adverse water supply impacts to all of the Friant Division long-term Central Valley Project contractors that may result from the Interim and Restoration Flows provided for in the Settlement ("Water Management Goal"). Through the Settlement Act, Congress authorized and directed the petitioner, through the Secretary of the Interior, to implement the Settlement and in doing so to retain, acquire, or perfect all rights to manage and control all Interim and Restoration Flows, subject to applicable provisions of California water law. Therefore, in carrying out the purpose and public policy set forth in the Settlement Act, the proposed changes presented in this petition are in the public interest.

Mitigation Measures

Mitigation measures applicable to identified significant or potentially significant impacts that are associated with the proposed action are identified in the DPEIS/R for each resource area under Impacts and Mitigation Measures. Each Environmental Consequences and Mitigation Measures section for each resource area describes the details surrounding each mitigation measure. Also, Table 2-7 of the DPEIS/R summarizes the conservation goals and associated conservation measures to address all potentially affected Federally listed and/or State-listed species, and all other species identified as candidates, sensitive, or special-status in local or regional plans, policies, or regulations by the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, or the California Department of Fish and Game.

Monitoring and Management Plan

The purpose of Appendix D to the DPEIS/R, Physical Monitoring and Management Plan, is to provide guidelines during implementation of the Settlement for observing and adjusting to changes in physical conditions within the Restoration Area. This Plan consists of five component plans, addressing interrelated physical conditions including flow, groundwater seepage, channel capacity, propagation of native vegetation, and suitability of spawning gravel. Each component plan identifies objectives for the physical conditions within the Restoration Area and provides guidelines for the monitoring and management of those conditions, as shown in Table 1-1 of Appendix D, Physical Components of the SJRRP Monitoring and Management Plan. The Physical Monitoring and Management Plan is intended to guide potential implementation of immediate actions and to provide the basis for monitoring and management programs for long-term implementation. More detailed monitoring and management programs would be developed, as necessary, to identify specific methods for implementation, including exact monitoring locations, standards for data collection, and guidelines for implementation of long-term management actions. An example of a more detailed plan is the Draft Seepage Management Plan

Attachment to Appendix D, developed to guide monitoring and management of seepage during release of Interim or Restoration flows. The Draft Seepage Management Plan Attachment describes the monitoring and operating guidelines for reducing Interim and Restoration Flows to the extent necessary to address any material adverse impacts that are identified by the groundwater monitoring program and caused by nonflood flow releases at Millerton.

Requested Conditions

In the order approving this petition, Reclamation requests that approval be conditioned as follows.

- Releases for Interim and Restoration Flows under the Settlement Act are in addition to that quantity of releases otherwise required to maintain the 5 cfs requirement at Gravelly Ford and that would be sufficient to provide necessary flow in the river reach from Gravelly Ford pursuant to the obligations of the Holding Contracts executed by Reclamation.

- Petitioner 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, and various water right and settlement adjustment contracts, to the extent such releases would be made in the absence of this change.

- Release of Interim and Restoration Flows is conditioned upon implementation of the Physical Monitoring and Management Plan in Appendix D of the DPEIS/R.

- Interim and Restoration Flows released under the Settlement Act shall be maintained below then-existing channel capacities.

- Copies of public draft and final reports of updated estimates of then-existing San Joaquin River channel capacities shall be provided to the Deputy Director for Water Rights.

- The project-level conservation measures described in Table 2-7 of the DPEIS/R shall be implemented.

- This Order and the conditions specified therein, including authorized releases from 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 and are not, and shall not be construed to function as, any type of a required flow standard applicable to the water rights and water right permits utilized by Reclamation to operate Friant Dam and to serve water to any authorized water user. In the event that there is a different level of Restoration Flows, or an increase, decrease, or material change in the quantity and or timing of Restoration Flows that is made pursuant to the provisions and

procedures of Article 20 to the Settlement (Changes to The Restoration Flows), Reclamation shall diligently file, pursuant to the provisions of the California Water Code, the appropriate water right change petition to amend the applicable conditions of this Order, or of subsequent revisions of this Order, in order to conform to the changes made pursuant to Article 20.

- This Order and the conditions specified therein do not, in and of themselves, operate to dedicate any water to the environment; the dedication occurs when petitioner exercises the option, as authorized and approved by this Order, of using water for instream beneficial uses instead of diverting and subsequently using that amount of water for other authorized purposes of use within the authorized places of use. Neither this Order, conditions specified therein, nor petitioner's later dedication of water for instream beneficial uses requires petitioner to continue to apply a specific amount of water to instream uses in the future.

Consultation, Coordination, and Compliance

Chapter 28 of the DPEIS/R, Consultation, Coordination, and Compliance, describes the activities undertaken to satisfy regulatory requirements as well for public involvement. These regulatory requirements include, but are not limited to, NEPA, CEQA, San Joaquin River Restoration Settlement Act, Federal Endangered Species Act, California Endangered Species Act, and the California Water Code.

Monitoring of Flows Dedicated Pursuant to California Water Code §1707

Reclamation, in coordination with the California Department of Water Resources, would monitor and publicly post river stage and flow conditions at the following locations during all periods when releases are likely to be flowing at these 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);
At the head of the Sand Slough Control Structure (river mile 182);
Vernalis Gaging Station;
Jones Pumping Plant;
Clifton Court Forebay.

A copy of this petition has been furnished to the California Department of Fish and Game (see cover letter).