

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

DIVISION OF WATER RIGHTS

**IN THE MATTER OF LICENSE 1986 AND PERMITS 11885, 11886, AND 11887
OF THE U.S. BUREAU OF RECLAMATION**

**PETITIONS FOR TEMPORARY CHANGE INVOLVING THE
TEMPORARY TRANSFER OR EXCHANGE OF UP TO 76,069 ACRE-FEET OF
WATER FOR INSTREAM FLOW DEDICATION AND REDIVERSION**

SOURCE: San Joaquin River

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

ORDER APPROVING TEMPORARY CHANGES

BY THE DEPUTY DIRECTOR FOR WATER RIGHTS:

1.0 Overview

On January 29, 2021, the U.S. Bureau of Reclamation (Reclamation) submitted four petitions under Water Code sections 1707 and 1725 et seq. (Change Petitions), to the State Water Resources Control Board (State Water Board, or Board), Division of Water Rights (Division) for temporary change to transfer up to 76,069 acre-feet (af) of dedicated instream flows (Restoration Flows) previously stored in Millerton Reservoir and/or taken under control at Friant Dam pursuant to direct diversion rights. If approved, Restoration Flows could be rediverted through Patterson Irrigation District (PID) and Banta-Carbona Irrigation District (BCID) facilities to the Delta-Mendota Canal (DMC) for reuse by Friant Division Central Valley Project (CVP) contractors (Friant Contractors) through direct delivery, exchange, or transfer. The Change Petitions include a request to modify the Net Delta Outflow Index (NDOI) as currently defined by the State Water Board Revised Water Right Decision 1641 (D-1641), consistent with the purpose of the transfer.

In 2013, to facilitate implementation of the San Joaquin River Restoration Program (SJRRP), the State Water Board approved changes for long-term instream flow dedication of Restoration Flows and the rediversion of those flows at specified locations pursuant to Water Code section 1707. (See Order Approving Change and Instream Flow Dedication, October 21, 2013 [hereinafter “2013 Order”].) The 2013 Order anticipated that recapture and recirculation of Restoration Flows could occur in the future at PID and BCID facilities, if authorized by the State Water Board. The Change Petitions relate to these new points of rediversion not authorized in the 2013 Order. Approval of the Change Petitions would provide a means to supply water to the Friant Contractors when there is limited or no

capacity to redirect Restoration Flows at the Jones Pumping Plant and Banks Pumping Plant (Delta Pumps) in the Delta.

The proposed transfer would assist Reclamation in meeting the two primary goals of the San Joaquin River Settlement Act (Public Law 111-11 Title X § 10001 et seq., 123 Stat 991.1349 (2009)): (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 on the Friant Contractors that may result from Restoration Flows. The diversions proposed in the Change Petitions remain subject to applicable provisions in the 2013 Order, Reclamation's License 1986 and Permits 11885, 11886, and 11887, and Biological Opinions (BO's) issued by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) under the federal Endangered Species Act (ESA).

Based on limits under Water Code 1725, the transfer period proposed in the Change Petitions is one year from the date an Order approving the changes is issued. Water subject to the transfer includes Restoration Flows from: (a) water released from Millerton Reservoir that was previously collected to storage and that subsequently remains under Reclamation's dominion and control; and (b) water taken, and subsequently remaining, under Reclamation's dominion and control through the exercise of direct diversion rights at Friant Dam but allowed to pass into the river channel in lieu of being conveyed into and through canals. This Order contains additional monitoring and reporting requirements that build on previous efforts to improve the accounting and tracking of Restoration Flows from Friant Dam to the Delta.

2.0 CRITERIA FOR APPROVING THE TEMPORARY CHANGE

Pursuant to Water Code section 1725, a permittee or licensee may petition the Board to temporarily change the point of diversion, place of use, or purpose of use of water through a transfer or exchange of water. The Board may approve the requested change if the transfer would involve only the amount of water that would have been consumptively used or stored by the permittee or licensee in the absence of the proposed temporary change, would not injure any legal user of the water, and would not unreasonably affect fish, wildlife, or other instream beneficial uses. (Wat. Code, § 1725.)

Pursuant to Water Code section 1707, a permittee or licensee may petition the Board for a change for purposes of preserving or enhancing wetlands habitat, fish and wildlife resources, or recreation in, or on, the water. (Wat. Code § 1707, subd. (a)(1).) The petition may be submitted for any of the purposes described above and may be submitted in combination with a petition to make any other change authorized pursuant to part 2 of division 2 of the Water Code [concerning water right permit and license program]. (Wat. Code § 1707, subd. (a)(2).)

Water Code section 1707, subdivision (b) sets the conditions for the Board's approval:

The board may approve the petition filed pursuant to [Water Code section 1707] subdivision (a), subject to any terms and conditions which, in the board's judgment, will best develop, conserve, and utilize, in the public interest, the water proposed to be used as part of the change, whether or not the proposed use involves a diversion of water, if the board determines that the proposed change meets all of the following requirements: (1) Will not increase the amount of water the person is entitled to use; (2) Will not unreasonably affect any legal user of water; and (3) Otherwise meets the requirements of this division.

3.0 RECLAMATION'S WATER RIGHTS

3.1. Water Rights Established Prior to the Friant Division CVP

Long before the authorization of the Friant Division of the CVP, Miller and Lux, Incorporated, was the owner of extensive land holdings on both sides of the San Joaquin River between Gravelly Ford and a point some miles below the confluence with the Merced River, much of it riparian to the San Joaquin River. Over a long period, Miller and Lux, Incorporated had also initiated and developed appropriative rights to the waters of the San Joaquin River. An extensive adjudication, commonly referred to as the "Haines Decrees" entitled Miller and Lux, Incorporated, and its affiliated companies to most of the flow of the San Joaquin River at Whitehouse gaging station for use on their lands. The lands planted to crops were designated "crop lands" and the lands largely used for livestock pasture were designated as "grass lands." (D-935, p. 80.)

Under the so-called "Purchase Contract" dated July 27, 1939, Reclamation acquired from Miller and Lux, Incorporated, and from Gravelly Ford Canal Company their "grass lands" water rights. The "Exchange Contract" of the same date between the United States and companies formerly affiliated with Miller and Lux, Incorporated, provides for an exchange of water from the Sacramento River (via diversion through CVP pumps in the Delta and conveyance through the Delta Mendota Canal to a delivery point in the Mendota Pool) for water of the San Joaquin River adjudicated for irrigation of the "crop lands." Numerous other rights along the San Joaquin River were also acquired by the United States in anticipation or support of the Friant Division CVP. (D-935, pp. 80-81.)

The Exchange Contract provides for a maximum flow of 2,316 cfs for use on "crop lands." These rights are now vested in the Central California Irrigation District (CCID). Reclamation is obligated to deliver water to Mendota Pool to meet the contracted water supply due to CCID. Importantly, if Reclamation is unable to meet the supply specified in the Exchange Contract from the Delta source, Reclamation is required to release these scheduled flows from Millerton Reservoir. (D-935, p. 82.)

3.2. Decision 935

Reclamation's water rights subject to the Change Petitions are License 1986, and Permits 11885, 11886, and 11887. Details related to these water rights are available online through the Division's eWRIMS electronic database. These rights were considered and approved under State Water Board Decision 935 (1959) (D-935) after the State Water Board held a hearing to consider competing applications¹ to appropriate unappropriated waters of the San Joaquin River and petitions to change point of diversion and place of use under a license to Reclamation in furtherance of the Friant Division of the CVP. (D-935, p. 1.) Subject to a few exceptions, Reclamation had acquired, either by purchase or by providing a substitute water supply, all existing water rights on the San Joaquin River between Gravelly Ford and some 37 river miles below Friant Dam. (*Id.*, p. 13.) Other than certain water right claims upstream of Gravelly Ford that could be satisfied by releases from Millerton Reservoir to Gravelly Ford, to the extent it could be controlled, all water would be appropriated under the applications. (*Ibid.*)

Construction of Friant Dam, which impounds Millerton Reservoir, was completed in 1947 with a storage capacity of 520,500 acre-feet. From Friant Dam, the Madera Canal, with design capacity of 1,500 cubic feet per second (cfs), extends northward 36 miles to the Chowchilla River, and the Friant-Kern Canal, with design capacity of 4,000 cfs, extends southward 153 miles to the Kern River. (D-935, pp. 14-15.) The Friant Division of the CVP provides delivery of water under long-term water service contracts within the boundaries of certain districts along the Madera and Friant-Kern Canals. The anticipated maximum aggregate deliveries under the long-term contracts in any one year were 2,150,000 af, with 750,000 af being a Class 1 supply and up to 1,400,000 af being a Class 2 supply. Class 1 water was considered dependable in almost every year with deficiencies anticipated only in unusually dry years. Class 2 water was that water in excess of Class 1 and, accordingly, was anticipated to be less dependable as to its quantity and time of occurrence. It is available primarily during the spring and early summer months. (*Ibid.*) Class 1 water is more recently described as the first 800,000 af of available supply.²

At the time when the Board adopted D-935, Reclamation estimated that in about one out of four years releases from Millerton Reservoir (over and above those required to accommodate claims along the San Joaquin River between Friant Dam and Gravelly Ford) would be made to provide space for flood control. (D-935, p. 20.) In the hearing, Reclamation estimated that some additional capacity in the Madera and Friant-Kern Canals would be available to capture this water (35,000 af) and that 50,000 af could be diverted and beneficially used in the vicinity of Mendota Pool. By allocating and controlling water in this manner, Reclamation anticipated that 98 per cent of the water entering Millerton Reservoir could be diverted and placed to beneficial use. (*Ibid.*)

Reclamation sought to appropriate a total of 11,500 cfs by direct diversion and 2,800,000 af per annum by storage for irrigation, domestic, municipal, flood control,³ and recreational purposes within a designated service area. (D-935, p. 49.) The State Water Board declined to grant direct diversion rights of up to 5,000 cfs along the San Joaquin River, including at the CVP points of diversion in the Delta serving the Contra Costa Canal

and the Delta-Mendota Canal. The Board found that water released from Millerton Reservoir for use in the vicinity of Mendota Pool would either be for the satisfaction of prior vested rights under the Exchange Contract, or would be water released from storage to provide space in Millerton Reservoir for flood control. Thus, D-935 approved the maximum rate of diversion at Millerton Reservoir of up to 6,500 cfs.

Regarding Reclamation's storage request for up to 2.8 million af, the Board evaluated the combined capacities of Millerton Reservoir, the Madera and Friant-Kern Canals, and diversions between Friant Dam and Gravelly Ford. Taking these capacities to control flows into account, uncontrolled releases were anticipated only in relatively infrequent and short periods of exceptionally high flows into Millerton Reservoir. Reclamation had made no showing of its ability to place these uncontrolled flood releases to beneficial use by direct diversion at points along the San Joaquin River below Friant Dam, including through the Delta Pumps. Therefore, D-935 authorized storage up to 2,210,000 af per annum. (*Id.*, p. 85.)

3.3. 2013 Order

In 2013, to facilitate implementation of SJRRP, the State Water Board approved changes to Reclamation's license and permits to provide for long-term instream flow dedication and the rediversion of those flows at specified locations, pursuant to Water Code section 1707. The 2013 Order added preservation and enhancement of fish and wildlife as an authorized purpose of use under the permits and license, and added various points of rediversion for Restoration Flows located between Friant Dam and the Merced River, with additional points of rediversion for Restoration Flows at the Banks Pumping Plant and the Jones Pumping Plant.

3.4. 2021 Transfer

Reclamation's Change Petitions for transfer have been reviewed by Division staff to ensure that the transfer quantities and season are within the scope of Reclamation's existing rights and that the source of transfer water is authorized under those water rights. The Change Petitions request the temporary addition of these points of rediversion:

Intake facility for PID, located N. 2,004,071 ft. and E. 6,392,678 ft. California Coordinate System, Zone 3, NAD 83, being within SW $\frac{1}{4}$ of Section 15, T5S, R8E, M.D.B.&M.

Intake facility for BCID, located N. 2,083,018 ft. and E. 6,327,281 ft. California Coordinate System, Zone 3, NAD 83, being within SE $\frac{1}{4}$ of Section 33, T2S, R6E, M.D.B.&M.

A total maximum rediversion rate of 40 cfs is proposed for transfer of Restoration Flows at the PID facility. A total maximum rediversion rate of 65 cfs is proposed for transfer of Restoration Flows at the BCID facility.

Reclamation has filed, and the State Water Board has approved, temporary change petitions to add points of diversion for Restoration Flows in 2016, 2017, 2018, 2019, and 2020. The State Water Board understands that the long-term recirculation of Restoration Flows is still under development and not ready for a permanent change.

4.0 IMPLEMENTATION OF THE SETTLEMENT

4.1. Restoration Flows

The historic operation of the Friant Dam resulted in significant portions of the main stem of the San Joaquin River between Friant Dam and the confluence of the Merced River being dry. In 2006, in response to litigation over the impacts of dry reaches on the condition of fish in the San Joaquin River below Friant Dam, the Department of Interior, the Natural Resources Defense Council, and the Friant Contractors reached a Settlement (2006 Stipulation of Settlement in *Natural Resources Defense Council et al. v. Rodgers et al.*) to restore and maintain fish in “good condition” below Friant Dam, including naturally-reproducing and self-sustaining populations of salmon and other fish. In addition, the parties to the Settlement agreed to reduce or avoid adverse water supply impacts to the Friant Contractors that could result from the implementation of interim and Restoration Flows. The Settlement was later authorized by Congress under the San Joaquin River Restoration Settlement Act (Settlement Act), Public Law No. 111-11, § 10001 et seq., 123 Stat. 991, 1349 (2009), and the SJRRP was established to implement the Settlement.

Under the Settlement, full Restoration Flows were required to commence no later than January 1, 2014. The Settlement Act authorizes and directs Reclamation to modify Friant Dam operations to provide Restoration Flows in accordance with the hydrographs in Exhibit B of the Settlement (“Base Flows” for six water year types), plus releases of up to an additional ten percent (“Buffer Flows”), and any additional water acquired from willing sellers. (Settlement, Paragraph 13(a).) Exhibit B allows considerable flexibility for distribution of Base Flow releases so long as the total volume of Base Flows are not changed within the provided ranges (Spring and Fall Periods). Under Paragraph 13(g), Restoration Flows will be measured at a minimum of six locations between Friant Dam and the confluence of the Merced River. (Settlement, p. 14.) The Settlement provides for the selection of a Restoration Administrator (RA) and the creation of a Technical Advisory Committee (TAC) to assist in implementation. Consistent with Exhibit B, the RA makes recommendations to Reclamation on how the hydrographs are implemented. (Settlement, p. 18.)

The Restoration Flows in Exhibit B, designed to keep fish “in good condition” in the San Joaquin River, include releases from Friant Dam to accommodate water right claims between Friant Dam and Gravelly Ford as well as assumed diversions and seepage losses downstream of Gravelly Ford. Paragraph 13(c) provides that if downstream diversions or seepage losses increase beyond the assumptions in Exhibit B, Reclamation shall release water from Friant Dam such that the volume and timing of Restoration Flows are not impaired; seepage losses downstream of Gravelly Ford that exceed assumptions shall not

increase delivery reductions to Friant Contractors, however. To address unexpected seepage losses the Settlement directs Reclamation to, first, use any available, unstorable water not contracted for by the Friant Contractors and next, use water acquired from willing sellers, including any of that water that has been stored or carried over, until it has been exhausted. Settlement paragraph 13(d) provides:

[T]he Parties acknowledge that flood control is a primary authorized purpose of Friant Dam, that flood flows may accomplish some or all of the Restoration Flow purposes to the extent consistent with the hydrographs in Exhibit B and the guidelines (developed pursuant to Paragraph 13(j)), and further acknowledge that there may be times when flows called for in the hydrographs in Exhibit B may be exceeded as a result of operation of Friant Dam for flood control purposes. Nothing in this Settlement shall be construed to limit, affect, or interfere with [Reclamation's] ability to carry out such flood control operations.

In addition, the 2020 Restoration Flows Guidelines, Version 2.0 provides:

In the event that Reclamation determines that it is necessary to release water in excess of the Restoration Flow Schedule for the purposes of flood management, the daily quantities of flow required to meet the Restoration Flow hydrograph shall equal the daily volumes of flow provided in the most recent and adopted Restoration Flow Schedule.

Condition 4 of the 2013 Order incorporates the hydrographs contained in Exhibit B and the measurement provisions under paragraph 13(g). Annual Restoration Flow allocations specified in Exhibit B range from 187.5 thousand af in critical-high years to 672.3 thousand af in wet years. The Restoration Flows articulated in Exhibit B include water for riparian claims in Reach 1 under "holding contracts." No Restoration Flows are allocated in critical-low years; releases in critical-low years are for "holding contracts" only. From 2016 to 2020, actual annual releases of Restoration Flows to the San Joaquin River have ranged from approximately 79,000 af to 165,000 af.⁴ Reclamation has filed, and the State Water Board has approved, temporary change petitions to add points of rediversion at PID and BCID for Restoration Flows in 2016, 2017, 2018, 2019, and 2020. Reported amounts of Restoration Flows rediverted at PID and BCID in those years were 833 af, 6,710 af, 37,339 af, 8,492 af, and 22,653 af, respectively, for a total of approximately 76,000 af.

4.2. Channel and Structural Improvements

To fully achieve the Restoration Goal, the Settlement also calls for a combination of channel and structural modifications along the San Joaquin River below Friant Dam that Reclamation shall diligently pursue, in consultation with the RA and other federal, State and local agencies, provided that funds are appropriated by Congress or available from non-federal sources for that purpose. (Settlement, Paragraph 9.) Necessary improvements are articulated in Paragraph 11 of the Settlement, with Phase 1 improvements designated as the highest priority to be completed by no later than December 31, 2013. These include

completion of Reach 2B-Mendota Pool 4,500 cfs bypass channel, modifications of Sand Slough Control Structure and San Joaquin River headgate for routing 500-4,500 cfs to support fish passage, screening of Arroyo Canal, construction of a fish ladder at Sack Dam, modification of structures in the East Side and Mariposa Bypasses for fish passage, construction of low-flow channel in East Side and Mariposa Bypasses, if necessary, steps to enable deployment of fish barriers at Salt and Mud Sloughs, and Reach 2B channel capacity increase to 4,500 cfs with floodplain and riparian habitat. (*Id.*, Exhibit C.)

As early as 2012, parties to the Settlement acknowledged that some actions, such as the highest priority channel and structural improvement projects were unavoidably behind schedule. A Third-Party Working Draft Framework for Implementation, dated June 19, 2012 (2012 Framework) provided a revised schedule and budget to guide SJRRP activities. The 2012 Framework cites revenue from a variety of federal and state sources including the San Joaquin River Restoration Fund, including revenue from Class 1 and Class 2 water sales, while recognizing that “it is likely that the full Restoration Flows would not be released into the San Joaquin River for some time.” (*Id.*) Accordingly, during years when channel capacity constraints or lack of Phase 1 improvements limit the full release of Restoration Flows, the RA makes recommendations in order to determine the quantity of “Unreleased Restoration Flows” consistent with Paragraph 13(i) of the Settlement and section 10009(b)(1)(C) of PL 111-11. Reclamation, in consultation with the RA, banks, stores, exchanges, transfers or sells Unreleased Restoration Flows, with proceeds of those actions deposited into the San Joaquin River Restoration Fund.

The 2012 Framework was subsequently updated in the Revised Framework for Implementation, dated July 2015 (2015 Revised Framework) that established five-year visions to provide “clear, realistic, and accomplishable steps towards meeting the Settlement Goals, and achievable schedules based upon realistic Federal and State of California appropriation levels.” (2015 Revised Framework, ES-1.) The 2015 Revised Framework prioritized projects for 1,300 cfs capacity in all reaches of the San Joaquin River within the SJRRP area plus Friant-Kern Capacity Restoration during the 2015-2019 period. (*Id.*, ES-2.) For the 2020-2024 period, projects included financial assistance for groundwater banks, Reach 2B, Arroyo Canal and Sack Dam, Reach 4B Land Acquisition, and Seepage and Levee Projects to allow for Restoration Flows up to 2,500 cfs. The 2025-2029 period envisioned completion of Phase 1 Projects, including Seepage and Levee Projects to allow for the full amount of Restoration Flows (4,500 cfs), Chowchilla Bifurcation Structure Modifications, Salt and Mud Slough and Reach 4B Projects. The San Joaquin River Restoration Fund anticipated receiving contributions from the sales of water from Unreleased Restoration Flows and the Recovered Water Account, as well as Friant Division surcharge collections.

More recently, a Funding Constrained Framework for Implementation (2018 Funding Constrained Framework) “assesses the actions that can be accomplished to achieve as much as possible” the Settlement Goals along with necessary recovery of conveyance capacity in the Friant-Kern Canal lost due to subsidence caused by overdrafting the underlying groundwater aquifer (Friant Division Improvements). Stage 1 of the 2018

Funding Constrained Framework for the SJRRP consists of a number of major construction activities, including Seepage and Levee Projects providing channel capacity up to 2,500 cfs, projects previously identified as Phase 1 improvements in the Settlement (Mendota Pool Bypass, Mendota Pool Fish Screen, part or all of the Reach 2B Levees, and Modifications to the San Joaquin River side of the Chowchilla Bifurcation Structure) and Friant Division Improvements.

Notwithstanding these significant setbacks and constraints, the SJRRP has re-introduced juvenile spring-run Chinook salmon to the San Joaquin River since 2015 and currently releases upwards of 250,000 fish annually. Smaller numbers of year-old fish, known as yearlings – juveniles that waited a year before migrating out to the ocean and would be found in natural populations – as well as adult fish are being released for experimental purposes. The SJRRP website reports that for a second year in a row (only the second year in over 65 years), spring-run Chinook salmon have returned from the ocean to spawn in the river.

The Settlement itself acknowledges that achieving all of the Restoration and Water Management Goals by December 31, 2025 would require a suite of actions including channel and structural improvements, the anticipated release of Restoration Flows as envisioned in Exhibit B, as well as significant funding, planning, and implementation steps. (Settlement, Paragraph 5.) These steps include providing both the benefits to fish passage and habitat expected from improved flows throughout the SJRRP area and the benefits of actions to avoid or limit water supply impacts to Friant Division Contractors, including the redirection of Restoration Flows that is the subject of the Change Petitions. As actions and projects envisioned in the Settlement continue to be deferred, as their costs continue to escalate, and as funding continues to be constrained, it appears that the Settlement Goals will likely not be achieved by the end of 2025. The Settlement provides an explicit mechanism to request increases, decreases, or material change in the quantity or timing of the Restoration Flows during the first six months of 2026, taking advantage of the court's retained jurisdiction. (Settlement, Paragraph 20.)

5.0 PROCEDURE

On February 8, 2021, the Division posted public notice of the Change Petitions on the Division's website and sent notice through the State Water Board's LYRIS e-mail notification system. On the same day, Reclamation provided notice of the Change Petitions via publication in *The Fresno Bee* and mailed the notice to interested parties as required. The comment deadline was March 10, 2021. On April 6, 2021, Reclamation consented to April 30, 2021 for a decision on the Change Petitions.

The State Water Board received a letter from the Natural Resources Defense Council (NRDC) and the Bay Institute (TBI) objecting to the Change Petitions on February 12, 2021. Friant Water Authority (FWA) submitted comments March 10, 2021. Reclamation responded to NRDC's and TBI's letter on March 12, 2021. The State Water Board granted requests from Westlands Water District (Westlands) and the San Joaquin River Exchange

Contractors Water Authority (Exchange Contractors) for additional time to submit comments. The State Water Board received comments from Westlands on March 17, 2021, and from the Exchange Contractors on March 18, 2021. NRDC and TBI provided responses to Reclamation's March 12, 2021 response, and FWA submitted additional comments on March 31, 2021.

6.0 COMMENTS

6.1. NRDC and TBI

In their joint comment letter, NRDC and TBI, both signatories to the Settlement, submitted objections to the Change Petitions and requested two clarifications to the 2013 Order.

NRDC and TBI's objections relate to implementation of Restoration Flows during flood operations. NRDC and TBI cite the final feasibility report for the Friant-Kern Canal Middle Reach Capacity Correction Project, which asserts that, during flood operation at Friant Dam, reaches of the San Joaquin River below Sack Dam are at risk of drying up completely because of authorized diversions at the Chowchilla Bypass and at Mendota Pool. NRDC and TBI assert that the claimed risk is based on Reclamation's misinterpretation of section 10004 of the Settlement Act under which the SJRRP shall not result in a reduction of allocations to avoid reductions to other CVP contractors. According to NRDC and TBI, the alleged misinterpretation of federal statute improperly reduced the amount of Restoration Flows that could have been released in wet years 2011, 2017, and 2019. NRDC and TBI argue that this is inconsistent with Reclamation's obligations under the Settlement and the 2013 Order, in addition to section 5937 of the Fish and Game Code and the public trust doctrine. NRDC and TBI request that the Board revise Condition 4 of the 2013 Order to require Reclamation to maintain a connected river throughout the SJRRP Area during flood operations, ensure that the downstream flow thresholds in the Settlement are achieved below Sack Dam during flood operations, and not require the transfer or exchange of Restoration Flows to offset any perceived water supply impacts during flood operations.

NRDC and TBI also object to alleged unlawful diversions of Restoration Flows in the area around Sack Dam. To prevent these alleged unlawful diversions, NRDC and TBI request that the Board revise Condition 13 of the 2013 Order by requiring Reclamation to coordinate its operations with the Henry Miller Reclamation District (HMRD), and to report to the Board on a quarterly basis the amount of water that Reclamation instructed should be released from Sack Dam each day versus the amount of water that was actually released from Sack Dam.

NRDC and TBI provided additional comments on March 26, 2021 in response to Reclamation's response.

6.2. Friant Water Authority

FWA submitted comments reiterating support for the Settlement and FWA's commitment to its successful implementation.

[I]f Restoration Flows are being impacted, these impacts must be addressed as they affect the Settlement and all Friant Division long-term contractors. We share many of the concerns NRDC raises in its Protest related to the need to appropriately protect the Restoration Flows so that they can achieve the fish and wildlife benefits envisioned by the Settlement. It is particularly important that the Restoration Flows occurring concurrently with flood releases at Friant Dam receive the same level of protection as all other Restoration Flows.

FWA states that during flood operations, the volume of flows necessary to achieve the downstream flow thresholds in Exhibit B of the Settlement must be treated as if they are Restoration Flows for the purposes of instream protection and should be unavailable for downstream diversion except for the purposes of recapture. (FWA Letter, pp. 1-2.)

FWA also requests that the State Water Board remove Condition 4 in its temporary transfer order that limits transfer water to storage release from Millerton Reservoir. This condition was added based on how Reclamation phrased a previous petition, and the 2013 Order does not impose this same constraint.

On March 31, 2021, FWA submitted an additional comment in response to NRDC and Reclamation correspondence, emphasizing the Water Management Goal of the Settlement. "[T]he idea that somehow Friant Division contractors must be potentially shorted to distinguish (and protect) Restoration Flows from Flood Flows is inconsistent with both the Water Management Goal and the specific terms of the Settlement."

6.3. Reclamation

In response to NRDC and TBI's comments, Reclamation argues that the requested revisions to the 2013 Order are not necessary to carry out the temporary change proposed in the Change Petitions, and thus are improper under Water Code section 1727.

Substantively, on the issue of flood operations, Reclamation states that flood releases to the river from Millerton Reservoir only occur when all consumptive use demands are being met through the canals and the storage is encroaching into the reservoir flood control pool. Thus, none of the river releases during flood management could have been consumptively used or stored pursuant to Reclamation's water rights. If Reclamation makes flood control releases to the river when operating under the 2013 Order, those releases must necessarily be smaller than flood control releases made prior to the changes in the 2013 Order, because the releases now include a combination of flood control releases and Restoration Flow releases. Reclamation states that "the Restoration Flow limitation during Friant Dam flood management releases is a constraint described in the San Joaquin River Restoration Program Programmatic Environmental Impact Statement/Report (PEIS/R) and

associated Record Of Decision (ROD) to avoid adverse effects to flood control operations and assure Restoration Flows would not contribute to flood flows above project design capacities. From the PEIS/R ROD project description (ROD Attachment A, page 9), “[i]f flood control releases from Friant exceed the concurrent scheduled Interim and Restoration flows, no additional releases above those required for flood control would be made for SJRRP purposes.” Reclamation states that it is investigating options and authorities to allow routing of a portion of those flows through the SJRRP Area and is prepared to take reasonable and necessary steps to resolve this issue.

Regarding the request to modify Condition 13, Reclamation is agreeable to informing HMRD how much water must be released from Sack Dam. Reclamation states that Condition 13 of the 2013 Order is coordinated through the Mendota Pool Watermaster, a representative to the Exchange Contractors. Both the San Luis Canal Company (SLCC), one of the four Exchange Contractor entities, and HMRD, the canal operator, have elected to have the Mendota Pool Watermaster coordinate on their behalf. Reclamation monitors and reports Restoration Flows at several locations, including downstream from Sack Dam, in accordance with Condition 5 of the 2013 Order. The combination of reporting under Condition 5 and 13 should address NRDC and TBI’s concern.

Reclamation disagrees with NRDC and TBI’s request for a requirement that Reclamation report improper diversions because “such a requirement relies on the expertise and authority of the State Water Board.”

6.4. Exchange Contractors

The Exchange Contractors object to NRDC and TBI’s comments as improper and untimely for similar reasons stated by Reclamation.

The Exchange Contractors state that all parties are exercising good faith in carrying out their duties and responsibilities in this dynamic and complex area. The letter goes on to explain that water flows are still the subject of investigation and adaptation, and while there may have been mistakes, no one has intentionally diverted flows improperly. According to the Exchange Contractors, the Exhibit B hydrographs do not provide guidance on real time operations, and operating parties should be given time and space to understand and adapt to changing conditions under the Settlement. The Exchange Contractors list actions being taken in response to operational challenges, including more engagement between the RA and Mendota Pool Watermaster, and addressing inaccurate gages.

The Exchange Contractors explain that amending the 2013 Order to add the HMRD is not necessary because information provided to the SLCC is already available to HMRD:

[T]he [SLCC] is already on the notification list as being one of the four agencies that comprise the membership of the Exchange Contractors. Information provided to the SLCC from the Restoration Program becomes instantly available to HMRD because of the common identity of the key

management for both agencies. There is no lack of communication or transfer of knowledge between SLCC management and HMRD management.

The Exchange Contractors state that Reclamation should not be required to report illegal diversions, because Reclamation is not a regulatory agency and does not have the expertise to determine whether a diversion is illegal.

The Exchange Contractors take issue with NRDC and TBI's discussion of Settlement Act section 10004(f) and emphasize that a central tenant of the Settlement Act is that third parties will not be injured as a result of the implementation of the SJRRP.

6.5. Westlands

Westlands also states that this temporary petition is not the appropriate forum to resolve the issues raised by NRDC and TBI, and instead suggest that NRDC and TBI raise these concerns with Reclamation, the agency responsible for implementation of the SJRRP.

Westlands argues that the Exchange Contractors are entitled to divert flood flows under their pre-1914 rights. Westlands also argues for the assurances that the SJRRP would not harm third parties, including non-San Joaquin parties. It is unclear if Westlands is claiming a direct benefit from flood flows or an indirect benefit when the Exchange Contractors take their water from the San Joaquin River, thereby easing demand on the San Luis Delta Canal for the benefit of third party contractors not located on the San Joaquin River.

7.0 RESPONSE TO COMMENTS

The nature of NRDC and TBI's comments as they relate to potential changes in the 2013 Order fall outside of the scope of review before the State Water Board in its relatively limited determination of whether to grant the Change Petitions and approve a temporary addition of two points of rediversion (PORD) to effectuate the goals of the Settlement. In addition, the requests made by NRDC and TBI would not resolve the underlying issues raised by their comments or are not necessary.

Water Code section 1727, subdivision (d) provides:

In reviewing a petition for a temporary change, the board shall not modify any term or condition of the petitioner's permit or license, including those terms that protect other legal users of water, fish, wildlife, and other instream beneficial uses, except as necessary to carry out the temporary change in accordance with this article.

Subdivision (e) further provides:

[T]he board shall not deny, or place conditions on, a temporary change to avoid or mitigate impacts that are not caused by the temporary change. Neither the Department of Fish and Wildlife, nor any other state agency that

comments on the proposed temporary change, shall propose conditions to mitigate effects on fish, wildlife, or other instream beneficial uses that are not caused by the proposed temporary change. This subdivision does not limit the board, the Department of Fish and Wildlife, or any other state agency, in proceedings pursuant to any provision of law other than this article.

The requests also misconstrue the force and effect of the 2013 Order. The State Water Board has not held a hearing or made any determination of what Fish and Game Code section 5937 or the public trust requires on this reach of the San Joaquin River. The 2013 Order simply confirms and allows changes to Reclamation's water right permits and license to conform to what is essentially a voluntary agreement among certain parties. Voluntary agreements have been described by many, including the State Water Board, as having the potential to inform and expedite implementation of water quality objectives and provide durable solutions in the Delta watershed. This stretch of river was excluded from the most recent update to the Bay-Delta Plan, although the State Water Board reserved its authority to promulgate water quality objectives in the future. (Bay-Delta Plan, p. 57 [Recommendations to Other Agencies].)

The State Water Board continues to support voluntary agreements in the San Joaquin River and elsewhere that help inform and expedite implementation for the benefit of fish and wildlife beneficial uses. The SJRRP provides an opportunity to demonstrate a successful voluntary agreement, and all parties, including those not signatories to the Settlement but with an interest in the San Joaquin River or the Delta more broadly, share an interest in its successful implementation.

If Reclamation needs to conduct flood control operations during the one-year term of this transfer, the conditions for rediversion at PID's and BCID's points of diversion are relevant to the Change Petitions. Reclamation allocates water supplies available under its license and permits, including Restoration Flows, with a preliminary projection in January, a formal estimate in February, and monthly calculations throughout the spring and summer of how much runoff is expected into Millerton Reservoir. The Restoration Flow allocation as of February 19, 2021 is 170,732 af.⁵

There is no restriction in Reclamation's water rights that prevents Restoration Flows from being released concurrently with flood releases. As described in D-935, water released from storage in Millerton Reservoir for flood management remains part of Reclamation's appropriations pursuant to License 1986 and Permits 11885, 11886, and 11887. Subject to safety protocols and the structural improvement constraints in the Settlement, the 2020 Restoration Flows Guidelines, Version 2.0 provide:

In the event that Reclamation determines that it is necessary to release water in excess of the Restoration Flow Schedule for the purposes of flood management, the daily quantities of flow required to meet the Restoration Flow hydrograph shall equal the daily volumes of flow provided in the most recent and adopted Restoration Flow Schedule.

Settlement provisions provide that Restoration Flows may occur concurrently with flood operations, subject to safety standards. Reclamation also comments that the ROD ensures that Restoration Flows would not contribute to flood flows above project design capacities to avoid adverse flooding effects; however, this does not mean that Restoration Flows should never be released during flood control operations.

The State Water Board agrees with FWA's request to omit condition 4 from the transfer order. Previous orders stated that "[t]he totality of the transferred water will be limited to storage releases from Millerton Reservoir for the entire authorized transfer period." The Order also eliminates the prior text in condition 1: "The transfer shall not commence until seven (7) days after Friant Dam operations have ceased uncontrolled excess flows and flood control release operations at Friant Dam, or date of Order issuance, whichever is later, and shall immediately cease anytime such conditions commence." Instead, the Order provides that water subject to the transfer includes Restoration Flows from (a) water released from Millerton Reservoir that was previously collected to storage and that subsequently remains under Reclamation's dominion and control, and (b) water taken, and subsequently remaining, under Reclamation's dominion and control through the exercise of direct diversion rights at Friant Dam but allowed to pass into the river channel in lieu of being conveyed into and through canals.

NRDC and TBI's second objection and request relate to preventing alleged unlawful diversions of Restoration Flows in the area around Sack Dam. NRDC and TBI request that the Board revise Condition 13 of the 2013 Order to require Reclamation to coordinate its operations with the HMRD, and to report to the Board on a quarterly basis the amount of water that Reclamation instructed should be released from Sack Dam each day versus the amount of water that was actually released from Sack Dam.

Condition 13 of the 2013 Order already requires daily coordination with SLCC regarding the amount of Restoration Flows that must be released below Sack Dam. Reclamation is agreeable to informing HMRD how much water must be released from Sack Dam, but, as acknowledged by the Exchange Contractors, "[i]nformation provided to the SLCC from the Restoration Program becomes instantly available to [HMRD] because of the common identity of the key management for both agencies." Therefore, Condition 13 is already adequate to inform and coordinate Restoration Flows with relevant parties, including HMRD, and amending the 2013 Order is unnecessary.

Both Reclamation and the Exchange Contractors object to NRDC and TBI's proposed condition that Reclamation report allegedly unlawful diversions, noting that determining that a diversion is unlawful depends upon the expertise and authority of the State Water Board. While this may be true, Reclamation has broad discretion and authority over how it manages its contracts, and expertise on how its obligations under those contracts may be impacted by others. The State Water Board relies on Reclamation for proper reporting and tracking of diversion and use of water available under the subject license and permits. This information is critical to enable the State Water Board to administer the state's water right system, protect water rights, enforce both voluntary and regulatory flow requirements, and generally ensure the protection of instream flows provided under Water Code section 1707.

This Order includes additional accounting and reporting provisions described in more detail below that build on previous efforts to ensure the protection of Restoration Flows and Water Management Goals of the Settlement.

In conclusion, NRDC and TBI's requests to amend the 2013 Order are outside of the scope of review for this temporary transfer, would not resolve the underlying concerns, and are not necessary. Accordingly, the State Water Board declines the requests at this time.

NRDC and TBI's comment letter also articulates a general concern that current implementation of the Settlement is not achieving the goals of the Settlement Act or Fish and Game Code section 5937. They point out that Restoration Flows are significantly restricted below Sack Dam (300 cfs, whereas the Settlement anticipates a maximum of 3,000 cfs in wet years) due to seepage impacts that were intended to be resolved during the period of interim flow releases. As noted in the review of the sequential Funding Frameworks in Section 4.0 of this Order, it appears unlikely that the Settlement Goals will be achieved by the end of 2025. Therefore, the State Water Board encourages Parties to the Settlement to begin consideration of the processes available under Paragraph 26 of the Settlement to informally meet and confer or provide a Statement of Position to the other Settlement Parties to formally commence a meet and confer process. (Settlement, Paragraph 26.) Given that Paragraph 20 of the Settlement provides an opportunity for parties to request increases, decreases, or material changes in the quantity or timing of the Restoration Flows during the first six months of 2026, it would be beneficial to begin formally resolving issues around progress on channel and structural improvements, funding, and interpretations on implementation of flows prior to the opportunity for proposing changes to the flows.

In Westlands' comment letter, it argues that under principles of "last in, first out," flood flows that are passed through Millerton Reservoir have not been appropriated by Reclamation under its license and permits. Westlands then proceeds to discuss Settlement Act section 10004 protections for third parties, but it is not clear on what parties' behalf it is making this argument or which water rights may be injured.

Section 10004 (f) provides:

Except as otherwise provided in this section, the implementation of the Settlement and the reintroduction of California Central Valley Spring Run Chinook salmon pursuant to the Settlement and section 10011, shall not result in the involuntary reduction in contract water allocations to Central Valley Project long-term contractors, other than Friant Division long term contractors.

If water is not appropriated by Reclamation under its water rights, Reclamation would not be authorized to provide this water to any CVP contractor. Control and use of peak flood flows is becoming increasingly important as various groundwater basins develop and implement groundwater sustainability plans pursuant to the Sustainable Groundwater Management Act. (Wat. Code, § 10720 et seq.) Capturing and storing surface water

generally requires an appropriative water right. Parties can obtain new water rights or change existing water rights to authorize groundwater recharge projects, subject to appropriate conditions. The State Water Board has developed a streamlined permitting process for diversions of water from high flow events to underground storage. Other rights may exist in this area and/or diversions may be occurring without authorization.

In most instances, Reclamation does maintain dominion and control over the water that it releases to make flood space available, and has considerable discretion on how it chooses to manage it once Friant demands and Restoration Flows are met. The Settlement Act indicates an intent to implement the Settlement without impairing any Third Party's existing contractual rights, not an intent to perpetuate the status quo for water deliveries at the cost of preventing implementation of Settlement releases, even where those parties' contracts contain the flexibility to allow the releases. (2012 Order, pp. 9-10.)

Information developed pursuant to conditions described in sections 7.0 and 11.0 will help clarify issues related to flood operations at Friant Dam, and the exercise of Reclamation's water rights and operations at both the Mendota Pool and Sack Dam.

8.0 THE CHANGE INVOLVES A TRANSFER OR EXCHANGE OF WATER OR WATER RIGHTS

Although the transfer does not reduce water deliveries to CVP contractors, it expands public trust resources by dedicating water to instream use, and thus amounts to a transfer to the public. As such, Reclamation has included new users of the water as follows: 1) the public, through the protection and enhancement of instream beneficial uses held in the public trust, and 2) the California Department of Fish and Wildlife (CDFW), whose mission is to manage California's diverse fish, wildlife, and plant resources, and habitats upon which they depend, for their ecological values and for their use and enjoyment by the public.

The additional points of rediversion at PID and BCID will provide water for instream beneficial uses in the San Joaquin River downstream of the confluence with the Merced River and enable flows to be captured and recirculated to CVP contractors at times when there is limited or no available capacity at the Delta Pumps. The instream flows would remain protected and removed from use in the downstream water supply. Regardless of whether the transfer/exchange is characterized as a transfer to instream use, or a transfer back to Reclamation from instream uses, this operation can be properly accommodated under Water Code sections 1725 and 1707.

9.0 THE CHANGE INVOLVES WATER THAT WOULD HAVE BEEN CONSUMPTIVELY USED OR STORED

When reviewing a petition for temporary change, Water Code section 1725 provides that a permittee may temporarily change the point of diversion, place of use, or purpose of use

through a “transfer or exchange of water or water rights if the transfer would only involve the amount of water that would have been consumptively used or stored” by permittee or licensee in the absence of the proposed temporary change. (Wat. Code, § 1725; see also § 1726 [proposed change must be submitted to Board]; §1011 [conserved water may be transferred].) Water Code section 1725 defines “consumptively used” to mean “the amount of water which has been consumed through use by evapotranspiration, has percolated underground, or has been otherwise removed from use in the downstream water supply as a result of direct diversion.”

Restoration Flows from Millerton Reservoir released or bypassed in accordance with the terms and conditions of the 2013 Order approving the SJRRP’s dedication of Restoration Flows would have either remained in storage or have been directly diverted at Friant Dam for delivery and consumptive use by the Friant Contractors, or used in the CVP service area. Further, in the absence of this temporary change, the Restoration Flows, as authorized in the 2013 Order, would continue to remain under the dominion and control of Reclamation as currently authorized under the subject permits and license. As described in the Board’s response to FWA’s comments, Condition 1 has been modified to reflect this point. Under D-935, water released from storage in Millerton Reservoir for the purpose of flood management activities remains part of Reclamation’s appropriations pursuant to License 1986 and Permits 11885, 11886, and 11887. The Settlement Act specifies which hydrograph in Exhibit B applies according to water year type and the required flows increase in wetter years. If previously stored water is being released to make room in Millerton Reservoir for flood control, the portion of that release that is called for under the Settlement should be tracked, and if possible recaptured downstream for the benefit of Friant contractors. Once previously stored water has been vacated and conditions are such that inflow must pass Friant Dam and the maximum direct diversion of 6,500 cfs is occurring in the Madera and Friant-Kern Canals, deliveries to the canals would be reduced by the amount of Restoration Flows called for, and that amount released below Friant Dam and recaptured downstream for the benefit of Friant contractors to the extent possible.

Reclamation included Water Code section 1707 to its Change Petitions to make clear that the rediversion pursuant to its proposed section 1725 transfer operates in conjunction with and for the purpose of facilitating the dedication of instream flows. The current Change Petitions, by virtue of being filed under sections 1707 and 1725 function as a modification of the 2013 Order. The water subject to the Change Petitions is not water that would be available for lawful use in the downstream water supply.

10.0 NO INJURY TO OTHER LEGAL USERS OF THE WATER

Before approving a petition for temporary change, the State Water Board must find that the temporary change 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).) As explained above, in the absence of the Change Petitions, Reclamation would

continue to retain dominion and control of all instream flows downstream of the PID and BCID facilities for consumptive use as currently authorized under the subject permits and license and the 2013 Order. The instream flows would remain protected and removed from use in the downstream water supply. Water released from storage is not available to downstream users. (See e.g. *North Kern Water Storage Dist. v. Kern Delta Water Dist.* (2007) 147 Cal.App.4th 555, 570 [When the stored water is released for use, it is not part of the river's natural flow and rediversion of this water does not count toward the appropriator's current allocation of river water]; see *State Water Resources Control Bd. Cases* (2006) 136 Cal.App.4th 674, 737-745 [a riparian or appropriator has no legally protected interest in other appropriators' stored water or in the continuation of releases of stored water].) Similarly, water allowed to pass into the river channel in lieu of being conveyed into and through canals through the exercise of direct diversion rights at Friant Dam would remain protected and removed from use in the downstream water supply.

While likely not an issue this year, injury during flood management activities at Friant Dam would not occur if Restoration Flows were released concurrent with flood releases. The Settlement and the 2013 Order clearly state that the Settlement cannot interfere with the proper exercise of the Exchange Contractor's water rights. Generally, Exchange Contractors' water is delivered from the Sacramento Delta through the Mendota Pool for delivery to Sack Dam. Historically, the only water in Mendota Pool was exchange water provided from the Sacramento-Delta, so it is understandable that close coordination is required if Exchange Contract deliveries are being provided at Mendota Pool at the same time Restoration Flows are being released from Friant Dam to the same location. During flood releases, it may be possible that Reclamation elects to not deliver exchange water from the Delta and instead Exchange Contractors divert water from excess flow from the San Joaquin. This is at the discretion of Reclamation, to the extent consistent with the Purchase and Exchange Contracts and Reclamation's permits and license; but that decision need not necessarily be made at the expense of the Settlement. Restoration Flows can occur concurrently and should be available for rediversion downstream by the Friant Contractors to the extent possible.

The 2013 Order includes a condition specifically stating that the approved change in no way modifies the obligations and rights under the San Joaquin River Exchange Contract and other contracts. The conditions of that Order remain in force and effect.

11.0 NO UNREASONABLE EFFECT ON 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).) Reclamation provided CDFW and the Central Valley Regional Water Quality Control Board (Regional Water Board) with copies of the petitions in accordance with California Code of Regulations, title 23, section 794, subdivision (c). CDFW and the Regional Water Board did not provide any information

regarding potential effects of the proposed changes on water quality, fish, wildlife, and other instream beneficial uses.

The purpose of the SJRRP is to protect instream beneficial uses in the San Joaquin River. Recapture pursuant to the Change Petitions would occur only at screened facilities. The transfer will be subject to provisions of Reclamation's License 1986 and Permits 11885, 11886, and 11887, the 2013 Order, and existing BO's issued by the USFWS and the NMFS under the federal ESA. Consistent with Condition 19 in the 2013 Order, and Condition 5 of the April 20, 2020 approving PID and BCID as temporary points of rediversion (2020 Transfer), rediversion of SJRRP flows are subject to terms and conditions of Water Rights Decision 1641 (D-1641) that require achieving water quality and flow objectives in Tables 1, 2, and 3 (p. 181 – 187) of D-1641. In calendar year 2020, non-compliance with D-1641 southern Delta salinity objectives (Table 2) and San Joaquin River flow objectives (Table 3) occurred in February, April, May, August, and October. Non-compliance with D-1641 resulted in salinity conditions that exceeded the water quality objective for approximately two weeks (April 30 – May 6; August 25 – 31)⁶ and a total flow deficit on the San Joaquin River at Vernalis of approximately 100,000 acre-feet that occurred in three time periods (February, April-May pulse flow period, October).⁷ SJRRP flows should not be rediverted or recaptured under this transfer order when terms and conditions of D-1641 are not being met or if real-time monitoring or forecast information suggests that the objectives may not be met (see Condition 11.d p. 149, D-1641). Condition 5 of this order has been further clarified to ensure rediversion of SJRRP flows by PID and BCID will not occur when D-1641 terms and conditions are not being achieved or available monitoring data or forecasts show that terms and conditions will not be achieved.

12.0 COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

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

The 2013 Order approved instream flow dedication for the SJRRP under Water Code section 1707. Terms and conditions addressing the availability, modification, and recapture of instream flows for implementation of the SJRRP are currently contained in the subject permits and license. The proposed action involves the addition of two points of rediversion at PID and BCID to the ongoing implementation of the SJRRP pursuant to the 2013 Order and the subject permits and license.

Reclamation has prepared a Final Environmental Assessment (FEA), dated July 2016, covering the recapture of Restoration Flows at PID and/or BCID from March 23, 2016 through March 22, 2017 (*One Year Recapture of San Joaquin River Restoration Flows at Patterson Irrigation District and/or Banta-Carbona Irrigation District*) and issued a Finding of No Significant Impact (FONSI) (Number 16-03-SJRRP) on July 29, 2016. The FEA

incorporates the affected environment and the environmental analysis in the SJRRP Programmatic Environmental Impact Statement/Environmental Impact Report (PEIS/R) finalized in July 2012 and for which a corresponding Record of Decision was issued on September 28, 2012. The recapture of Restoration Flows at existing facilities on the lower San Joaquin River is included among actions analyzed at the program-level in the PEIS/R.

The recirculation of recaptured water at existing facilities back to Friant Contractors, using CVP, Department of Water Resources, and private facilities, was covered in the Recirculation of Recaptured Water Year 2013-2017 SJRRP Flows Environmental Assessment (Recirculation EA) which, along with its corresponding Recirculation FONSI, is dated April 2013. Reclamation has determined that at this time none of the conditions underlying the Recirculation EA has changed, and therefore it intends to rely upon the existing Recirculation EA. In addition, Reclamation issued a new FONSI for recapture on February 27, 2018 for the Short-Term Recirculation of Recaptured SJRRP Restoration Flows as analyzed in the Recirculation EA. In February of 2020, Reclamation signed a FONSI to continue the recapture of San Joaquin River Restoration Flows at PID and BCID, as analyzed in the 2016 One Year Recapture of Restoration Flows at PID and/or BCID Environmental Assessment.

Reclamation is in the process of preparing the *Long-Term Recapture and Recirculation of SJRRP Restoration Flows Environmental Impact Statement/Environmental Impact Report (EIS/R)* for the SJRRP that will support the filing of permanent water right change petitions for the subject permitted and licensed applications under Water Code section 1701. Reclamation has indicated it expects to submit the EIS/R for public comment sometime in 2022.

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.) The State Water Board 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).) The State Water Board conducted an independent evaluation of impacts to public trust resources concurrent with the Water Code section 1707 and 1725 evaluations. The purpose of the SJRRP is to protect instream beneficial uses in the San Joaquin River. Facilitating rediversion further downstream will enable the restoration flows to better support the instream beneficial uses of the San Joaquin River by maintaining connectivity below Mendota Pool. Recapture would occur only at screened facilities. The transfer will be subject to provisions of Reclamation's License 1986 and Permits 11885, 11886, and 11887, and BO's issued by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) under the federal Endangered Species Act (ESA), compliance with the 2013 Order and D-1641.

13.0 WATER CODE SECTION 1707 FINDINGS

For the reasons already explained above, and further articulated in the 2013 Order, the proposed changes meet all of the requirements under Water Code section 1707, subdivision (b).

14.0 ACCOUNTING AND REPORTING

14.1. Accounting Methodology for Restoration Flows

Adequate accounting methods are needed to accurately track the volume of Restoration Flows from the release point at Friant Dam as they are conveyed downstream to each of the proposed points of redirection. The 2013 Order provides conditions describing required release amounts and related schedules (Condition 4); monitoring to track the protected instream flows (Condition 5); and documentation to be included with annual reports of water diversion that quantify storage and direct diversion at Millerton Reservoir, quantities bypassed or released at Friant Dam for instream use pursuant to Water Code 1707, and amounts of dedicated flows diverted downstream (Condition 20). While these conditions are generally being satisfied by Reclamation, there remains ambiguity in how Restoration Flows are accounted for from their release at Friant Dam downstream to the points of redirection identified in the 2013 Order and those identified in this Order.

Reclamation was previously required to submit a proposed accounting method for quantifying SJRRP flows from Friant Dam to all points of redirection, including at PID and BCID. In June 2020 USBR shared an accounting method in the form of a spreadsheet titled, "SJRRP Operations 06-16-2020" (Operations Spreadsheet) and supporting documentation "Restoration Flows Accounting method June 2020" (RF Accounting Method) that quantified SJRRP flows between Friant Dam and "Lower SJR Recapture." Following discussions between Reclamation staff and Board staff, the remaining questions of Board staff were addressed through an amended SJRRP Operations spreadsheet proposed by Board staff and provided to Reclamation in October 2020. Review of gages provided pursuant to Condition 10 of the 2020 Transfer is still ongoing, in part because provided gages do not match those noted in the Restoration Flow Guidelines, Version 2.0 Table E-1, and were not always found on publicly accessible databases. Quantification of uncontrolled excess flows is also still under review, although it is noted that Reclamation provided a definition of these flows in their January monthly report.

Inconsistencies continue to be observed between "Friant Releases" reported on the SJRRP Restoration Flows website and gauged Friant releases to the San Joaquin from Millerton Reservoir (CDEC USBR gauge MIL) less releases to Madera and Kern-Friant Canals (CDEC USBR gauges MI1 + MI2) reported in Compliance Report Tables 3-1 and 3-2. The Reclamation method for accounting for the amount of Restoration Flow available at PID was described in the submitted Operations Spreadsheet, and more detail was provided in the RF Accounting Method such that Reclamation's accounting method for Restoration Flow available for redirection is discernable. There are still ambiguities,

however, in part reflecting the operational challenges of reconciling daily data across various gages that each have varying amounts of measurement error and corrections following initial measurements. The result of these issues is uncertain estimations of Restoration Flow at each point of rediversion and potentially an inaccurate long-term Restoration Flow accounting budget.

Within the USBR Operations Spreadsheet, estimated Restoration Flow at any point in the San Joaquin River is not always limited to incoming Restoration Flow above that point, and the flow measured at the nearest upstream gage. There are days for which Restoration Flow calculated at one gage exceeds Restoration Flow calculated at the nearest upstream gage. For the purposes of calculating Restoration Flow available for rediversion below Washington Avenue, there remain two unreconciled ways of counting Restoration Flow (and neither is limited to calculated Restoration Flow above Sack Dam). One of the methods for calculating Restoration Flow below Washington Avenue relies on a “provisional loss” below Washington Avenue that exceeds the loss assumptions of Exhibit B. Exhibit B notes gains in Reach 4B and that overall, there is “likely a net gain in Reach 4 flow, assumed no gain for simplicity,” not a loss. While improvements from assumptions in Exhibit B are possible as the program is implemented and the river is better understood, the accounting method needs to reconcile these different accounts of Restoration Flow from Friant Dam to the points of rediversion, and, to maintain a mass balance of Restoration Flow into Friant to each point of rediversion.

The estimation of Restoration Flow available for rediversion also needs to be conditioned on compliance with each of the Order terms, and Restoration Flow must account for all diversions and rediversions. For example, after Restoration Flow has been recaptured at PID, it needs to be deducted from the ledger of Restoration Flow available for BCID.

This Order requires resolution of the accounting issues identified in the 2020 submitted accounting method, which can occur via continuation of the productive, collaborative, technical exchanges among Reclamation and Board staff.

An accounting methodology that describes and tracks the purpose and volume of releases from Friant Dam through the San Joaquin River to each point of rediversion was submitted, but further development is needed to resolve conservation of mass issues and demonstrate that the conditions of this temporary transfer order are being satisfied. Accordingly, Condition 8 is added to address the need for an accounting methodology.

14.2. Measurement Methodology for Diversion and Rediversion

The comments received on the Change Petitions brought to light ambiguities in how and when Reclamation exercises its water rights at Friant Dam, and when Friant Dam is serving as a point of diversion for other right holders such as the Exchange Contractors. Determining when Restoration Flows are released from Friant Dam, and when releases from Friant are for the purpose of other beneficial uses downstream of Friant Dam, including pursuant to the flood management releases described in D-935, are necessary for evaluating when flows are available for rediversion at PID and BCID. A proper

accounting of when and how Reclamation's License 1986 and Permits 11885, 11886, and 11887 are being exercised is also important context for evaluating the findings described in Sections 6.0 and 7.0 of this Order. Therefore, Condition 9 has been added to this order to ensure Reclamation and the State Water Board develop a common understanding of Reclamation's exercise of its license and permits.

14.3. Monthly Reporting During Transfer Period

Conditions of the prior approvals, most recently Condition 9 of the 2020 transfer order, required Reclamation to submit monthly reports describing the transfer of water until such time as the transfer had been completed. The report was to include the daily average rate of water rediverted and daily volume of water rediverted at PID and BCID facilities pursuant to the approval. Starting in July 2020, Reclamation submitted monthly reports for 2020 that included daily values, and starting in February 2021 included data pertaining to PID and BCID's other bases of right.

In addition, Reclamation was required to provide evidence documenting insufficient capacity or other constraints exist at the Delta Pumps prior to commencing any redirection at PID or BCID facilities. Reclamation did not provide any evidence documenting insufficient capacity at the Delta Pumps prior to commencing any redirection at PID or BCID facilities. Condition 9 of the 2020 Order also required descriptions of whether Conditions 1, 4, 5, 6, or 8 limited redirections; while related information was received, in no cases was it enough to determine whether any of these conditions limited redirection for any month, or, whether it was anticipated that any of these conditions would limit redirection in the next month. Although Reclamation submitted the monthly reporting of redirections at PID and BCID upon additional request, the monthly reporting was incomplete.

Thus, increased oversight continues to be warranted to ensure the availability of flows for redirection pursuant to this Order. Condition 10 ensures adequate reporting when implementing the changes approved by this Order.

15.0 ADDITIONAL PROPOSED TERMS

15.1. Net Delta Outflow Index

The Net Delta Outflow Index (NDOI) is a water balance equation used for implementation of certain D-1641 provisions. Net Delta outflow is determined using measured inflows of major rivers and streams, exports by the major water projects, and estimates of other water agencies' diversions, channel depletions, and precipitation. Without the proposed term, Restoration Flows measured at Vernalis would be included as inflow but not subtracted as export, even though it is subsequently rediverted at BCID. This would incorrectly increase the calculated Delta outflow. This can be resolved by subtracting BCID flows from the inflow part of the D-1641 equation. Accordingly, Condition 6 has been added to the Order to reflect the modification to the NDOI calculation for this transfer.

15.2. San Joaquin River Inflow to Export Ratio

D-1641, Table 3, footnote 18 limits the combined exports by the Banks and Jones Pumping Plants to the greater of 1500 cfs or the three-day running average San Joaquin River flow at Vernalis from April 15 to May 15, subject to minor variation in the start and end of the period approved through consultation with state and federal fish agencies to coincide with the spring pulse flow. Without modification, Restoration Flows measured at Vernalis would be included in the calculation of San Joaquin River inflow, even if rediverted at BCID. Therefore, Restoration Flows rediverted at BCID must be subtracted from San Joaquin River flow during the spring pulse flow period. Accordingly, Condition 6 also reflects the modification of the SJR inflow to combined export ratio noted above.

15.3. Clarification Regarding Points of Rediversion Authorization

In 2018, a previous and separate correspondence brought to light confusion regarding the scope of the 2013 Order authorizing new points of rediversion in Permits 11885, 11886, and 11887 and License 1986. Upon adoption of the 2013 Order, a column of new points of rediversion was added to Reclamation's permits and license that included, inter alia, Canal Intakes Off Mendota Dam, and the Jones and Banks Pumping Plants. Consistent with the 2013 Order, the added points of rediversion are authorized solely for the purpose of implementing the Settlement Agreement and recirculating Restoration Flows. A conditional footnote attaches to these points of rediversion that provides: "The points of rediversion are for: (a) water released from storage or (b) water previously diverted at Friant Dam that remains under the dominion and control of Reclamation from Friant Dam to the points of rediversion pursuant to Water Code section 1707." This Order includes a term that adds a minor amendment to this provision to ensure that there is no ambiguity on this point.

Clarification continues to be relevant, as Reclamation's annual reports continue to state an interpretation of the 2019 and 2020 transfer orders that the term does not limit rediversion activities that occur outside of the order.

16.0 STATE WATER BOARD'S DELEGATION OF AUTHORITY

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

17.0 CONCLUSIONS

The State Water Board has adequate information in its files to make the evaluation required by Water Code sections 1707 and 1727.

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

1. The proposed transfer involves only an amount of water that would have been consumptively used or stored in the absence of the temporary change.
2. The proposed temporary change will not increase the amount of water Reclamation is entitled to use.
3. The proposed temporary change will not injure any legal user of the water.
4. The proposed temporary change will not have an unreasonable effect upon fish, wildlife, or other instream beneficial uses.
5. The proposed temporary change otherwise meets the requirements of Division 2 of the Water Code.

ORDER

NOW, THEREFORE, IT IS ORDERED that the petitions filed for temporary change for the transfer/exchange of instream flow dedication of up to 76,069 af of water under License 1986 and Permits 11885, 11886, and 11887 are approved.

All existing terms and conditions of the water rights remain in effect, including the terms and conditions of the 2013 Order, except as temporarily amended by the following provisions:

1. The totality of the transferred water will be limited to Restoration Flows from (a) water released from Millerton Reservoir that was previously collected to storage and that subsequently remains under Reclamation's dominion and control, and (b) water taken, and subsequently remaining, under dominion and control through the exercise of direct diversion rights at Friant Dam but allowed to pass into the river channel in lieu of being conveyed into and through canals.
2. The points of rediversion for Restoration Flows under Reclamation's License 1986 and Permits 11885, 11886, and 11887 et al. are temporarily amended to add:

Intake Facility for PID, located N 2,004,071 ft and E 6,392,678 ft California Coordinate System, Zone 3, NAD 83, being within SW $\frac{1}{4}$ of Section 15, T5S, R8E, M.D.B.&M

Intake Facility for BCID, located N 2,083,018 ft and E 6,327,281 ft California Coordinate System, Zone 3, NAD 83, being within SE $\frac{1}{4}$ of Section 33, T2S, R6E, M.D.B.&M

3. The maximum redirection rate at PID will be 40 cfs and the maximum redirection rate at BCID will be 65 cfs. A maximum of 76,069 af of Restoration Flows may be redirected at PID and BCID facilities during the transfer period.
4. Redirection of water at BCID and PID is subject to the same requirements as pumping of SJRRP flows at the Jones Pumping Plant and Banks Pumping Plant provided in Condition 19 of the 2013 Order, and any future State Water Board order or decision implementing Bay-Delta water quality objectives. Condition 19 of the 2013 Order states that pumping of SJRRP flows is subject to compliance with water quality and flow objectives in Water Rights Decision 1641 Tables 1, 2, and 3 (D-1641, pp. 181 – 187). D-1641 also requires immediate reporting to the State Water Board if water quality and flow objectives are not being achieved or available information indicates that water quality and flow objectives may not be achieved (Id., Term 11.d p. 150). Consistent with Condition 19 of the 2013 Order, redirection of SJRRP water at BCID and PID is not authorized if terms and conditions of D-1641 are not being achieved or are anticipated to not be achieved based on available information.
5. Redirection of water is subject to compliance by Reclamation with all existing BO's and court orders and any other conditions imposed by other regulatory agencies applicable to these operations.
6. During the times that water is being redirected at the BCID facility pursuant to this Order, San Joaquin River flows used to inform NDOI conditions as well as the three-day running average of San Joaquin River flows during the April-May pulse flow period in D-1641 will be reduced by the quantity of Restoration Flows redirected at the BCID facility pursuant to this temporary transfer order. Reclamation shall notify the Deputy Director for Water Rights three days in advance of commencement of redirections at BCID and provide planned rate and duration of redirections.
7. Redirection of Restoration Flows at BCID and PID intake facilities shall only occur at times when redirection is not possible at the Delta Pumps due to insufficient capacity or other constraints. Prior to commencing any redirections at BCID or PID facilities, Reclamation shall provide evidence documenting insufficient capacity or other constraints exist at the Delta Pumps to the Deputy Director for Water Rights.
8. Within 90 days of the date of Order issuance, Reclamation shall work with State Water Board staff and submit a revised accounting method, in the form of a spreadsheet, for quantifying SJRRP flows into and from Friant Dam to each point of redirection, including at PID and at BCID, referred to as the SJRRP Operations Spreadsheet, and written documentation describing the spreadsheet. The documentation and spreadsheet shall describe how data from the gages identified in Condition 5 of the 2013 Order will be used to ensure Restoration Flows available for redirection reflect losses between Friant Dam to each point of diversion, in conjunction with any other locations required to adequately monitor Restoration Flows where other significant changes in San Joaquin River flows are occurring,

including routing of flows through the Eastside Bypass and Mendota Pool and diversions at Paramount Farms, Holding Contract locations, Arroyo Canal, and any other known points of diversion from the San Joaquin River that could reduce San Joaquin River Restoration Flows.

The SJRRP Operations Spreadsheet shall also:

- a. Include a daily tally for Restoration Flow released, Restoration Flow available for rediversion at each point of rediversion, and Restoration Flow flowing past each point of rediversion after rediversions;
- b. Calculate unexpected seepage losses for each reach of the SJRRP downstream of Friant Dam;
- c. Propose how to incorporate real-time gaging, QA/QC gaging, time lags, and reported San Joaquin River diversions in accounting for Restoration Flow and Restoration Flow available for rediversion; and
- d. Document when availability of flows for rediversion are affected by the conditions of this Order.

Documentation describing the spreadsheet shall also:

- e. Describe the location and reason, supported with data, for any expected losses, including negotiated losses, assumed in the accounting method that differ from those prescribed in Exhibit B;
- f. Explain how mass balance is preserved with the accounting method from Friant Dam to each point of SJRRP rediversion, with respect to quantification of Restoration Flow and flow from other sources at each of the 2013 Order Condition 5 gaging stations as checkpoints, diversions from or of the San Joaquin River, including through the Eastside Bypass, Mendota Pool, and the rate and volume of restoration flow available at each point of recapture; and
- g. Explain how flood flows are accounted for in the SJRRP, including Restoration Flow Allocations and releases of Restoration Flows that are dedicated instream.

The accounting methodology and documentation submitted will be subject to acceptance by the Deputy Director for Water Rights and any revisions requested by the Deputy Director for Water Rights shall be addressed by Reclamation within 30 days of receipt.

9. Within 120 days of the date of this Order, Reclamation shall submit to the Deputy Director for Water Rights an accounting methodology and spreadsheet of daily values implementing said methodology that quantify the amounts of diversion

pursuant to Reclamation's water rights at Friant Dam, and quantify amounts diverted pursuant to other right holders at Friant Dam. The methodology will also characterize the purpose of releases from Friant Dam into the San Joaquin River, Friant Kern Canal, and Madera Canal, and the water right and place of use associated with each release that is made for the purpose of subsequent beneficial use. The methodology shall characterize which flows coming from Friant Dam are releases and which are bypasses. The methodology and spreadsheet are subject to approval by the Deputy Director for Water Rights and Reclamation shall submit requested revisions within 30 days of receipt. The methodology and spreadsheet described in this condition may be incorporated into the SJRRP Operations Spreadsheet described in Condition 8 of this Order.

10. Reclamation is responsible for providing the Deputy Director for Water Rights a monthly report describing the transfer of water pursuant to this Order until such time as the transfer has been completed. The report shall be submitted by the last day of each month and no rediversion is authorized in subsequent months in the absence of submitted reports for the prior months. The report shall include:
 - a. The average rate of water rediverted and volume of water rediverted each day at PID and BCID facilities pursuant to this Order and amounts diverted pursuant to PID and BCID's other bases of right.
 - b. Documentation of insufficient capacity or other constraints that existed at the Delta Pumps that was provided pursuant to Condition 7, descriptions of whether Conditions 1, 4, 5, or 7 constrained rediversions, and whether Reclamation anticipates any of these conditions will constrain rediversions in the subsequent month.
 - c. Notification of whether any daily amount of Restoration Flow below any reach of the SJRRP downstream of Friant Dam during the prior month was lower than the Restoration Flow amount identified in Reclamation's daily coordination calls per compliance with Condition 13 of the 2013 Order. Documentation of flows lower than those identified in the daily coordination calls shall be included in the SJRRP Operations Spreadsheet developed pursuant to Condition 8.
 - d. A copy of the SJRRP Operations Spreadsheet developed pursuant to Condition 8 that includes data for the prior month. The SJRRP Operations Spreadsheet may be used to provide any of the information required pursuant to this condition.

If the above required daily values of rate and volume of water rediverted is in the possession of PID and BCID and has not been provided to Reclamation in time for inclusion in a monthly or annual report, Reclamation shall provide the information to the Deputy Director for Water Rights within 10 days of

receipt in the form of a supplemental monthly report and shall specify when the information was received.

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

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

12. This Order does not authorize any act which results in the taking of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). If a "take" will result from any act authorized under this temporary transfer, Reclamation shall obtain authorization for an incidental "take" permit prior to construction or operation. Reclamation shall be responsible for meeting all requirements of the applicable Endangered Species Act for the temporary transfer authorized under this Order.
13. The State Water Board reserves authority to supervise the transfer, exchange, and use of water under this Order, and to coordinate or modify terms and conditions for the protection of vested rights, fish, wildlife, instream beneficial uses, and the public interest as future conditions may warrant.
14. The footnote to the table in item 2. Location of Point of Diversion for Permit 11885, Permit 11886, and Permit 11887 is amended to read as follows: "* The points of rediversion are for recapture of SJRRP flows that are either: (a) water released from storage or (b) water previously diverted at Friant Dam that remains under the dominion and control of Reclamation from Friant Dam to the points of rediversion, pursuant to Water Code section 1707."

The footnote to the table in item 2. Location of Point of Diversion for License 1986 is amended to read as follows: "* The points of rediversion are for recapture of SJRRP flows water previously diverted at Friant Dam that remains under the dominion and control of Reclamation from Friant Dam to the points of rediversion pursuant to Water Code section 1707."

STATE WATER RESOURCES CONTROL BOARD

ORIGINAL SIGNED BY:

*Erik Ekdahl, Deputy Director
Division of Water Rights*

Dated: APR 30 2021

¹ The Board denied competing applications by the City of Fresno and Fresno Irrigation District with the accommodation that the CVP provide municipal water to the City of Fresno and an average annual supply to Fresno Irrigation District on a parity with other long-term contract holders. (D-935, p. 75.)

² <https://www.usbr.gov/newsroom/newsroomold/newsrelease/detail.cfm?RecordID=73745>.

³ Flood control is not a beneficial use. (SWRCB Decision 1651 at pp. 37-38)

⁴ These values are based on what was provided as attachments in compliance with annual reporting requirements pursuant to License 1986 and Permits 11885, 11886, and 11887. They differ from what is posted on Reclamation's website as appendices of reports titled *Restoration Allocation and Default Flow Schedule*. Using values provided in these appendices, the Restoration Flow releases range from 155,000 af to 191,000 af and likely include amounts released to satisfy Holding Contracts upstream of Gravelly Ford.

⁵ 2021 Updated Restoration Allocation & Default Flow Schedule – February 19, 2021:
https://www.restoresjr.net/?wpfb_dl=2534

⁶ August 27, 2020 – Letter from Delta Watermaster to the California Department of Water Resources Re: Exceedances of Southern Delta Agricultural Water Quality Objective.
https://www.waterboards.ca.gov/waterrights/water_issues/programs/compliance_monitoring/sacramento_sanjoaquin/docs/2020/20200827_swbldr.pdf.

⁷ April 7, 2021 – Letter from Executive Director to USBR Re: Decision 1641 San Joaquin river Flows Compliance.
https://www.waterboards.ca.gov/waterrights/water_issues/programs/compliance_monitoring/sacramento_sanjoaquin/docs/2021/20210407_swbldr.pdf.