

## **FINAL Environmental Assessment**

# **Delivery and Use of Unreleased San Joaquin River Restoration Flows (Water Contract Years 2016-2025)**



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## Attachments

Attachment A – Public Comments and Responses

## List of Abbreviations and Acronyms

Act	San Joaquin River Restoration Settlement Act
AF	Acre Feet
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
Delta	Sacramento–San Joaquin River Delta
EA	Environmental Assessment
ESA	Federal Endangered Species Act
Exchange Contract	Second Amended Contract for Exchange of Waters
Exchange Contractors	San Joaquin River Exchange Contractors Water Authority
Friant Contractors	Friant Division long-term contractors
FWCA	Fish and Wildlife Coordination Act
GSA	General Services Administration
Implementing Agencies	Reclamation, the U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Water Resources, and California Department of Fish and Wildlife
ITA	Indian Trust Assets
MBTA	Migratory Bird Treaty Act
MWD	Metropolitan Water District of Southern California
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NRDC	Natural Resources Defense Council
NRHP	National Register of Historic Places
PEIS/R	Program Environmental Impact Statement/Report
POU	place of use
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
Restoration Flows	San Joaquin River Restoration Flows
ROD	Record of Decision
Secretary	U.S. Secretary of Interior

## San Joaquin River Restoration Program

Settlement	Stipulation of Settlement in <i>NRDC, et al., v. Kirk Rodgers, et al.</i>
SJRRP	San Joaquin River Restoration Program
SWP	State Water Project
TAF	Thousand Acre Feet
URF	Unreleased Restoration Flow
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
Water Board	State Water Resources Control Board

## Definitions

**9d contracts:** Repayment contracts are authorized under Section 9d of the Reclamation Project Act of 1939 for irrigation water. Repayment contracts are used when specific cost obligations for water service can be readily assigned to beneficiaries such as when a specific facility is constructed for the sole benefit of a single contractor. Repayment contracts generally provide for 40 fixed annual payments to repay a fixed repayment amount. The 9d contracts are being used initially as the basis of authority for the sale of Unreleased Restoration Flows (URF) to Friant Contractors.

**Central Valley Project (CVP):** The United States, acting through the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), has constructed and is operating the Central Valley Project for diversion, storage, carriage, distribution and beneficial use, for flood control, irrigation, municipal, domestic, industrial, fish and wildlife mitigation, protection and restoration, generation and distribution of electric energy, salinity control, navigation and other beneficial uses, of water of the Sacramento River, the American River, the Trinity River, and the San Joaquin River and their tributaries.

**Class 1 Water:** The supply of water stored in or flowing through Millerton Lake which, subject to the contingencies described in the water service or repayment contracts will be available for delivery from Millerton Lake and the Friant-Kern and Madera Canals as a dependable water supply during each Water Contract Year.

**Class 2 Water:** The supply of water which can be made available subject to the contingencies described in the water service or repayment contracts for delivery from Millerton Lake and the Friant-Kern and Madera Canals in addition to the supply of Class 1 water. Because of its uncertainty as to availability and time of occurrence, such water will be undependable in character and will be furnished only if, as, and when it can be made available as determined by the Contracting Officer.

**CVP Water:** All water that is developed, diverted, stored, or delivered by the Secretary of the Interior in accordance with the statutes authorizing the CVP and in accordance with the terms and conditions of water rights acquired pursuant to California Law.

**Friant Division:** The main features of this division are: Friant Dam, Millerton Lake, Friant-Kern Canal, and Madera Canal, all constructed and owned by Reclamation.

**Friant Division Long-Term Contractor Service Area:** The area to which a Friant Division Long-Term Contractors are permitted to provide CVP water under the authority of their respective 9d contracts.

**Friant Division long-term contractors, or Friant Contractors:** All public agencies that have executed long-term water service or repayment contracts with the United States Department of the Interior, Reclamation for water service from the Friant Division of the CVP.

**Non-Friant contractors:** Water districts receiving water from Millerton Lake under temporary contracts with Reclamation. These districts are not Friant Division long-term contractors, but are within the Millerton place-of-use and may be CVP or SWP contractors.

**Restoration Flow allocation:** The full natural runoff on the San Joaquin River at Friant Dam over the course of a year sets the allocations and default releases for each Restoration Year (March through February), pursuant to Exhibit B of *NRDC, et al., v. Kirk Rodgers, et al.* (Settlement). The timing and schedule of San Joaquin River Restoration Flows (Restoration Flows) released from Friant Dam are determined based on recommendations made to Reclamation by the Restoration Administrator, and which must comply with the constraints identified in the Settlement.

**Unreleased Restoration Flows (URF):** URFs are generated at Friant Dam if conditions prevent the full release of the Restoration Flow allocation in a given year.

**Water Contract Year:** Water Contract Year is the period from and including March 1 of each calendar year through the last day of February of the following calendar year.



# 1.0 Introduction

This Environmental Assessment (EA) analyzes the affected environment and environmental effects of banking, storing, exchanging, transferring, or selling unreleasable San Joaquin River Restoration Flows (Restoration Flows) from Friant Dam with a range of parties, including Central Valley Project (CVP) Friant Division long-term contractors (Friant Contractors) and others.

The following sections describe the background of the San Joaquin River Restoration Program (SJRRP); the conditions and processes whereby Unreleased Restoration Flows (URFs) are available; the potential delivery or use for these flows both within and outside of the Friant Division; the relationship between this EA and other environmental documents or projects; and the U.S. Department of the Interior, Bureau of Reclamation's (Reclamation) authority to conduct the Proposed Action.

This EA analyzes the mechanisms for implementation of Paragraph 13(i) of the Stipulation of Settlement in the matter of *NRDC, et al., v. Kirk Rodgers, et al.* (Settlement) anticipated at this time. The current Proposed Action does not preclude Reclamation from further refinement of the implementation of the Settlement with regards to Paragraph 13(i). If, as implementation of the Settlement continues to evolve, changes in the Proposed Action are required, Reclamation will complete additional environmental analysis as necessary.

## 1.1 Background

In 1988, a coalition of environmental groups, led by the Natural Resources Defense Council (NRDC), filed a lawsuit challenging the renewal of long-term water service contracts between the United States and Friant Division. A Stipulation of Settlement was reached after more than 18 years of litigation. On September 31, 2006, the Settling Parties, including NRDC, Friant Water Users Authority (now represented by the Friant Water Authority), and the U.S. Departments of the Interior and Commerce, agreed on the terms and conditions of the Settlement, which was subsequently approved by the U.S. Eastern District Court of California on October 23, 2006. The Settlement establishes two primary goals:

- **Restoration Goal** – To restore and maintain 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.

- **Water Management Goal** – To reduce or avoid adverse water supply impacts on all of the Friant Contractors that may result from the Restoration Flows provided for in the Settlement.

The planning and environmental review necessary to implement the Settlement is authorized under Section 3406(c)(1) of the Central Valley Project Improvement Act (Public Law 102-575) (CVPIA) and the San Joaquin River Restoration Settlement Act (Act), included in Public Law 111-11, the Omnibus Public Land Management Act of 2009. The Secretary of the Interior (Secretary) is authorized and directed to implement the terms and conditions of the Settlement through the Act. The Settlement is being implemented by the SJRRP Implementing Agencies: Reclamation, the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), California Department of Water Resources, and California Department of Fish and Wildlife. The Settlement also requires a Restoration Administrator, appointed by the Settling Parties, whose duties include making recommendations to Reclamation for the timing and schedule for releasing Restoration Flows. The SJRRP Program Environmental Impact Statement/Environmental Impact Report (PEIS/R) completed in 2012, analyzed the environmental impacts of program- and project-level actions to implement the Settlement, such as reoperation of Friant Dam, various management activities, and recapture of Restoration Flows (Reclamation 2012a).

The following subsections provide additional background and describe specific concepts that are key for understanding the No Action Alternative, Proposed Action, and Alternative A, subsequently described and analyzed in this EA.

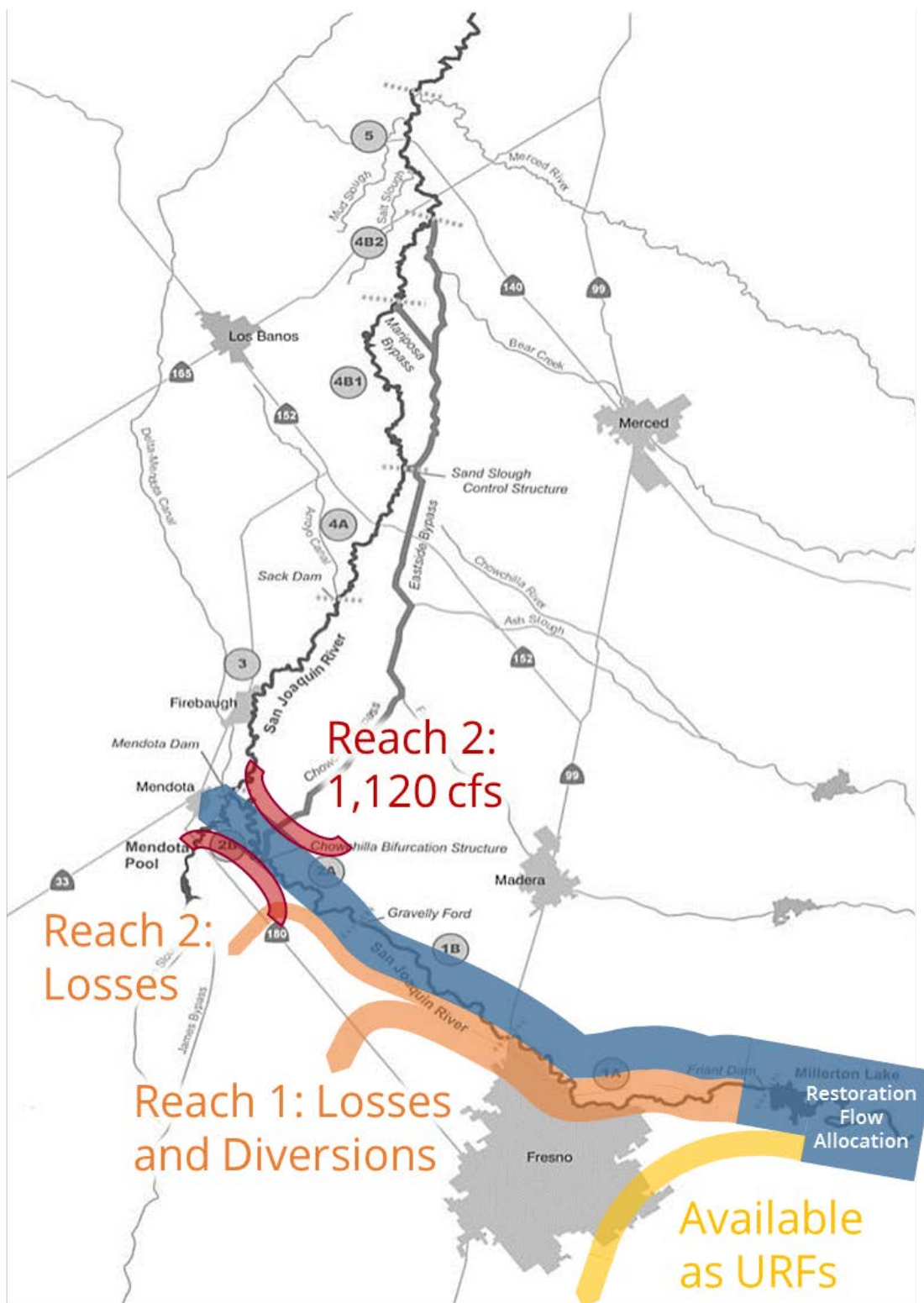
### **1.1.1 Unreleased Restoration Flows**

In any given year, the Restoration Flow allocation is the anticipated volume of water behind Friant Dam that is expected to be available for release into the San Joaquin River to meet the Restoration Goal. This allocation is determined based on the full natural runoff on the San Joaquin River at Friant Dam over the course of a year and also on the guidance provided in the Settlement's Paragraph 13 and Exhibit B and other SJRRP documents, such as the *SJRRP Restoration Flow Guidelines* (Reclamation 2013). However, the volume of flow that is actually released from Friant Dam may be less than the Restoration Flow allocation due to a number of other factors, including downstream demands, channel restrictions and constraints, flood control releases, facility maintenance or construction, and other conditions in the San Joaquin River. These conditions occurred when the SJRRP began the release of Restoration Flows on January 1, 2014, pursuant to Paragraph 13 of the Settlement, and are expected to reoccur in future years. The Settlement specifies that under such conditions, where a portion of Restoration Flows is not able to be released in a given year, the flows become URFs and may be transferred (sold), banked, or exchanged within and outside the Friant Division in a manner that best achieves the Restoration Goal.

Figure 1-1 illustrates how constraints in the Restoration Area, such as those in Reach 2B, where concerns about seepage and stability of private levees, may result in the generation of URFs. In this example, the portion of the Restoration Flow allocation that (1) cannot

safely or responsibly pass through Reach 2, and (2) will not be lost to seepage or diverted in Reaches 1 and 2, cannot be released from Friant Dam. These Restoration Flows are considered URFs.

Notably, URFs are actually a temporary condition for the SJRRP; as channel capacity is improved over time, annual generation of URFs will be reduced. Since its inception, the SJRRP has been addressing the downstream constraints that limit the release of Restoration Flows. These efforts include projects to increase channel conveyance (e.g. channel widening, setback levees, new channel construction) such as through the Mendota Pool Bypass and Reach 2B Improvements Project, and seepage mitigation projects (e.g. interceptor lines, seepage easements). Beyond Reach 2B, in Reaches 3 through 5 there are additional channel capacity and seepage constraints that may also restrict the passage of Restoration Flows and result in the generation of URFs. After 2025, it is expected that URFs will only be generated when there are brief, temporary or presently unexpected interruptions to Restoration Flows, such as in-stream construction projects, sediment removal projects, levee maintenance, and other events that would require river flows to be curtailed for the purpose of safety.



**Figure 1-1. Constraints in Restoration Area, including Reach 2, Can Prevent the Full Release of Restoration Flows, Resulting in URFs at Friant Dam**

URFs may be delivered to Friant Contractors or non-Friant contractors, or made available for release to the San Joaquin River as a supplement to Restoration Flows, as further described below. To provide certainty about the volume and availability of water for delivery and use, the volumes of water labeled as URFs at the time of the declaration that URFs are available become immediately available in Friant Dam. Paragraph 13(i) does not allow for URFs to “increase water delivery reductions to any Friant Division long-term contractor beyond what would have been caused by releases” of full Restoration Flows. There is no plan at this time to store URFs interannually (i.e. across contract years) for priority three described below.

The priority for Reclamation to enter into practical and mutually acceptable agreements for the delivery of URFs is set forth in subparagraphs (1), (2), and (3) of Paragraph 13(i) of the Settlement:

- **Priority 1(A)** – Bank, store, or exchange URFs with Friant Contractors for future use to supplement future Restoration Flows.
- **Priority 1(B)** – Transfer or sell URFs to Friant Contractors and deposit such funds into the Restoration Fund.
- **Priority 2(A)** – Bank, store, or exchange URFs with non-Friant contractors for future use to supplement future Restoration Flows.
- **Priority 2(B)** – Transfer or sell URFs to non-Friant contractors and deposit such funds into the Restoration Fund.
- **Priority 3** – Release water from Friant Dam during times of the year other than those specified in the most recently approved Restoration Flow Schedule, subject to flood control, safety of dams and operations and maintenance requirements.<sup>1</sup>

After delivery, URFs are subject to the terms of the contracts for their delivery and may be further sold, transferred, exchanged and/or banked within existing water rights. Exchanges or sales that involve a Friant Contractor are considered priority one actions.

### 1.1.2 Transfers (Sales)

A transfer is a sale of contract supplies from one water user to another on a temporary basis. As stated above, Paragraph 13(i) allows Reclamation to “transfer or sell” URFs to Friant Contractors and to third parties. As the term “transfer” generally applies to water contractors rather than a water wholesaler like Reclamation, for the purposes of this EA the action of Reclamation delivering URFs in exchange for payment will be referred to as a “sale,” not a transfer.

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<sup>1</sup>Priority three actions have environmental coverage under the SJRRP PEIS/R, as described in Section 1.4, “Incorporation of Related Environmental Documents.”

### **1.1.3 Exchanges/Banking**

Exchanges and banking are similar arrangements involving at least two parties, one of whom is providing or selling water with the expectation to receive water in return, often at a different date.

The most common exchange agreement provides a “bucket-for-bucket” exchange, but certain transactions may provide for an unbalanced exchange, for example: where one party accepts a large volume of water during wet conditions and returns a smaller volume during drier conditions. Terms of exchanges depend on the needs and capabilities of the participants. Water exchanges are also used to facilitate the movement of water to overcome physical obstacles, such as the lack of conveyance facilities, to avoid conveyance losses inherent in moving water long distances, as part of water banking transactions, or for other reasons (Reclamation 2015b).

Banking operations are considered to be a subset of exchanges wherein water delivered is then banked underground and returned to the banking party at a later date from surface water supplies (Reclamation 2015b). Reclamation’s Mid-Pacific Region recently completed water banking guidelines that describe the requirements for storing CVP water in a groundwater bank (Reclamation 2014). Examples of water banks are the Semitropic Groundwater Banking Program in Kern County, the Madera Range Groundwater Bank and the Arvin Edison Water Storage District’s Tejon Water Banking Facility.

### **1.1.4 Water Rights and Place-of-Use**

All CVP contractors, including those within the Friant Division, receive water from Reclamation under contracts they hold to certain quantities of water annually. Reclamation, however, holds the actual rights to this water under permits from the State Water Resources Control Board (Water Board). The delivery and use of URFs is thus subject to the existing Millerton place of use (POU) (Figure 1-2) as specified in Reclamation’s water rights permits for the San Joaquin River (Permits 11885, 11886, 11887, and License 1986). This zone includes most, but not all, of the water districts within the San Joaquin Valley. Sale of URFs outside the Millerton POU could require Reclamation to submit petitions to the Water Board for a temporary change in point of diversion and/or POU.

Additionally, as delivery and use of URFs must comply with the terms of the SJRRP’s water rights permits, nothing in the URF program will “modify or alter” Reclamation’s obligations with regard to the San Joaquin River Exchange Contractors (Exchange Contractors). Under the terms of the 1939 Exchange Contract and Purchase Agreements (as amended), if Reclamation cannot meet their contractual obligations through delivery of water from alternate sources such as the Sacramento-San Joaquin River Delta (Delta), the Exchange Contractors reserve the right to exercise their reserved San Joaquin River water rights through receipt of water released from Friant Dam (Reclamation 1939, 1967). Article 16 of the Second Amended Contract for Exchange of Waters (Exchange Contract) says that “This contract shall never be construed as a conveyance, abandonment or waiver of any water right, or right to the use of water of the Contracting Entities, or as conferring any right whatsoever upon any person, firm or corporation not a

party to this contract, or to affect or interfere in any manner with any right of the Contracting Entities to the use of the waters of the San Joaquin River, its channels, sloughs and tributaries, except to and in favor of the United States to the extent herein specifically provided.”

Additionally, the Water Board’s water rights change order for the SJRRP states that it does not “modify or amend the rights and obligations of parties” to the Exchange Contract and Purchase Agreement, and nothing in the order “changes Reclamation's obligations with respect to the Exchange Contractors or with respect to obligations under Schedule 2 of Contract Ilr 1145.” By definition, URFs are Restoration Flows and are thus subject to the SJRRP's water rights permits, which do not modify or amend Reclamation's obligations to the Exchange Contractors under the established agreements.



# San Joaquin River Restoration Program



Note: High-resolution version of this map is available electronically at <http://www.restoresjr.net/restoration-goal/unreleased-restoration-flows/>.

**Figure 1-2. Millerton Place-of-Use Boundaries**



## 1.2 Purpose and Need

Due to channel capacity constraints, the release of Restoration Flows from Friant Dam is anticipated to be limited until 2025. Until the channel constraints in the San Joaquin River and other conditions are addressed to allow full release of Restoration Flows, URFs may be generated at Friant Dam on an annual basis. The purpose of the Proposed Action is to contribute to achieving the goals of the Settlement by implementing mechanisms for sale, exchange, or banking of URF water supplies in accordance with Paragraph 13(i) of the Settlement.

## 1.3 Relation of Proposed Action to Settlement

Paragraph 13(i) of the Settlement establishes how to manage any URFs starting in 2014, including but not limited to options to enter into agreements with Friant Contractors or third parties to sell, exchange, or bank URFs. Paragraph 13(i) also specifies the release of water from Friant Dam during times of the year other than those specified in the most recently approved Restoration Flow Schedule, as determined by the *Restoration Flow Guidelines*. Any mutually acceptable agreements to facilitate the actions under Paragraph 13(i) would be implemented so as not to increase water supply reductions to Friant Contractors beyond what would have been caused by releases to the river in accordance with the hydrograph releases in Exhibit B of the Settlement. Paragraph 13(i) stipulates that URFs should be managed to best achieve the Restoration Goal.

*13. In addition to the channel and structural improvements identified in Paragraph 11, releases of water from Friant Dam to the confluence of the Merced River shall be made to achieve the Restoration Goal as follows...*

*(i) The Secretary shall commence the Restoration Flows at the earliest possible date, consistent with the Restoration Goal, and the Restoration Administrator shall recommend to the Secretary the date for commencement of the Restoration Flows. In recommending the date for commencement of the Restoration Flows, the Restoration Administrator shall consider the state of completion of the measures and improvements identified in Paragraph 11(a); provided, however, that the full Restoration Flows shall commence on a date certain no later than January 1, 2014. If, for any reason, full Restoration Flows are not released in any year beginning January 1, 2014, the Secretary shall release as much of the Restoration Flows as possible, in consultation with the Restoration Administrator, in light of then existing channel capacity and without delaying completion of the Phase 1 improvements. In addition, the Secretary, in consultation with the Restoration Administrator, shall use the amount of the Restoration Flows not released in any such year by taking one or more of the*

*following steps that best achieve the Restoration Goal, as determined by the Secretary, in such year or future years:*

*(1) First, if practical, enter into mutually acceptable agreements with Friant Division long-term contractors to (A) bank, store, or exchange such water for future use to supplement future Restoration Flows, or (B) transfer or sell such water and deposit the proceeds of such transfer or sale into the Restoration Fund created by this Settlement; or*

*(2) Enter into mutually acceptable agreements with third parties to (A) bank, store, or exchange such water for future use to supplement future Restoration Flows, or (B) transfer or sell such water and deposit the proceeds of such transfer or sale into the Restoration Fund created by this Settlement; or*

*(3) Release the water from Friant Dam during times of the year other than those specified in the applicable hydrograph as recommended by the Restoration Administrator, subject to flood control, safety of dams and operations and maintenance requirements.*

*The Secretary shall not undertake any action pursuant to Paragraphs 13(i)(1) through 13(i)(3) that increases the water delivery reductions to any Friant Division long-term contractor beyond what would have been caused by releases in accordance with the hydrographs (Exhibit B).*

## **1.4 Incorporation of Related Environmental Documents**

This EA incorporates the affected environment and environmental analysis performed in the SJRRP PEIS/R. The PEIS/R was finalized in July 2012 and the corresponding Record of Decision (ROD) was issued on September 28, 2012 (Reclamation 2012a and 2012b). The PEIS/R and ROD analyzed at a project-level the reoperation of Friant Dam to release Interim and Restoration Flows to the San Joaquin River, making water supplies available to Friant Contractors at a pre-established rate, and the recapture of Interim and Restoration Flows at existing facilities within the Restoration Area (defined as the San Joaquin River between Friant Dam and the Merced River) and in the Delta.

The PEIS/R and ROD also include program-level actions, which are identified as actions that may require the completion of additional analysis pursuant to the National Environmental Policy Act (NEPA) and/or California Environmental Quality Act (CEQA), as appropriate as they are further developed. Some of the program-level actions identified in the document include Settlement Paragraph 13(i) actions to develop agreements for URF sale, exchange, or banking. The PEIS/R acknowledges that such agreements may require additional analysis in accordance with NEPA and/or CEQA. The

PEIS/R also analyzes, at a program level, the Paragraph 13(i) action to release water from Friant Dam during times of the year other than those specified in the most recently approved Restoration Flow Schedule.

This EA is being prepared for actions anticipated from 2016 through 2025 that will not involve the construction of new facilities or modification of existing facilities within or outside the CVP water service areas. Should the URF program extend beyond 2025 or if substantive changes to the URF program as described herein are considered (consistent with the Settlement), then Reclamation will complete supplemental environmental analysis, as necessary. This EA further incorporates by reference the following information from the PEIS/R:

- **Chapter 3.0 – Considerations for Describing the Affected Environment and Environmental Consequences** – This EA incorporates the analysis and assumptions presented in the chapter. Specifically, analysis of the Study Area for the PEIS/R as it relates to this action the explanation of significance criteria, impact comparisons, impact levels, and mitigation measures are incorporated into the contents of this EA.
- **Chapter 4.0 – Air Quality** – This EA incorporates the analysis performed to assess impacts related to air quality, which would include stationary sources in the CVP/State Water Project (SWP) water service areas. The assessment of impacts and ultimate determinations, all being less than significant for the operation of the SJRRP, are also incorporated.
- **Chapter 5.0 – Biological Resources – Fisheries** – This EA incorporates the analysis performed to support the assessments for the SJRRP. The incorporated material from the PEIS/R includes the quantitative and qualitative assessments of aquatic species impacts as a result of the implementation of the SJRRP, specifically related to physical processes such as water temperatures, water quality, flow patterns, fish habitat conditions, pollutant discharge and mobilization, turbidity, diversions and entrainment, predation, and food web support in the Delta. The assessment of impacts and determinations for the operation of the SJRRP are also incorporated.
- **Chapter 6.0 – Biological Resources – Vegetation and Wildlife** – This EA incorporates the analysis performed in the PEIS/R related to the assessment of sensitive species and habitats in or near the project area, including the CVP/SWP water service areas. The incorporated material includes the investigation of the impacts of the SJRRP on alteration of special-status plant species or habitats in the CVP/SWP water service areas. The PEIS/R found that effects on special-status species, sensitive natural communities, waters of the United States, and implementation of adopted conservation plans in the CVP/SWP water service areas would be less than significant.

- **Chapter 7.0 – Climate Change and Greenhouse Gas Emissions** – This EA incorporates by reference the analysis of climate change and greenhouse gas emissions related to Settlement implementation. NEPA and CEQA standards related to climate change analysis vary greatly and the PEIS/R analysis incorporates the more stringent State of California measures to analyze and model greenhouse gas emissions. The explanation of significance criteria, impact comparisons, impact levels, and mitigation measures are incorporated into the contents of this EA.
- **Chapter 9.0 – Environmental Justice** – This EA incorporates by reference the discussion of the environmental setting associated with minority groups and socioeconomic indicators of well-being (low-income groups) and analysis related to environmental justice.
- **Chapter 12.0 – Hydrology – Groundwater** – This EA incorporates by reference the discussion of groundwater conditions presented in the PEIS/R, and the analysis of potential impacts to groundwater levels and quality in the CVP/SWP water service areas related to the SJRRP. The chapter describes current and historical conditions and explains the aquifer regions surrounding the San Joaquin River, many of which suffer from groundwater overdraft, land subsidence, and water quality concerns. Generally, both the groundwater levels and groundwater quality impacts are anticipated to be potentially significant and unavoidable for the SJRRP overall, in association with the reduction of water supply to the Friant Contractors.
- **Chapter 13.0 – Hydrology – Surface Water Supplies and Facilities Operations** – This EA incorporates by reference the discussion of operations and facilities for water deliveries, storage, and other relevant information related to the CVP and SWP presented in this chapter of the PEIS/R, and the analysis of potential impacts to surface water supplies and facilities related to the Proposed Action. All impacts for these factors associated with the implementation of the SJRRP were determined to be less than significant.
- **Chapter 14.0 – Hydrology – Surface Water Quality** – This EA incorporates by reference the discussion of the environmental setting and the analysis of potential impacts related to surface water quality. Of particular relevance to this EA is the analysis performed in this chapter related to impacts on water quality in the CVP/SWP water service areas related to the Proposed Action. All impacts for these factors associated with the implementation of the SJRRP were determined to be less than significant or less than significant and beneficial.
- **Chapter 16.0 – Land Use Planning and Agricultural Resources** – This EA incorporates by reference the discussion of the environmental setting and analysis for Land Use Planning and Agricultural Resources.

- **Chapter 26.0 – Cumulative Impacts** – This EA incorporates by reference the discussion of the effects of the SJRRP in relation to past, present, and reasonably foreseeable future actions, specifically in the CVP/SWP water service area. This includes discussions of planned actions associated with the collective CALFED Water Resources Projects, other water resource projects, resource management plans and programs, and the related impact analysis from the SJRRP on cumulative air quality, fisheries, vegetation and wildlife, groundwater, surface water supplies and facilities operations, surface water quality, and land use planning. The PEIS/R found the potential for the SJRRP to make a considerable contribution to a significant cumulative impact for two resource topics that are relevant to the Proposed Action analyzed in this EA: (1) changes in groundwater levels and groundwater quality in CVP/SWP water service areas, and (2) substantial diminishment of agricultural land resource quality and importance because of altered water deliveries.

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## 2.0 Alternatives

This EA evaluates the No Action Alternative, the Proposed Action, and Alternative A. The Proposed Action involves the distribution and use of URFs through sales, exchanges, and banking with Friant Contractors, and sales to other contractors within the Millerton POU (non-Friant contractors). Alternative A involves the distribution and use of URFs through sales, exchanges, and banking with Friant Contractors, and sales to non-Friant contractors both within and outside of the Millerton POU. The Proposed Action and Alternative A are subject to the following parameters:

- No native or untilled land (fallow for three consecutive years or more) will be cultivated with the water involved in this action.
- The water will be used for reasonable and beneficial use.
- The delivery and use of URFs will be capped to the total volume of existing Class 1 and Class 2 contract supplies for the entire Friant Division and will not increase overall consumptive use.
- The delivery and use of URFs will not lead to any land conversion (e.g. conversion of agricultural use to urban use).
- The delivery and use of URFs will comply with all applicable Federal, State, Local or Tribal laws or requirements imposed for the protection of the environment and Indian Trust Assets (ITA).

### 2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not develop, negotiate, execute, and administer agreements with Friant Contractors, non-Friant contractors, or other parties to sell, exchange, or bank URFs during Water Contract Years 2016-2025. The No Action Alternative would not be consistent with the Settlement or the SJRRP Selected Alternative as described in the 2012 ROD and analyzed in the PEIS/R.

### 2.2 Proposed Action

Under the Proposed Action, Reclamation would negotiate, execute, and administer agreements to sell water to individual Friant Contractors and non-Friant contractors. Initially, sales to Friant Contractors would occur under the “other water” provision of their existing 9d water repayment contracts. Sales to non-Friant contractors would occur

under a similar provision of their 9e water service contracts or may occur under the 1939 Reclamation Act. In both cases, the agreements would be limited to one-year sales. In the future, Reclamation may conduct sales through another instrument than the 9d and 9e contracts if it is delegated the authority to use alternate means. These one-year agreements could be amended as needed and redrawn or developed the following year if all parties agreed.

Friant Contractors would receive delivery of URFs through the existing delivery and distribution systems through which they receive their contract supplies. Sales to non-Friant contractors would be facilitated through points of diversion that Reclamation maintains the right for along the San Joaquin River (e.g., Mendota Pool or Arroyo Canal), any direct connections that contractors may have along the Madera or Friant-Kern Canals, or via connections through Friant Contractors' water distribution systems, with their approval. The quantity of sales would be limited annually by URF availability and by the total CVP Class 1 and Class 2 contract amounts for the entire Friant Division (Table 2-1). Per the Settlement, proceeds of such sales would be collected and applied to best achieve the Restoration Goal.

**Table 2-1. Annual CVP Contract Supplies for Friant Contractors**

<b>Friant Contractor</b>	<b>Class 1 Supply (AF/year)</b>	<b>Class 2 Supply (AF/year)</b>	<b>Total (AF/year)</b>
Arvin-Edison WSD	40,000	311,675	351,675
Chowchilla WD	55,000	160,000	215,000
Delano-Earlimart ID	108,800	74,500	183,300
Exeter ID	11,100	19,000	30,100
Fresno (city)	60,000	0	60,000
Fresno County	150	0	150
Fresno ID	0	75,000	75,000
Garfield WD	3,500	0	3,500
Gravelly Ford WD	0	14,000	14,000
Hills Valley WD	1,250	0	1,250
International WD	1,200	0	1,200
Ivanhoe ID	6,500	500	7,000
Kaweah Delta WCD	1,200	7,400	8,600
Kern-Tulare WD	0	5,000	5,000
Lewis Creek WD	1,200	0	1,200
Lindmore ID	33,000	22,000	55,000
Lindsay (city)	2,500	0	2,500
Lindsay-Strathmore ID	27,500	0	27,500
Lower Tule River ID	61,200	238,000	299,200
Madera County	200	0	200
Madera ID	85,000	186,000	271,000
Orange Cove (city)	1,400	0	1,400



**Table 2-1. Annual CVP Contract Supplies for Friant Contractors (contd.)**

<b>Friant Contractor</b>	<b>Class 1 Supply (AF/year)</b>	<b>Class 2 Supply (AF/year)</b>	<b>Total (AF/year)</b>
Orange Cove ID	39,200	0	39,200
Pixley ID	0	0	0
Porterville ID	15,000	30,000	45,000
Saucelito ID	21,500	32,800	54,300
Shafter-Wasco ID	50,000	39,600	89,600
Southern San Joaquin MUD	97,000	45,000	142,000
Stone Corral ID	10,000	0	10,000
Tea Pot Dome WD	7,200	0	7,200
Terra Bella ID	29,000	0	29,000
Tri-Valley WD	400	0	400
Tulare County	0	0	0
Tulare ID	30,000	141,000	171,000
<b>TOTAL</b>	<b>800,000</b>	<b>1,401,475</b>	<b>2,201,475</b>

Key:

AF = acre-foot

CVP = Central Valley Project

ID = Irrigation District

WCD = Water Conservation District

WD = Water District

WSD = Water Storage District

Additionally, under the Proposed Action, Reclamation would negotiate, execute, and administer agreements with individual Friant Contractors to exchange or bank URFs for future return to the SJRRP and to support the Restoration Goal. These arrangements are intended to deliver URFs to a participating Friant Contractor one year, in exchange for a fraction of that contractor's water being made available at Friant Dam at a later date. The water made available at Friant Dam would supplement Restoration Flows released into the river, typically during drier conditions. Reclamation has determined that for exchanges to be valuable to the Restoration Program, water will have to be returned to Millerton Lake behind Friant Dam. Exchanges directly with third parties are deemed not practical for Reclamation to pursue at this time; no third parties have been identified with supplies upstream from Friant Dam that would allow for exchanges that result in future-year supplemental releases to Restoration Flows. Initially, exchange/banking agreements would be established as contracts under the Reclamation Project Act of 1939 as authorized by the CVPIA, and would be limited to 10,000 acre-feet and up to five-year terms per contractor. In the future, Reclamation may conduct exchanges/banking through another contracting instrument if it is delegated the authority to use alternate means. Should options be made available where third parties could exchange water and return a portion of water to Millerton Lake, Reclamation would consider exchanges directly with third parties.

The specific sales or exchange/banking agreements, including timing and places of use, will be finalized when URFs are declared available, and will be determined by hydrology and the available Restoration Flow allocation, the Restoration Flow schedule, and other factors depending on the negotiations with the participants. The program will likely evolve based on experiences of Reclamation and Friant and non-Friant contractors during initial years of sales and exchanges, and additional environmental analysis would be completed, as needed, to support changes in the program consistent with the Settlement.

For both contractors and for Reclamation, the procedures and conditions for receiving and using URF water would be similar to those applied to other water supplies. Under the Settlement, a portion of the Friant Division's contract supplies were dedicated to the Restoration Goal. Restoration Flows, and thus URFs, exist as a reduction to the amounts that would have otherwise been delivered to Friant Contractors absent the Settlement. Before the Settlement, under most hydrologic conditions Friant Contractors would have likely received volumes of water now considered Restoration Flows as part of their Class 2 deliveries; in wet hydrologic conditions, non-Friant contractors may have received volumes of water now considered Restoration Flows as un-storable, surplus water supplies that were made available under Section 215 of the Reclamation Act. Similarly, in drier hydrologic conditions some of these Restoration Flows would have been delivered as Class 1 contract supplies. Thus, through the Proposed Action, Reclamation would be managing the unreleasable portion of Restoration Flows – and contractors receiving them – consistent with prior experiences and practice; the major changes would be in terminology and in revenue generation and use.

The procedures adopted by Reclamation for the management of URFs are described in the Restoration Flow Guidelines. As per the Settlement, the first priority for receipt of URFs would be satisfied within the Friant Division, if practical. Thus, Friant Contractors would be given the first opportunity to acquire URFs before Reclamation considers sales to non-Friant contractors. The availability of URFs would generally be determined by March 1 based on the Restoration Flow allocation and the Restoration Administrator's recommended hydrographs. Reclamation, in consultation with the Restoration Administrator, would determine what fraction of URFs would be designated for exchange and what fraction for sales. On or about March 1, URFs would be made available to Friant Contractors, and then expanded to be available for non-Friant contractors only as necessary. Subsequent determinations of URF quantities may be made multiple times between March 1 and May 15. Only rarely would URFs be made available after May 15. URFs would be promptly scheduled for delivery once they are sold or exchanged.

The availability of URFs depends on multiple factors, including Restoration Year Type, the Restoration Administrator's recommended hydrograph, and downstream channel constraints. Table 2-2 shows the potential range of URFs that may be generated depending on the year type.

**Table 2-2. Range of URF Availability by Restoration Year Type**

<b>Water Year Type</b>	<b>Estimated URFs (TAF) @ 300 cfs capacity<sup>1</sup></b>	<b>Estimated URFs (TAF) @ 700 cfs capacity<sup>2</sup></b>	<b>Estimated URFs (TAF) @ 1500 cfs capacity<sup>3</sup></b>
Wet	240-399	120-252	0-165
Normal-Wet	120-240	10-155	0-86
Normal-Dry	60-140	0-74	0-20
Dry	0-40	0-28	0
Critical-High	0-10	0	0
Critical-Low	0	0	0

Notes – Table values are based on both the SJRRP 2015 Revised Framework for Implementation Appendix G and calculations performed by the SJRRP.

<sup>1</sup> This channel capacity is expected to be the constraint for part or all of 2016

<sup>2</sup> This channel capacity is expected to be the constraint 2017-2020

<sup>3</sup> This channel capacity is expected to be the constraint 2021-2024

Key:

cfs = cubic feet per second

TAF = thousand acre-feet

URF = Unreleased Restoration Flow

The rate of decline in generation of URFs over time is principally dependent on the progress of planned and ongoing channel capacity improvement projects undertaken by the SJRRP to allow for the full release of Restoration Flows. After 2025, it is expected that URFs will only be generated when there are brief, temporary or presently unexpected interruptions to Restoration Flows, such as in-stream construction projects, sediment removal projects, levee maintenance, and other events that would require river flows to be curtailed for the purpose of safety.

### **2.2.1 Alternative A**

Under Alternative A, Reclamation would implement the Proposed Action but also negotiate, execute, and administer URF sale agreements and deliver URFs to water users outside of the Millerton POU (Figure 1-2). As part of this action, Reclamation would apply for and obtain from the Water Board a revision to its permit (Permits 11885, 11886, 11887, and License 1986) to temporarily change the point of redirection and/or place of use to allow delivery of water from Friant Dam to users outside the Millerton POU.

This action could include sales that allow for the delivery of URF water supplies to water users both in and outside the San Joaquin Valley. Due to geographic proximity and disposition of existing conveyance facilities and other infrastructure, the most likely recipient for URFs outside the Millerton POU would be the Metropolitan Water District of Southern California (MWD), or third parties who would receive such water from MWD. In some cases, depending on proximity to the facilities of the Friant Division and CVP, the recipient of URFs may or may not take delivery of the water directly. For example: District A is a SWP contractor with service area boundaries adjacent to District Z, a Friant Contractor. District A and District Z regularly engage in temporary exchanges and sales of their supplies, and have existing agreements, interconnections, or shared conveyance facilities to allow this. Reclamation approves allowing District Z to deliver

water to District A through those shared facilities, although it may be subject to the existing agreements between District A and District Z.

## 3.0 Affected Environment and Environmental Consequences

The following sections describe the potential impacts of the No Action Alternative, the Proposed Action, and Alternative A.

### 3.1 No Action

Under the No Action Alternative, Reclamation would not develop agreements with Friant Contractors, non-Friant contractors, or other parties to sell, exchange, or bank URFs during Water Contract Years 2016-2025. Consistent with the third priority action in Paragraph 13(i) of the Settlement, Reclamation would be compelled to manage URFs by releasing them from Friant Dam into the San Joaquin River on a modified schedule, during times of the year other than specified in the most recently approved Restoration Flow Schedule. However, release of URFs may still be constrained by a number of other factors, including downstream demands, channel restrictions and constraints, facility maintenance or construction, and other conditions in the San Joaquin River. Paragraph 13(i) does not allow for URFs to “increase water delivery reductions to any Friant Division long-term contractor beyond what would have been caused by releases” of full Restoration Flows. There is no plan at this time to store URFs interannually (i.e. across contract years) for priority three. Volumes of URFs not released into the river under a modified schedule nor released during flood operations would be incorporated into the current or subsequent Water Contract Year’s supply for the Friant Contractors.

As no URF sales would occur under the No Action Alternative, no revenue would be generated to help achieve the Restoration Goal.

It is speculative to quantify how water supply deliveries would be changed as a result of the URFs not being sold, exchanged or banked, as the water would either be spilled, released under provisions for priority three of Paragraph 13(i), or held in storage until the end of the Restoration Year and then incorporated into the subsequent year’s Friant contract supplies. Spills would result from a combination of hydrologic conditions that are difficult to project. The release of water from Friant Dam for priority three of Paragraph 13(i) would be subject to real-time constraints and conditions that are not possible to predict, and thus it is speculative to predict the nature of a modified release Restoration Flow schedule. The Friant Contractors have many options on managing their contract supplies and storage of water in Friant Dam, however any additional supplies incorporated into their contract supplies can be expected to be managed in a manner consistent with historical management that occurred prior to the SJRRP.

### 3.2 Proposed Action

The environmental consequences of the Proposed Action would be very similar to the No Action Alternative.

Capacity restrictions in the San Joaquin River are anticipated to generate URFs at Friant Dam through 2025. During this time, under the Proposed Action and the No Action Alternative, the quantity of water that would be generated as URFs would be managed with the same infrastructure used to deliver supplies from Friant Dam to individual Friant Contractors and non-Friant contractors.

During years with flood control operations, the volumes that either spill from Friant Dam or are delivered to Friant and/or non-Friant contractors would be similar for both the No Action Alternative and the Proposed Action; the difference would be in how deliveries are characterized and accounted for from a financial perspective, as funds from sales and exchanges/banking activities would be used to contribute to the Restoration Goal.

During years without flood releases, greater volumes of URFs would be delivered to Friant Contractors under the Proposed Action as compared to the No Action Alternative as a result of deliveries to the Friant Contractors having a higher priority than making additional releases to the San Joaquin River. Paragraph 13(i) does not allow for URFs to “increase water delivery reductions to any Friant Division long-term contractor beyond what would have been caused by releases” of full Restoration Flows. There is no plan at this time to store URFs interannually (i.e. across contract years). Thus, under the No Action Alternative, URFs could be released during flood operations or released into the San Joaquin River under a modified schedule, per priority three of Paragraph 13(i). URFs not ultimately released to the river would likely be incorporated into the subsequent Water Contract Year’s supply for the Friant Contractors.

The Proposed Action would not include any construction activities and would use existing infrastructure for the delivery of URFs.

The following section discusses how the Proposed Action would not impact any resource categories beyond what was analyzed in the SJRRP PEIS/R, and therefore they are not further analyzed in this EA.

- **Air Quality** – The Proposed Action would not include any construction activities and would use existing infrastructure for the delivery of URFs and therefore would not result in a substantial increase in long-term regional or local emissions. Furthermore, the quantity of water delivered for the Proposed Action would be approximately equivalent to the total quantity of water that would be delivered under the No Action. In addition, no additional pumping is expected to occur. Therefore, emissions from pumping are not anticipated to be different between the Proposed Action and the No Action Alternative. Emissions from the Proposed Action would not be anticipated to violate air quality standards, contribute substantially to an existing or projected air quality violation, or conflict with or

obstruct implementation of Air Resources Board and San Joaquin Valley Air Pollution Control District air planning efforts.

- **Biological Resources** – As no land use changes or additional disturbance would occur as a result of the Proposed Action, no habitat changes would occur that could potentially affect species, including those covered under the Endangered Species Act (ESA) and Migratory Bird Treaty Act (MBTA). Because there would be no land disturbance or land use changes associated with the Proposed Action, and any potential water sales would occur within the bounds of existing 2008 USFWS and 2009 NMFS Biological Opinions associated with the coordinated long-term operation of the CVP and SWP and environmental analyses, there would be no effect to vegetation and wildlife including ESA listed species, critical habitats, or species protected by the MBTA. The Proposed Action long-term impacts to water supply or water quality would be the same as the No Action Alternative; therefore it can be assumed that anadromous and Delta fish species, and their designated critical habitat, would not be affected by the action alternatives. While there are sensitive biological communities as identified by the California Natural Diversity Database (CNDDB) and threatened or endangered species identified under ESA potentially occurring in the project area, it is anticipated that there would be no impacts to these species for the Proposed Action as compared with the No Action Alternative.
- **Climate Change and Greenhouse Gas** – The Proposed Action is a 10-year action and the total quantity of water delivered would be approximately equivalent to the quantity delivered under the No Action Alternative. Therefore, the Proposed Action would not result in a difference in long-term regional or local emissions. Also, as compared with the No Action Alternative, the Proposed Action would not add to the global inventory of gases that would contribute to global climate change and would not result in increases in greenhouse gas emissions. Additionally, the Proposed Action would not be affected by long-term effects of climate change. The Proposed Action is adaptive to climate change by design, as the availability of Restoration Flows is based on hydrology and the most current runoff probabilities, which are responsive to a changing climate.
- **Cultural Resources** – The Proposed Action constitutes a Federal undertaking as defined in 36 CFR § 800.16(y). The Proposed Action would not include any construction activities and would use existing infrastructure for the delivery of URFs. As such, Reclamation determined that this undertaking has no potential to cause effects on historic properties, pursuant to 36 Code of Federal Regulations (CFR) Part 800.3(a)(1), and will have no impact on cultural resources.
- **Environmental Justice** – As compared to the No Action Alternative, the Proposed Action would not have a disproportionate impact on minority or low-income populations. The delivery and sales of water in the No Action Alternative and the Proposed Action would be to the same potential parties, therefore there would be no disproportionate impact to minority or low income populations.

- **Indian Trust Assets** – While there are known ITAs within the affected environment, the Proposed Action would have no impact to ITAs.
- **Land Use and Agricultural Resources** – The Proposed Action would not result in any land conversion, and no land fallowing or habitat restoration would be deferred as the quantity of water delivered would be approximately equivalent to the total quantity of water that would be delivered under the No Action Alternative. As described above, no new lands would be brought into agricultural production as a result of the Proposed Action. Existing land use is not expected to change as a result of the implementation of the Proposed Action.
- **Water Resources** – The Proposed Action would result in the same volume of water delivered under existing water rights and permits as the No Action. Under the Proposed Action, the quantity of sales would be limited annually by URF availability and by the total CVP Class 1 and Class 2 contract amount for the entire Friant Division (Table 2-1). These actions are already covered under existing licenses and permits and would therefore not have an impact to water resources.

### 3.3 Alternative A

Alternative A is the same as the Proposed Action, except Reclamation would also develop URF sale agreements with other users outside of the Millerton POU. As stated above, this action could include sales or exchanges that allow for the delivery of URF water supplies to water users both in and outside the Millerton POU. In some cases, depending on proximity to the facilities of the Friant Division and CVP, the recipient of URFs may or may not take delivery of the water directly. It is speculative to assume precisely how water users both in and outside of the Millerton POU would use the water, as the exact transactions that lead to the delivery and use of URFs would depend on both financial and water supply conditions throughout the Central Valley. However, these supplies would be used in a manner consistent with how Friant and Non-Friant contractors use their existing contract water supplies from Friant Dam, and in a manner consistent with how these supplies would have been used before the SJRRP and implementation of the Settlement began.

Sale of URFs outside the Millerton POU could require Reclamation to submit petitions to the Water Board for a temporary change in point of diversion and/or place of use.

The environmental consequences for Alternative A would primarily be the same as the Proposed Action described for the majority of the resource categories described above. However, it is foreseen that there could be potential impacts to Environmental Justice, Land Use and Agricultural Resources, and Hydrology - Groundwater. These potential impacts are described below.



### **3.3.1 Resources of Potential Concern**

#### ***Environmental Justice***

The Millerton POU contains minority and low-income populations. Alternative A may lessen the amount of water delivered within the Millerton POU, as compared with the No Action Alternative. Potential reductions in water deliveries could cause fallowing of agricultural land which could affect specific geographic distributions of low-income populations or minority groups due to the proportion of low-income agricultural workers who work on these agricultural lands. This, in turn, could result in negative environmental, social, and economic effects in the local environment area, thereby disproportionately affecting these populations. As compared to the No Action Alternative, Alternative A could have a disproportionate impact on minority or low-income populations within the Millerton POU.

#### ***Land Use and Agricultural Resources***

The Millerton POU contains a vast array of land uses, from open space, to urban to agriculture. Alternative A may lessen the amount of water delivered within the Millerton POU, as compared with the No Action Alternative. Agricultural resources could be negatively impacted, as less water could be delivered within the Millerton POU for agricultural needs. This could result in agricultural land fallowing. Therefore, as compared with the No Action Alternative, Alternative A could have a negative impact on agricultural resources.

#### ***Hydrology – Groundwater***

The Millerton POU is within both the San Joaquin River and Tulare Lake Hydrologic Regions. Both regions are heavily reliant on groundwater and have exhibited groundwater elevation declines. Alternative A may lessen the amount of water delivered within the Millerton POU, as compared with the No Action Alternative. This could result in additional groundwater pumping in the region. Therefore, as compared with the No-Action, Alternative A could have a negative impact on groundwater resources.

The evaluation of the environmental consequences of Alternative A demonstrated that Alternative A, while similar to the Proposed Alternative, could result in effects to Environmental Justice, Land Use and Agricultural resources, and Hydrology – Groundwater. However, the degree to which these impacts materialize would depend upon the precise nature of the URF program to deliver water supplies outside the current Millerton POU.

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## **4.0 Consultation and Coordination**

### **4.1 National Environmental Policy Act**

This EA has been prepared pursuant to NEPA, which was signed into law in 1969 (42 U.S. Code [USC] Section 4321 et seq.). In addition, it was prepared in accordance with Council on Environmental Quality (CEQ) regulations for implementing NEPA, 40 CFR Parts 1500- 1508, and General Services Administration (GSA) Order ADM 1095.1F. This EA assesses if the Proposed Action would cause any significant environmental effects. A draft of this EA was circulated for 30 days for public review and comment, and all comments received appear with responses in Attachment A, “Public Comments and Responses,” and revisions and clarifying text have been added to the EA as appropriate.

### **4.2 Fish and Wildlife Coordination Act of 1934 (16 USC § 661 et seq.)**

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation coordinate with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The action alternatives do not involve Federal water development projects; therefore, the FWCA does not apply.

### **4.3 Endangered Species Act of 1973 (16 USC § 1531 et seq.)**

Section 7 of the ESA requires Federal agencies, in consultation with the Secretary of the Interior, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species.

The Proposed Action would not have any effect on listed species beyond those analyzed in the previously described applicable biological opinions. The Proposed Action would not change the land use patterns of the cultivated or fallowed fields that do have some value to listed species. In addition, the short duration of the water availability, the requirement that no native lands be converted without consultation with the USFWS, and the stringent requirements for sales under applicable laws would prevent any impact to any federally listed species or any critical habitat.

#### **4.4 National Historic Preservation Act (54 USC § 300101 et seq.)**

The NHPA of 1966, as amended (54 USC § 300101 et seq), requires that Federal agencies consider the effects of their undertakings on historic properties, i.e., cultural resources that are eligible for inclusion in the National Register of Historic Places (NRHP), and provide the Advisory Council on Historic Preservation an opportunity to comment on such effects. Compliance with 54 USC § 306108, commonly known as Section 106 of the NHPA, follows a series of steps that, if necessary, are used to identify potentially interested parties, determine an area of potential effects (APE), conduct cultural resource inventories, determine if historic properties are present within the APE, and assess effects on any identified historic properties. These steps are outlined in the regulations at 36 CFR Part 800, which implements Section 106 of the NHPA. The activities associated with the currently Proposed Action would involve no new ground disturbance, no change in land use, and the use of existing conveyance features to move and store water. Reclamation has determined that the Proposed Action is an undertaking that has no potential to cause effects on historic properties, pursuant to 36 CFR 800.3(a)(1).

#### **4.5 Migratory Bird Treaty Act of 1918 (16 USC § 703 et seq.)**

The MBTA implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the MBTA provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the MBTA, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

The action alternatives would not change the land use patterns of the cultivated or fallowed fields that have value to birds protected by the MBTA; therefore, the action alternatives would have no effect on birds protected by the MBTA.

#### **4.6 Executive Order 113007 and American Indian Religious Freedom Act of 1978 – Indian Trust Assets and Sacred Sites on Federal Lands**

Executive Order 113007 and the American Indian Religious Freedom Act of 1978 are designed to protect ITAs, accommodate access and ceremonial use of Native American sacred sites by Native American religious practitioners, avoid adversely affecting the

physical integrity of such sacred sites, and protect and preserve the observance of traditional Native American religions. The action alternatives would not violate these protections.

#### **4.7 Executive Order 12898 – Environmental Justice in Minority and Low-Income Populations**

Executive Order 12898 requires Federal agencies to identify and address disproportionately high and adverse human health and environmental effects of Federal programs, policies, and activities on minority and low-income populations. The action alternatives have been assessed for potential environmental, social, and economic impacts on minority and low-income populations. Minority and low-income populations would not be disproportionately exposed to adverse effects relative to the benefits of the Proposed Action. However, as identified previously in this EA, Alternative A could have potential disproportionate adverse effects to minority and low-income populations as compared to the No Action Alternative.

#### **4.8 Central Valley Project Improvement Act**

Reclamation's evolving mission was written into law on October 30, 1992, in the form of Public Law 102-575, the Reclamation Projects Authorization and Adjustment Act of 1992. Included in the law was Title 34, the CVPIA. The CVPIA amended previous authorizations of the CVP to include fish and wildlife protection, restoration, and mitigation as project purposes having equal priority with irrigation and domestic water supply uses, and fish and wildlife enhancement as having equal priority with power generation. The action alternatives would be consistent with CVPIA.

#### **4.9 Central Valley Project Long-Term Water Service Contracts**

In accordance with CVPIA Section 3404c, Reclamation is renegotiating long-term water service contracts. As many as 113 CVP water service contract locations within the Central Valley of California may be renewed during this process. The action alternatives would be consistent with CVP long-term water service contracts.

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## **5.0 List of Preparers and Reviewers**

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