U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region

RECORD OF DECISION

SAN JOAQUIN RIVER RESTORATION PROGRAM

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Recommended by:

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Date 9/28/2012

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1.0 Introduction

This document constitutes the Record of Decision (ROD) of the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), Mid-Pacific Region, for the San Joaquin River Restoration Program (SJRRP) in the Central Valley of California. The SJRRP is the subject of the Final Program Environmental Impact Statement/Report (PEIS/R) (dated July 31, 2012) prepared by Reclamation, which incorporates in total the Draft PEIS/R (released April 2011), in compliance with the National Environmental Policy Act (NEPA), and by the California Department of Water Resources (DWR) as the state of California (State) lead agency for the California Environmental Quality Act (CEQA). This ROD has been prepared in accordance with NEPA and the Council on Environmental Quality's (CEQ) NEPA implementing regulations (40 Code of Federal Regulations (CFR) 1500 – 1508). The decision made herein is based on information presented in the Draft and Final PEIS/R, which are incorporated by reference.

2.0 Background

The SJRRP was established in late 2006 to implement the Stipulation of Settlement (Settlement) in *NRDC, et al., v. Kirk Rodgers, et al.* Reclamation, as the Federal lead agency under NEPA, and DWR, as State lead agency under CEQA, have prepared a joint PEIS/R to implement the Settlement. Federal authorization for implementing the Settlement is provided in the San Joaquin River Restoration Settlement Act (Act), included in Public Law 111-11. The Settlement establishes two primary goals:

- **Restoration Goal** – To restore and maintain fish populations in "good condition" in the mainstem San Joaquin River below Friant Dam to the confluence of the Merced River, including naturally reproducing and self-sustaining populations of salmon and other fish.

- **Water Management Goal** – To reduce or avoid adverse water supply impacts on all of the Friant Division long-term contractors that may result from the Interim and Restoration flows provided for in the Settlement.

The purpose of the proposed action is to implement the Settlement consistent with the Act. The Act authorizes and directs the Secretary of the Interior (Secretary) to implement the Settlement. The Settlement specifies the need to increase water releases from Friant Dam to support achieving the Restoration Goal while implementing a plan for recirculation, recapture, reuse, exchange, or transfer of these flows to reduce or avoid adverse impacts to water deliveries to the Friant Division long-term contractors. The study area and Restoration Area referenced in this ROD are shown in Figure 1-1 and 1-2 of the Draft PEIS/R.

To achieve the Restoration Goal, the Settlement calls for releases of water from Friant Dam to the confluence of the Merced River (referred to as Interim and Restoration flows), a combination of channel and structural modifications along the San Joaquin River below Friant Dam, and reintroduction of Chinook salmon. Restoration Flows are specific volumes of water to be released

from Friant Dam during different year types, according to Exhibit B of the Settlement; Interim Flows are experimental flows that will continue until full Restoration Flows are initiated, to collect relevant data concerning flows, temperatures, fish needs, seepage losses, recirculation, recapture, and reuse.

To achieve the Water Management Goal, the Settlement calls for recirculation, recapture, reuse, exchange, or transfer of the Interim and Restoration flows to reduce or avoid impacts to water deliveries to all of the Friant Division long-term contractors caused by these flows. In addition, the Settlement establishes a Recovered Water Account (RWA) and recovered water program to make water available to all of the Friant Division long-term contractors who provide water to meet Interim or Restoration flows, to reduce or avoid the impact of these flows on such contractors.

3.0 Project Description and Other Alternatives Considered

The alternatives development process identified a No-Action alternative and six reasonable alternatives for consideration in the PEIS/R. Program alternatives include the following:

- **No-Action Alternative** – Under the No-Action Alternative, the Settlement would not be implemented. The No-Action Alternative includes projected conditions as they would exist in the study area at the end of the PEIS/R planning horizon (2030), including projects and programs considered reasonably foreseeable by that time.

- **Alternative A1: Reach 4B1 at 475 cfs, Delta Recapture** – Alternative A1 includes operation of Friant Dam to release Interim and Restoration flows, and a range of physical actions to achieve the Restoration and Water Management goals. Under Alternative A1, Reach 4B1 would convey at least 475 cubic feet per second (cfs), and the Eastside and Mariposa bypasses would convey any remaining Interim and Restoration flows. Alternative A1 includes the potential for recapture of Interim and Restoration flows in the Restoration Area and in the Sacramento-San Joaquin Delta (Delta) using existing diversion facilities, and the potential for recirculation of all recaptured Interim and Restoration flows. A Physical Monitoring and Management Plan is included in Alternative A1 to provide guidelines for observing and adjusting to changes in conditions regarding flow, seepage, channel capacity, propagation of native vegetation, and suitability of spawning gravel. Alternative A1 also includes a Conservation Strategy consisting of management actions necessary to achieve a net increase in the extent and quality of riparian and wetland habitats in the Restoration Area, avoid reducing the long-term viability of sensitive species, and be consistent with adopted conservation plans.

- **Alternative A2: Reach 4B1 at 4,500 cfs, Delta Recapture** – Alternative A2 includes the same Restoration and Water Management actions as Alternative A1, plus additional Restoration actions to increase Reach 4B1 channel capacity to at least 4,500 cfs, with integrated floodplain habitat. Under this alternative, the Eastside Bypass would not convey Interim or Restoration flows after completion of Reach 4B1 channel modifications.

- **Alternative B1: Reach 4B1 at 475 cfs, San Joaquin River Recapture** – Alternative B1 includes the same Restoration and Water Management actions as Alternative A1, plus additional Water Management actions for recapturing Interim and Restoration flows in the San Joaquin River below the confluence of the Merced River, using existing facilities with potential in-district modifications.

- **Alternative B2: Reach 4B1 at 4,500 cfs, San Joaquin River Recapture** – Alternative B2 includes the same Restoration and Water Management actions as Alternative B1, plus the additional Restoration actions included in Alternative A2 to increase Reach 4B1 channel capacity to at least 4,500 cfs, with integrated floodplain habitat. Under this alternative, the Eastside Bypass would not convey Interim or Restoration flows after completion of Reach 4B1 channel modifications.

- **Alternative C1: Reach 4B1 at 475 cfs, New Pumping Plant Recapture** – Alternative C1 includes the same Restoration and Water Management actions as Alternative B1, plus additional Water Management actions for recapturing Interim and Restoration flows, through new infrastructure, to increase pumping capacity on the San Joaquin River below its confluence with the Merced River.

- **Alternative C2: Reach 4B1 at 4,500 cfs, New Pumping Plant Recapture** – Alternative C2 includes the same Restoration and Water Management actions as Alternative C1, plus the additional Restoration actions included in Alternative A2 to increase Reach 4B1 channel capacity to at least 4,500 cfs, with integrated floodplain habitat. Under this alternative, the Eastside Bypass would not convey Interim or Restoration flows after completion of Reach 4B1 channel modifications.

Each action alternative includes the actions called for in the Settlement, and would achieve the purpose and need of the project and achieve the Restoration and Water Management goals.

The PEIS/R presents two levels of analyses, program-level and project-level. The analysis of the alternatives was implemented in accordance with CEQ Regulations (40 CFR 1502). The program-level analysis evaluated the actions identified in the Settlement. For actions evaluated at a program-level of detail, a potential range of future construction and management actions is included in the alternatives to bracket the probable range of effects. This bracketed range of potential effects allows for an informed analysis of system-wide and cumulative impacts resulting from implementing the entirety of the Settlement. The PEIS/R also includes more detailed project-level analysis of certain actions fully described in each alternative.

Environmentally Preferable Alternative, Alternative B2

The environmentally preferable alternative best promotes the national environmental policies expressed in NEPA. The environmentally preferable alternative attains the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences, causes the least damage to the environment, and best protects natural and cultural resources. However, CEQ Guidelines do not require adoption of the environmentally preferable alternative for implementation.

All of the action alternatives analyzed in the Draft and Final PEIS/R would achieve implementation of the Settlement and would contribute to the success of the goals for the environmentally preferable alternative. Under all action alternatives, construction and long-term operations and maintenance impacts would occur related to biology, climate change, cultural resources, hydrology, land use planning and agricultural resources, noise, power and energy, recreation, socioeconomics, and visual resources, compared to the No-Action Alternative or existing conditions, even after the implementation of relevant mitigation measures.

Alternatives C1 and C2 could reduce surface water supply, groundwater, and socioeconomic impacts compared with Alternatives A1 and A2. However, Alternatives C1 and C2 would have greater adverse impacts related to the construction of new pumping infrastructure on the San Joaquin River between the Merced River confluence and the Delta. Alternatives B1 and B2 could reduce surface water supply, groundwater, and socioeconomic impacts compared with Alternatives A1 and A2, therefore, Alternatives B1 and B2 have the least adverse impacts.

Alternative B2 would result in similar impacts in the Restoration Area as Alternative B1. However, construction activities in Reach 4B1 under Alternative B2 would result in greater impacts than would Alternative B1. The extent of these short-term impacts would depend on the level of disturbance to existing conditions necessary to provide at least 4,500 cfs capacity and would involve the removal of some or all existing vegetation. Increased floodplain habitat under Alternative B2 would provide greater long-term benefits to vegetation, wildlife, and fisheries than Alternative B1. The net benefit to fisheries of floodplain improvements in Reach 4B1 under Alternative B2 is unknown at this time, however, the benefit is assumed to be substantially greater than the fisheries benefits under Alternative B1 until a future study can be completed. Increased channel capacity under Alternatives B1 and B2 would provide benefits to flood management, increasing flood management flexibility through the increased capacity of Reach 4B1 to convey flood flows. Benefits to flood management would be greater under Alternative B2 compared to Alternative B1, as Alternative B2 would result in greater channel capacity in Reach 4B1. Therefore, Alternative B2 was selected as the environmentally preferable alternative.

The environmentally preferred alternative was not selected because Alternative C1, the selected alternative, best increases the potential to achieve the Water Management Goal in the Settlement, thereby best meeting the project's purpose and need. The selection of the Alternative C1 is discussed in Section 4.0 below.

4.0 Decision

The Preferred Alternative should be an alternative that completes the action and that best meets the purpose and need for the action, as defined in the PEIS/R. Alternative C1 was identified as the Preferred Alternative in the PEIS/R. The decision is to implement Alternative C1, as proposed by Reclamation and DWR and described in the PEIS/R. After consideration of the analysis in the Draft and Final PEIS/R (released April 2011 and July 2012, respectively), and other information in the record, including public comments, Reclamation has determined that Alternative C1 would best meet the purpose and need of the project by implementing the Settlement and best

achieves the Water Management Goal. The purpose and need of the project, outlined in Chapter 1 of the Draft PEIS/R, states that the proposed action "requires changes to the operation of Friant Dam in support of achieving the Restoration Goal while reducing or avoiding adverse impacts to Friant Division long-term contractors' water deliveries caused by releasing Interim or Restoration Flows in support of achieving the Water Management Goal." All alternatives provide similar opportunity for meeting the restoration goals, including the requirement to establish sustainable fish populations. The lead agencies also recognize the need for flexibility during implementation of the Settlement, which will increase the potential to achieve both the Restoration and Water Management goals. Alternative C1 provides the best opportunity to achieve the Water Management Goal, resulting in the greatest range of recapture opportunities both in the Restoration Area and downstream. This would further reduce potential impacts to the Friant Division long-term contractors by providing more reliable long-term water management options.

Attachment A provides the full project description for Alternative C1 and for the project- and program-level actions to be implemented in association with the SJRRP.

5.0 Basis for Decision, Issues Evaluated, and Factors Considered

On the basis of analyses of potential impacts presented in the Draft PEIS/R, and in consideration of the comments received on the Draft PEIS/R, Reclamation identified Alternative C1 as the Preferred Alternative. Reclamation recognizes the need for flexibility during implementation of the Settlement, which will increase the potential to achieve the Restoration and Water Management goals. Alternative C1 would provide the greatest flexibility in implementing the Settlement consistent with the Act while fulfilling the purpose and need of the SJRRP.

Alternative C1 includes the same project-level actions included in all other action alternatives, plus additional program-level water management actions compared to other action alternatives considered in the PEIS/R. Additional program-level Water Management actions in Alternative C1 include recapturing Interim and Restoration flows at existing water diversion facilities along the San Joaquin River through exchanges; in-district improvements to facilitate the exchanges; and potential construction of new infrastructure to increase pumping capacity along the San Joaquin River below the Merced River confluence for the direct recapture of Interim and Restoration flows; and construction of new infrastructure to convey recaptured flows to the Delta-Mendota Canal (DMC) or California Aqueduct. Alternative C1 would be implemented consistent with Paragraph 16(a) of the Settlement, which states "...that any recirculation, recapture, reuse, exchange or transfer of the Interim and Restoration flows shall have no adverse impact on the Restoration Goal, downstream water quality or fisheries."

Paragraph 11(a)(3) (actions in Paragraph 11(a) are commonly referred to as the Phase 1 improvements) of the Settlement stipulates required channel modifications to Reach 4B to convey at least 475 cfs. The Act (Section 10009(f)(2)(B)) requires that a determination be made on increasing the channel capacity to 4,500 cfs before undertaking any "substantial construction" in Reach 4B1. Modifications in Reach 4B1 to convey at least 475 cfs, as identified in

Alternative C1, would not include substantial construction, such as changes to existing levees in Reach 4B1, but may include a low-flow channel to support fish migration until such time as the determination under Section 10009(f)(2)(B) of the Act is made. Paragraph 11(a)(8) of the Settlement provides for modifications to structures in the Eastside and Mariposa bypass channels to provide anadramous fish passage on an interim basis until the completion of Phase 2 actions (described below). Paragraph 11(a)(9) of the Settlement stipulates modifications to the Eastside and Mariposa bypass channels to establish a suitable low-flow channel if the Secretary, in consultation with the Restoration Administrator, determines that such modifications are necessary to support anadramous fish migration. As required by the Settlement and the Act, Reclamation and DWR are currently conducting a site-specific study on the potential effects of implementing actions for the conveyance of Interim and Restoration flows and incorporation of fish habitat through Reach 4B and the bypasses, consistent with the Settlement and the Act. This separate site-specific study will provide the basis to determine whether and to what extent to expand channel conveyance capacity in Reach 4B1 or use an alternative route. Under the proposed action, Alternative C1, Reach 4B1 would convey at least 475 cfs and the Eastside and Mariposa bypasses would convey any remaining Interim and Restoration flows. This decision best fits the Settlement requirements of Paragraph 11(a)(3) and thus, the purpose and need of the project. The proposed action also allows Reclamation and DWR to utilize the results of a site-specific study on the potential effects of modifying Reach 4B1 in determining the desired extent of modifications.

As described in the PEIS/R, potential impacts of the action alternatives were analyzed for 21 resource topics. The results of this evaluation indicate that Alternative C1, compared with the environmentally preferable alternative, would have additional adverse impacts related to the construction and operation of new pumping infrastructure on the San Joaquin River between the Merced River confluence and the Delta. However, Alternative C1 could reduce adverse impacts to surface water supply, groundwater, and socioeconomic resources compared to other action alternatives.

The public comment period for the Draft PEIS/R began April 22, 2011, and ended September 21, 2011. The lead agencies received comments on the Draft PEIS/R by mail, fax, and e-mail, and through transcripts of comments made at public hearings. More than 80 comment letters were received during the public comment period. Many comments received on the Draft PEIS/R encouraged the lead agencies to identify a preferred alternative that would promote a flexible management strategy, such as integrated floodplains and development of a river corridor strategy. Other comments encouraged the lead agencies to identify a preferred alternative that would achieve the maximum flexibility in the recapture and recirculation of Interim and Restoration flows. Still other comments were concerned with identifying a preferred alternative that would be adaptable to changes in funding source and would establish adequate funding for the SJRRP. Alternative C1 would allow the greatest opportunity for flexible management during implementation of the Settlement.

5.1 Compliance with Other Regulations

The PEIS/R supports the needed permits, petitions, and similar compliance, coordination, and consultation efforts for project-level actions, as shown in Table 5-1. Project-level compliance, coordination, and consultation for the SJRRP will be carried out as described below.

Table 5-1.
Project-Level Compliance, Consultation, and Coordination Supported by PEIS/R

Resource	Applicable Laws/Regulations/Permits	Regulating Agency/Agencies
Federally Listed Species	Section 7 of the Federal Endangered Species Act – Section 7 Consultation	U.S. Fish and Wildlife Service and National Marine Fisheries Service
Essential Fish Habitat	Magnuson-Stevens Fishery Conservation and Management Act	National Marine Fisheries Service
Fish and Wildlife Resources	Fish and Wildlife Coordination Act Report	U.S. Fish and Wildlife Service
Cultural Resources	Section 106 Consultation	State Historic Preservation Officer
Water Rights	California Water Code – Water Right Petitions (including petitions for changes to Water Right Permits 11885, 11886, and 11887)	State Water Resources Control Board
Indian Trust Assets	59 FR 1994; Reclamation DM 512.2; Executive Order 13175	U.S. Department of the Interior

Key:
PEIS/R = Program Environmental Impact Statement/Report
State = State of California

Section 7 of Federal Endangered Species Act – Section 7 Consultation. Reclamation consulted under Section 7 of the Endangered Species Act (ESA) with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) for this action. All action alternatives evaluated in the PEIS/R considered impacts to ESA-listed species and impacts to these species were a consideration in comparison with the No Action Alternative.

U.S. Fish and Wildlife Service

USFWS completed the Biological Opinion (BO) for implementation of the SJRRP on August 21, 2012. The BO addresses the effects of the project on to blunt-nosed leopard lizard (*Gambelia sila*), giant garter snake (*Thamnophis gigas*), delta smelt (*Hypomesus transpacificus*), vernal pool crustaceans (*Branchinecta* spp.), California tiger salamander (*Ambystoma californiense*), San Joaquin kit fox (*Vulpes macrotis mutica*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), least Bell's vireo (*Vireo bellii pusillus*), Fresno kangaroo rat (*Dipodomys nitratoides exilis*), riparian (San Joaquin Valley) woodrat (*Neotoma fuscipes riparia*), riparian brush rabbit (*Sylvilagus bachmani riparius*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) and on critical habitat for vernal pool plants and crustaceans, California tiger salamander, Fresno kangaroo rat, delta smelt, and palmate-bracted birds beak (*Cordylanthus palmatus*). USFWS consulted on the SJRRP and concluded that for project-level Interim and Restoration flow releases of up to 1,660 cfs from Friant Dam that the project is not likely to adversely affect ESA-listed species. Critical habitat for Colusa grass and vernal pool

plants and crustaceans has been identified to be present within the Restoration Area. However, Interim or Restoration flow releases from Friant Dam at or below 1,660 cfs would not affect the primary constituent elements for listed species within these critical habitats. Reclamation will re-engage in consultation with USFWS on program-level actions and for Interim and Restoration flows releases in excess of 1,660 cfs from Friant Dam. Additionally, USFWS proposed the following conservation recommendations:

- Assist USFWS in implementing recovery actions identified within the Recovery Plans for federally-listed species and their critical habitats.

- Encourage or require the use of appropriate California native species in revegetation and habitat enhancement efforts associated with projects authorized or undertaken by Reclamation.

- Sightings of any listed or sensitive animal species should be reported to the California Natural Diversity Database of the California Department of Fish and Game. A copy of the reporting form and a topographic map or adequate aerial photograph clearly marked with the location the animals were observed should be provided to USFWS.

The Fish and Wildlife Coordination Act Report, prepared by USFWS, concluded that the implementation of the SJRRP would be likely to improve the diversity, quality and quantity of habitat along the San Joaquin River system which would benefit a variety of resident and migratory wildlife species. USFWS further recommended the following actions:

- Construction or modification of riverine structures, such as fish ladders at dams, to improve passage for lamprey.

- Taking surrounding land use into account when planning projects in order to provide for optimization of terrestrial restoration actions for bird conservation.

- Release of flows to assist in supporting a natural hydrograph to support scouring, deposition, and point bar movement while avoiding potential impacts to bank swallow nesting colonies.

- Continuance of the collaborative approach to the planning and implementation of the SJRRP with USFWS.

National Marine Fisheries Service

NMFS completed the BO for implementation of the SJRRP on September 18, 2012. The BO addresses the effects of the project on Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha*) evolutionarily significant unit (ESU) and designated critical habitat, Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*) ESU, California Central Valley steelhead (*Oncorhynchus mykiss*) distinct population segment (DPS) and critical habitat, and the southern DPS of North American green sturgeon (*Acipenser medirostris*) and critical habitat. NMFS concluded that for project-level Interim and Restoration flow releases of up to 1,660 cfs from Friant Dam is not likely to adversely affect ESA-listed species or destroy or adversely modify their designated critical habitats. Reclamation will re-engage in consultation

with NMFS on all program-level actions and for Interim and Restoration flows releases in excess of 1,660 cfs from Friant Dam. Additionally, NMFS proposed the following conservation recommendations:

- Operation of the Hills Ferry Barrier or another barrier or fish passage assistance that will reduce the likelihood that adult steelhead will migrate into the project areas where they are likely to encounter adverse conditions.

- Continue monitoring specifically for steelhead in Reach 5 of the Restoration Area until steelhead monitoring can be integrated into the larger monitoring program for Chinook salmon.

- Reclamation should initiate a single ESA consultation (when possible) covering all studies proposed in the Monitoring and Analysis Plan that have the potential to affect listed fish species well in advance of study implementation.

- Subsequent reach-specific project ESA consultations should evaluate both the construction and operations of those projects.

- Where practicable Reclamation should combine projects for ESA consultation to reduce NMFS consultation workload and accurate analysis of effects to listed species.

- Reclamation should continue coordinating with NMFS on the completion of the Restoration Flow Guidelines. It is important that these guidelines include all operations of Friant Dam as they relate to protecting anadramous fishes and their habitats.

- Buffer flows, acquired water and flexible flow periods should be used to benefit Chinook salmon and steelhead habitats and optimize conditions for the completion of these species life cycles.

- If flows are released from Friant Dam during times other than those specified in the applicable flow schedule, consideration should be given to the needs of anadramous fishes when determining the timing and pattern of those releases.

- Minimize pesticide (herbicide) use to control invasive vegetation. The combinations of pesticides and surfactants can cause significant effects to aquatic species.

- Reclamation should continue close coordination with NMFS regarding all Friant Dam operations and their relationship to the operations of the larger Central Valley and State Water projects.

- When designing site specific projects consider a holistic approach that minimizes fish passage structures along the migratory corridor.

- Evaluate aquatic and avian fish predators and design projects to reduce and/or eliminate predation of anadramous fishes.

- Develop a system-wide plan for recapturing Interim and Restoration flows that closely considers the potential impacts to anadramous fishes and their habitats and minimizes negative impacts to those fish.

- Fisheries related action should be vetted through the Adaptive Management Process as described in the SJRRP Fisheries Management Plan.

Magnuson-Stevens Fishery Conservation and Management Act. The BO from NMFS states that the effects of the SJRRP on salmonid habitat are generally expected to apply to Pacific salmon Essential Fish Habitat (EFH). The implementation of the SJRRP through 2025 may adversely affect the EFH of Pacific salmon. However, NMFS finds that potential impacts will be offset by implementation of measures described in the Conservation Strategy of the SJRRP PEIS/R to avoid or minimize effects to EFH. Effects to EFH resulting from fluctuations in flow due to the release of Interim and Restoration flows from Friant Dam, construction activities related to fish passage and river restoration, and monitoring activities may contribute to short-term and temporary sediment oscillations and increased turbidity. These effects to EFH may result in temporary disturbances in some juvenile salmonids, but due to the temporary nature and infrequency of these disturbances, the adverse effects that are anticipated to result from the SJRRP are not of the type, duration, or magnitude that would be expected to adversely affect or modify EFH to the extent that it could lead to an appreciable reduction in the function and conservation role of the affected habitat. Further, program-level actions, such as having sustained flow, providing fish passage to spawning grounds, and improved instream and floodplain habitats in the San Joaquin River from Friant Dam to the Merced River confluence will directly benefit EFH for Pacific salmon. NMFS recommends conservation measures consistent with those listed above as part of the NMFS BO for the SJRRP.

Cultural Resources– Section 106. Reclamation, as the federal lead agency, shall comply with Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470) and its implementing regulations at 36 CFR Part 800. As described in the PEIS/R, project-level actions could result in the disturbance or destruction of cultural resources. These project-level impacts will be addressed when site-specific details are available to more adequately define the Area of Potential Effects and address impacts to significant cultural resources. In an effort to streamline the Section 106 process and identify adverse effects, as well as mitigation measures for these potential impacts, Reclamation will develop a Programmatic Agreement in consultation with the State Historic Preservation Officer and other consulting parties outlined in the regulations at 36 CFR §800.

California Water Code – Water Right Petitions. To implement the Settlement consistent with the Act, Reclamation has petitioned the State Water Resources Control Board (SWRCB) for its approval of project-level water right changes pursuant to applicable provisions of the California Water Code to accomplish project-level actions. The water rights involved in implementing the Act are licensed water right Application 23 (direct diversion only), and permitted water right Applications 234, 1465, and 5638, which presently authorize storage, direct diversion, and rediversion at Friant Dam. The new authorizations sought pursuant to these initial petitions will accomplish the following:

- Dedicate Interim and Restoration flows, made available through the release at Friant Dam of previously stored water, or water previously diverted at Friant Dam that remains under dominion and control of Reclamation at Friant Dam, to instream fish and wildlife purposes through the entire San Joaquin River from Friant Dam, through Delta channels, to the Jones and Banks pumping plants. This dedication also includes flows routed through Reaches 2 and 3 of the Eastside Bypass, the entire Mariposa Bypass, and the reach of Bear Creek from the confluence of the Eastside Bypass downstream to the confluence with the San Joaquin River. All dedicated flows remain within then-existing channel capacities.

- Authorize specific points of rediversion for Interim and Restoration flows between Friant Dam and the Delta.

- Authorize Jones and Banks pumping plants and San Luis Dam as points of rediversion of Interim and Restoration flows.

- Authorize Fish and Wildlife Preservation and Enhancement as a purpose of use for Interim and Restoration flows within all the protected reaches described above and within the boundaries of the Lone Tree Unit of the Merced National Wildlife Refuge and the East Bear Creek Unit of the San Luis National Wildlife Refuge.

The PEIS/R provides complete project-level environmental review and demonstration of requisite findings under the California Water Code for SWRCB to approve the petitions for change for protecting and recapturing Interim and Restoration flows.

Indian Trust Assets. Indian Trust Assests (ITAs) are legal interests in property held in trust by the United States for federally-recognized Indian tribes or individual Indians. ITAs cannot be sold, leased, or otherwise encumbered without the approval of the United States. The U.S. Department of the Interior is required to protect and preserve ITAs from loss, damage, unlawful alienation, waste, and depletion. It is the general policy of the U.S. Department of the Interior to perform its activities and programs in such a way as to protect ITAs and avoid adverse effects whenever possible. Potential impacts to ITAs would stem from any actions that affect land, minerals, federally reserved hunting and fishing rights, federally reserved water rights, and instream flows associated with trust land in the study area. No reservations or Rancherias are located along the San Joaquin River upstream from Friant Dam, the Restoration Area, the San Joaquin River from Merced River to the Delta, or the Delta. The nearest ITA is Table Mountain Rancheria, which is approximately 3 miles east-southeast of Millerton Reservoir and is not affected by implementation of Alternative C1. No program- or project-level impacts would occur to ITAs.

6.0 Implementing the Decision

6.1 Monitoring and Reporting on Implementation of Mitigation Measures and Environmental Commitments

Reclamation has adopted all practicable means to avoid or minimize environmental harm for the Preferred Alternative and is committed to implementing the measures identified in the PEIS/R. Attachment B to this ROD, the Environmental Commitment Plan and Tracking Program, is part of this decision as a means to avoid and/or minimize adverse effects of the Preferred Alternative.

Mitigation and commitments adopted by Reclamation as part of this ROD are detailed in Attachment B. Attachment B includes a summary of all the project- and program-level environmental commitments and mitigation for the Preferred Alternative, identifies the party responsible for implementation, and provides a time frame for completion. Additionally, Attachment B includes a list of environmental commitments described in the project description of the PEIS/R and methods for tracking and reporting on the implementation of these commitments. Reclamation and DWR prepared Attachment B to guide the completion of all required environmental commitments and mitigation measures in an effective manner during project implementation.

Reclamation will implement a monitoring and enforcement program to ensure that identified mitigation measures and environmental commitments are accomplished. If monitoring shows that mitigation is inadequate, Reclamation will confer with the appropriate federal regulatory agencies, state regulatory agencies, implementing agencies, parties to the Settlement, landowners, or other stakeholders as necessary to ensure successful completion and implementation of alternate or substitute mitigation to achieve an adequate offset of environmental impacts. If substitute mitigation cannot be created or established, Reclamation will further confer with the appropriate parties to determine an acceptable approach to implementing the activity within the impact analysis that was prepared in accordance with the documentation supporting this ROD.

6.2 Annual Work Plan and Activity Sequencing

In implementing this ROD, Reclamation will prepare each year an Annual Work Plan that outlines expected annual SJRRP activities for the next twelve month period. The Annual Work Plan will also include projected activities for the subsequent two years and a reporting on the activities accomplished in the prior year. In preparing and implementing the Annual Work Plan and determining annual SJRRP activities in the plan, Reclamation will consult with the parties to the Settlement, the Implementing Agencies, and the affected downstream landowners and water entities. Reclamation will consult with the State of California to ensure that State and Federal SJRRP activities are coordinated and will include State SJRRP activities in the Annual Work Plan, as appropriate. By October 1 of each year, Reclamation will make the Annual Work Plan available on the SJRRP website. The Annual Work Plan will be subject to revision to respond to changing conditions, including environmental, budgetary or otherwise.

In implementing this ROD, Reclamation is committed to the successful and expeditious implementation of the Restoration and Water Management goals of the Settlement consistent with the Act. With that commitment in mind, and in the exercise of technical expertise and professional judgment, Settlement activities will necessarily be implemented in a sequence in which some activities are initiated before others. Consistent with and in the process of fulfilling the requirements set forth in the Settlement and Act and in consideration of available resources, the following SJRRP activities will be expedited, given their fundamental value in realization of the Settlement's goals:

- Activities that provide for naturally-reproducing and self-sustaining populations of salmon including reintroduction actions for spring-run and fall-run Chinook salmon, and, if necessary, an interim trap and haul program.
- Activities to implement the Water Management Goal.
- Activities in Paragraph 11(a) of the Settlement that prevent entrainment of fish by installation of a fish screen at Arroyo Canal, provide for fish passage over Sack Dam, and prevent straying of fish into Mendota Pool, by use of fish screens or other measures determined to be appropriate.
- Activities that provide for the release of Interim and Restoration flows in the San Joaquin River, including actions to address seepage management, levee stability, and channel capacity constraints (including the Mendota Pool Bypass).

7.0 Public Issues and Areas of Controversy

During multiple SJRRP meetings and workshops, the public and agency resources staff identified the following major areas of concern. The list below is abbreviated and from the comprehensive list that is discussed in detail in the Draft PEIS/R in Chapter 28 – Consultation, Coordination, and Compliance:

- Concerns related to potential seepage damage to property along the San Joaquin River from the implementation of the SJRRP.
- Uncertainty about the establishment of a self-sustaining Chinook salmon population.
- Requests for additional specificity on elements to achieve the Settlement's Water Management Goal.
- Interrelation of existing Biological Opinions and the impacts of the implementation of the SJRRP.

8.0 Comments on Final Program Environmental Impact Statement/ Report

Four pieces of public correspondence were received on the Final PEIS/R.

A letter was received from the San Joaquin River Exchange Contractors Water Authority and the San Joaquin River Resource Management Coalition (collectively referred to as the Exchange Contractors) expressing concerns with recent information related to ground subsidence within the Restoration Area. Their concerns are related to how subsidence may affect channel capacities, the schedule for implementing specific SJRRP activities, and project-level designs. Land subsidence as a result of groundwater overdraft within the Restoration Area was discussed in the Draft PEIS/R, Chapter 12, Hydrology – Groundwater. The analysis finds that there is a current state of overdraft in the San Joaquin Valley Groundwater Basin and declining groundwater levels would continue with or without the SJRRP. Chapter 12 of the Draft PEIS/R identifies that groundwater level decreases and impacts associated with groundwater withdrawals would continue with or without the SJRRP. As stated in the Draft and Final PEIS/R, Reclamation would continue to implement environmental commitments and mitigation, such as those identified in Attachment B of this ROD, in order to reduce or avoid impacts. Site-specific projects addressed at a program-level in the PEIS/R, such as the construction of Mendota Pool Bypass or modifications to Reach 4B1, would be designed using standard engineering practices, which include accounting for regional and site-specific conditions, including subsidence, where appropriate. Consistent with the Draft and Final PEIS/R and this ROD, measures to reduce or avoid impacts to third parties would be implementing as part of these future activities. As stated in the Draft and Final PEIS/R, the project-level NEPA analysis that will be prepared for each site-specific action will address specific environmental impacts associated with scheduling and construction of facilities. Because subsidence was addressed in the PEIS/R, mitigation and environmental commitments will continue to be implemented, and site-specific projects would be designed using standard engineering practices, which include accounting for regional and site-specific conditions, including subsidence, where appropriate, the analysis and resulting environmental impacts addressed in the Draft and Final PEIS/R do not change in response to this concern from the Exchange Contractors.

The letter from the Exchange Contractors, and similarly an August 17, 2012 letter received from the Lower San Joaquin Levee District, included a request for Reclamation and DWR to analyze the impacts of subsidence on the environment in a recirculated PEIS/R. Consistent with NEPA, the PEIS/R provides an analysis of the environmental impacts of implementing the SJRRP on the surrounding environment and the assessment of the significance of those impacts. It is outside of the scope of the PEIS/R to analysis the impacts of subsidence on the environment. No changes to the Final PEIS/R have been made.

A letter was received from the Kings River Water Association (KRWA) and the Kings River Conservation District (KRCD). The letter raises three main points: 1) concerns related to fishing pressures on the Kings River; 2) concerns related to straying of salmonid species into the Kings River from the San Joaquin River in flood years; and, 3) questions related to interpretation of the definition of "Third Parties". These three points are addressed below:

1. Concerns related to fishing pressures on the Kings River – KRWA and KRCD express concerns regarding redirected fishing pressure to the Kings River from the San Joaquin River as a result of the SJRRP. The angling data presented in the Draft and Final PEIS/R represents the best available information on recreational use in Reach 1 of the San Joaquin River, and this is clarified in the responses to comments from the Kings River Fisheries Management Program (KRFMP) comment response 1 (KRFMP-1) on page 3.8-453 of the Final PEIS/R and in response to comment KRWA-3 on page 3.8-469 of the Final PEIS/R. Additionally, Mitigation Measure REC-1 would enhance public fishing access on the Kings River below Pine Flat Dam to better accommodate anglers displaced from Reach 1 of the San Joaquin River. As stated in KRFMP-1, specific actions to enhance public fishing access and trout populations would be determined during subsequent site-specific NEPA/CEQA evaluation of Chinook salmon reintroduction, but could include fish habitat enhancement projects in the river, fish stocking, fish population monitoring, hatchery production of catchable trout, public education, and/or public outreach. The concerns expressed were addressed in the Final PEIS/R based on the information currently available. Reclamation is committed to continuing to work to address these concerns as part of the fish reintroduction actions and in coordination with the other Implementing Agencies. No changes to the Final PEIS/R have been made.

2. Concerns related to straying of salmonid species into the Kings River from the San Joaquin River in flood years – KRWA and KRCD express concerns regarding straying of salmonid species into the Kings River from the San Joaquin River in flood years similar to the concerns expressed on the Draft PEIS/R. These concerns were addressed in response to KRFMP-3 on page 3.8-455 and KRWA-1 on page 3.8-469 in the Final PEIS/R. As addressed in the responses to comments, Mendota Dam is considered an existing barrier to upstream fish migration at low flows. The Draft PEIS/R assesses the proposed Mendota Pool Bypass as well as the installation of barriers to prevent straying of salmonid species. This analysis is currently underway as part of the Mendota Pool Bypass and Reach 2B Improvements Project, of which, Reclamation and DWR have had several meetings with KRWA and KRCD to discuss the project alternatives and KRWA and KRCD's concerns. The concerns expressed were addressed in the Final PEIS/R based on the information currently available. Reclamation is committed to continuing to work to address these concerns as part of the design for the Mendota Pool Bypass and Reach 2B Improvements Project. No changes to the Final PEIS/R have been made.

3. Definition of "Third Parties" –KRCD and KRWA expressed concerns related to the definition of "Third Parties". As defined on page 2-27 of the Final PEIS/R, "(t)ypically, the term 'Third Party' refers to groups that are not party to a lawsuit or agreement, but are implicated in the lawsuits or agreements." The section then goes on to give various examples of who Third Parties could include. This list is not all-encompassing and is a representative sample of the types of groups that compromise "Third Parties". When taken in the context of the definition above, Third Parties could be anyone implicated in the Settlement or the Act and could include landowners, governmental agencies, water users, interest groups, or anyone with a "vested interest in implementing the SJRRP." Therefore, both KRWA and KRCD would be Third Parties in this context.

E-mail comments were received from the Dumna (Dumna) Indians. The Dumna's concerns are related to the initial acquisition of tribal lands or rights for the development of the Central Valley Project (CVP). The concerns raised by the Dumna about the acquisition of tribal lands for the CVP is not related to the implementation of the Settlement or the Act. These comments do not lend additional substantive information that would change the analysis of impacts and no changes to the Draft or Final PEIS/R have been made.