

SAN JOAQUIN RIVER
RESTORATION PROGRAM



DRAFT Technical Memorandum

Purpose and Need for Action

October 2007

1 *This Draft Technical Memorandum (TM) was prepared by the San Joaquin River Restoration*
2 *Program Team as a draft document in support of preparing a Program Environmental Impact*
3 *Statement/Report (PEIS/R). The purpose for circulating this document at this time is to facilitate*
4 *early coordination regarding initial concepts and approaches currently under consideration by*
5 *the Program Team with the Settling Parties, the Third Parties, other stakeholders, and interested*
6 *members of the public. As such, the content of this document may not necessarily be included in*
7 *the PEIS/R.*

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9 *This Draft TM does not present findings, decisions, or policy statements of any of the*
10 *Implementing Agencies. Additionally, all information presented in this document is intended to*
11 *be consistent with the Settlement. To the extent inconsistencies exist, the Settlement should be*
12 *the controlling document and the information in this document will be revised prior to its*
13 *inclusion in future reports. While the Program Team is not requesting formal comments on this*
14 *document, all comments received will be considered in refining the concepts and approaches*
15 *described herein to the extent possible. Responses to comments will not be provided and this*
16 *document will not be finalized; however, refinements will likely be reflected in subsequent*
17 *Program documents.*

18 **1.0 Introduction**

19 **1.1 Background**

20 In 1988, a coalition of environmental groups, led by the Natural Resources Defense Council
21 (NRDC), filed a lawsuit challenging the renewal of the long-term water service contracts
22 between the United States and the Central Valley Project, Friant Division contractors. After more
23 than 18 years of litigation of this lawsuit, known as NRDC, et al., v. Kirk Rodgers, et al., a
24 Stipulation of Settlement (Settlement) was reached. On September 13, 2006, the Settling Parties
25 reached agreement on the terms and conditions of the Settlement, which was subsequently
26 approved by the Court on October 23, 2006. The “Settling Parties” include the NRDC, Friant
27 Water Users Authority (FWUA), and the U.S. Departments of the Interior and Commerce.

28 The San Joaquin River Restoration Program (SJRRP) will implement the San Joaquin River
29 litigation Settlement. The “Implementing Agencies” responsible for the management of the
30 SJRRP include the U.S. Department of the Interior, through the Bureau of Reclamation and the
31 Fish and Wildlife Service, U.S. Department of Commerce through the National Marine Fisheries
32 Service, and the State of California through the Department of Water Resources (DWR) and the
33 Department of Fish and Game (DFG). Consistent with the memorandum of understanding
34 between the Settling Parties and the State that was signed the same time as the Settlement, the
35 State, through DFG, DWR, the Resources Agency, and the California Environmental Protection
36 Agency (CalEPA) will play a major, collaborative role in the planning, design, funding, and
37 implementation of the actions called for in the Settlement.

1 A Program Environmental Impact Statement/Environmental Impact Report (PEIS/R) is being
2 prepared in accordance with the National Environmental Policy Act (NEPA) and the California
3 Environmental Quality Act (CEQA). Reclamation is the lead agency for NEPA compliance and
4 DWR is the lead agency for CEQA compliance.

5 The PEIS/R will evaluate alternative approaches to implement the provisions of the Settlement
6 and disclose anticipated regional effects, both beneficial and adverse, that may result from
7 implementation. The PEIS/R will not, however, evaluate alternatives to the Settlement other
8 than the No-Action Alternative. Subsequent site- or action-specific environmental documents
9 will be required before most of the provisions identified in the Settlement and included in the
10 PEIS/R can be implemented.

11 The Settlement identifies several objectives that need to be met to successfully achieve the
12 Goals. The objectives are to:

- 13 • Improve channel capacity, fish habitat, related flood protection, fish passage, and fish
14 screening;
- 15 • Release flows from Friant Dam to create conditions conducive to restoration;
- 16 • Reintroduce spring-run and fall-run Chinook salmon to the San Joaquin River below
17 Friant Dam;
- 18 • Develop and implement a plan to recirculate, recapture, reuse, exchange, or transfer water
19 released for Restoration Flows consistent with certain criteria identified in the Settlement;
- 20 • Create a Recovered Water Account (RWA) that provides an opportunity to make water
21 available to Friant Division long-term contractors with water supply reductions as a direct
22 result of Interim or Restoration Flows; and
- 23 • Employ an adaptive management strategy that determines the best means for effectively
24 and efficiently achieving the goals and objectives of the SJRRP.

25 **1.2 Focus of this Technical Memorandum**

26 This document focuses on the purpose and need for the SJRRP. An EIS must explain the
27 “underlying purpose and need to which the Lead Agency is responding in proposing the
28 alternatives, including the proposed action (40 CFR 1502.13). The statement of purpose and need
29 is important because it explains why the Federal agency is undertaking the proposed action and
30 what objectives it intends to achieve by that action.

31 The purpose and need statement is a brief statement explaining why the action is being
32 considered – the underlying purpose and need to which the agency is responding. This brief
33 statement, provided in the next section, is a critical element that sets the overall direction of the
34 NEPA process and serves as an important screening criterion for identifying, evaluating, and
35 determining which alternatives are reasonable and should be evaluated in detail in the PEIS/R.
36 All reasonable alternatives examined in detail must meet the defined purpose and need.

1 The final section of this TM presents related opportunities to benefit other regional needs during
2 implementation of the SJRRP. The SJRRP provides opportunities to benefit flood protection, San
3 Joaquin River water quality, riparian and wildlife habitat, hydropower, recreation, and
4 educational opportunities. The Implementing Agencies will consider these opportunities while
5 they are defining alternatives to meet the stated purpose and need.

6 **2.0 Purpose and Need for Action**

7 The Settlement is based on two parallel goals, which together comprise the purpose of the
8 SJRRP. The purpose of the SJRRP is to implement the Settlement Agreement by meeting two
9 goals:

- 10 • Restoration Goal - Restore and maintain fish populations in “good condition” in the main
11 stem of the San Joaquin River below Friant Dam to the confluence of the Merced River,
12 including naturally reproducing and self-sustaining populations of salmon and other fish
13 (Restoration Goal); and
- 14 • Water Management Goal - Reduce or avoid adverse water supply impacts to all of the
15 Friant Division long-term contractors that may result from the Interim Flows and
16 Restoration Flows (Water Management Goal).

17 The need for action is three-fold. First, the need for action arises from the historic operation of
18 Friant Dam, which has resulted in significant portions of the main stem of the San Joaquin River
19 between Friant Dam and the confluence of the Merced River being dry during significant
20 portions of the year in most years, with corresponding impacts on fisheries downstream from
21 Friant Dam. Interim and Restoration Flows, in addition to other improvements providing for
22 channel capacity, fish habitat, related flood protection, fish passage, and fish screening, are
23 necessary elements to meet the Restoration Goal. Second, the Interim and Restoration Flows
24 would create a substantial loss in water supplies to Friant Division long-term Contractors. The
25 need for action to develop and implement water management actions is essential to reduce or
26 avoid these adverse water supply impacts, and is equal in significance to the needs of the
27 Restoration Goal. Third, from a legal perspective, the need for action is in response to the
28 Stipulation of Settlement in NRDC, et al., v. Kirk Rodgers, et al., which was approved by the
29 Court in October 2006. Accordingly, the need for action is justified from a biological, water
30 supply, and legal basis.

31 **3.0 Related Opportunities**

32 The SJRRP is being undertaken in locations that have other ecosystem and water resources
33 problems and needs that are not the focus of the SJRRP. These are not included in the statement
34 of purpose and need, but could be addressed in part in combination with SJRRP implementation.
35 Through coordination with stakeholders throughout the SJRRP area, the SJRRP will consider
36 related opportunities in which SJRRP actions could address the following issues.

1 **3.1 Flood Protection**

2 Flood management and protection along the San Joaquin River downstream of Friant Dam to the
3 confluence of the Merced River has presented challenges for many years. The San Joaquin River
4 Flood Control System was designed and is operated to divert San Joaquin River flood flows
5 around reaches 2b, 3 and 4a, which are used to convey flood flows from the Kings River and
6 local drainages. Levee conditions in many portions of reaches 2, 3, and 4 do not meet current
7 design standards and result in seepage at flows below design levels. Numerous seepage
8 problems and levee failures have been recorded during the past two decades along these reaches.
9 Restoration of the San Joaquin River as described in the Settlement will require increasing the
10 flood flow capacity of some reaches of the San Joaquin River to levels greater than current
11 design capacity. Modifying levees to accommodate restoration flows greater than current channel
12 capacity provides an opportunity to address flood protection issues. The SJRRP will coordinate
13 with local flood management agencies through DWR to identify design standards and flood
14 management procedures related to modified levees.

15 **3.2 San Joaquin River Water Quality**

16 Water quality in various segments of the San Joaquin River has been a problem for several
17 decades due to low river flows and discharges from agricultural areas, wildlife refuges, and
18 municipal and industrial treatment plants. Pollutant stressors have been identified in each reach
19 of the San Joaquin River from Mendota Pool to the Delta. Regulatory requirements for water
20 quality in the San Joaquin River have been developed for downstream areas and are under
21 development for upstream areas. Initial locations of concern for water quality include areas near
22 Stockton and at Vernalis, downstream from the Stanislaus River as the San Joaquin River enters
23 the Delta.

24 In 1998, the Central Valley Regional Water Quality Control Board (RWQCB) adopted a Water
25 Quality Control Plan (WQCP) for the Sacramento and San Joaquin River basins (Basin Plan) as
26 the regulatory reference for meeting Federal and State requirements. Specific water quality
27 standards associated with the lower San Joaquin River apply to boron, molybdenum, selenium,
28 dissolved oxygen, pH, pesticides, and salinity, as measured at Vernalis and other locations along
29 the San Joaquin River as it enters the Delta. One of the high priority issues of the Basin Plan
30 review is the regulatory guidance for total maximum daily load (TMDL) standards at locations
31 along the San Joaquin River. Mud and Salt Sloughs, which flow into the San Joaquin River
32 upstream from the Merced River, and the San Joaquin River from Mendota Pool downstream to
33 Vernalis are listed as impaired water bodies.

34 Increasing flows in the San Joaquin River from Friant Dam to the Merced River and downstream
35 reaches has the potential to improve water quality conditions under various hydrologic
36 conditions in some reaches of the river. Opportunities to improve water quality in the San
37 Joaquin River will be identified and evaluated to the extent that they are consistent with actions
38 that address the Restoration and Water Management goals. The SJRRP will coordinate with land
39 owners, irrigation districts, and other relevant entities to identify water quality improvement
40 opportunities associated with implementing the SJRRP.

1 **3.3 Riparian and Wildlife Habitat**

2 More than 90 percent of California’s riparian habitats have been lost due to a variety of human
3 factors. Because many wildlife species are dependent on riparian habitats, there have been
4 related declines in many riparian bird and other animal species. The SJRRP does not specifically
5 provide for enhancing riparian and wildlife habitats, but opportunities to do so, which would
6 simultaneously enhance fisheries, recreation, and water quality, will be evaluated. The presence
7 of several national and state wildlife refuges in the area provide additional opportunities for the
8 SJRRP to improve connectivity between the San Joaquin River and these refuges.

9 **3.4 Hydropower**

10 Hydropower has been an important long-term element of power supply in California. On
11 average, hydropower generation constitutes between 10 to 27 percent of California’s annual
12 energy supply, depending on the type of water year. Due to its ability to rapidly increase and
13 decrease power generation rates, hydropower often has been used to support peak power loads in
14 addition to base power loads. Modifying the flow release from Friant Dam to meet Settlement
15 flows could create opportunities for greater hydropower generation.

16 The SJRRP will consider opportunities for additional hydropower generation capacity consistent
17 with project operations for the Restoration and Water Management goals.

18 **3.5 Recreation**

19 Demands for water-oriented recreational opportunities in the San Joaquin River basin are high
20 and expected to increase in the future. Some of these demands are served by reservoirs on the
21 western slope of the Sierra Nevada Mountains. As population increases in the San Joaquin
22 Valley, demands for water-based and land-based recreation are expected to increase.

23 Settlement flow releases in the San Joaquin River provides opportunities for the development of
24 new and enhanced recreation opportunities on and along the San Joaquin River. The SJRRP will
25 coordinate with other ongoing programs to identify recreation opportunities consistent with the
26 Restoration and Water Management Goals.

27 **3.6 Educational Opportunities**

28 The SJRRP provides a unique opportunity to provide educational opportunities. These
29 opportunities involve research associated with rewatering a major river corridor and the resulting
30 ecosystem changes, as well as providing a model of integrated fisheries restoration and water
31 supply management on a large riverine scale. The SJRRP will consider opportunities for
32 integrating educational initiatives consistent with project operations for the Restoration and
33 Water Management Goals.