1. PURPOSE OF AND NEED FOR ACTION

INTRODUCTION

The Bureau of Reclamation (Reclamation) and the San Joaquin River Group Authority (Authority) are jointly preparing this Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for meeting the flow objectives for the Draft San Joaquin River Agreement (SJRA or Agreement) over the 12-year period 1999-2010. It documents the environmental consequences of acquiring and using flows specified in the Agreement. This chapter describes the purpose of the proposed action or project, why it is needed, and what the project proposes to accomplish (objectives). Also it provides information on the history of the proposed project and the regulatory authority to conduct it.

The Agreement developed as an alternative that provides a level of protection equivalent to the San Joaquin River flow objectives contained in the State Water Resources Control Board's 1995 *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary* (1995 WQCP: SWRCB 1995). Discussion over the flow objectives led to a proactive problem-solving process to develop an adaptive fishery management plan and the water supplies (from willing sellers on the San Joaquin River system) to support that plan. The SJRA includes the Vernalis Adaptive Management Plan (VAMP) and identifies where the water to support the fishery study would be obtained, specifically from the San Joaquin River Group Authority whose members are making the water available.[1] The Agreement is a "performance agreement" (VAMP flows) and a water acquisition program (other flows) wherein Reclamation and the Department of Water Resources pay the Authority to ensure that water supplies are available for instream flows as needed up to prescribed limits.

Reclamation proposes to contract for water on the San Joaquin River and its tributaries under P.L. 102-575, Title 34, Section 3406(b)(3) of the Central Valley Project Improvement Act (CVPIA).

1.1 HISTORY OF PROJECT

On December 15, 1994, the federal government, the State of California, and urban, agricultural and environmental interests reached the principles for agreement on a comprehensive, coordinated package of actions designed to provide interim protection to the San Francisco Bay and Sacramento- San Joaquin River Delta Estuary. That agreement is referred to as the 1994 Bay-Delta Accord (Accord), which was recently extended to December 15, 1998. Many of the coordinated package of actions agreed upon in the Accord were subsequently adopted by the State Water Resources Control Board (SWRCB) in their 1995 Water Quality Control Plan (1995 WQCP) (95-1 WR by SWRCB Resolution No. 95-24).

[1] Members of the San Joaquin River Group Authority (Authority) are: Modesto Irrigation District (MID), Turlock Irrigation District (TID), South San Joaquin Irrigation District (SSJID), San Joaquin River Exchange Contractors Water Authority (Exchange Contractors), Merced Irrigation District (Merced ID), Oakdale Irrigation District (OID), and Friant Water Users Authority. Willing sellers for the proposed action are: MID, TID, SSJID, Exchange Contractors, Merced ID, and OID.

In June 1995, the San Joaquin Tributaries Association (SJTA) filed a lawsuit over the State Board's adoption of the 1995 WQCP. SJTA's complaint asserted that the 1995 WQCP was invalid for several reasons, chief among these was: (1) the lack of adequate scientific review and data necessary to design a flow objective for the San Joaquin River; (2) inadequate capability of the San Joaquin Basin water users to supply these flows without significant social and economic harm; and (3) the dispute over the State Board's authority to require senior water rights holders to supply increased flows while the junior export projects were still allowed to pump significant quantities of San Joaquin flow (SJRTA 1996). In an effort to resolve the issues related to this legal dispute, the Authority proposed, in May 1996, an alternative that provides a level of protection equivalent to the San Joaquin River flow objectives in the 1995 WQCP. This proposed agreement was presented to the State and Federal governments in a document titled "Letter of Intent among Export Interests and San Joaquin River Interests to Resolve San Joaquin River Issues Related to Protection of Bay/Delta Environmental Resources" and became known as the Letter of Intent (LOI). The LOI resulted in an attempt to resolve the San Joaquin River flow objective dispute through a consensus building and problem-solving process.

A "Conceptual Framework for Protection and Experimental Determination of Juvenile Chinook Salmon Survival within the Lower San Joaquin River" (SJRA Appendix A) in response to river flow and State Water Project/Central Valley Project (SWP/CVP) exports was developed by Dr. Bruce Herbold and Dr. Chuck Hanson.[2] From that study framework, a collaborative effort of scientists from state and federal agencies and stakeholder groups developed the VAMP to gather additional scientific fisheries information on the lower San Joaquin River. Based on the San Joaquin River flow and export targets identified in VAMP, a program was developed between the state and federal resource agencies, export interests, environmental community representatives, and San Joaquin River stakeholders. This process culminated in the development of the San Joaquin River Agreement. The VAMP study is joined with the other provisions of the Agreement to provide environmental benefits in the lower San Joaquin River and Delta, at a level of protection equivalent to the 1995 WQCP for the duration of the project.

In 1997, prior to completion of the Agreement, Reclamation initiated a one-year water acquisition on the San Joaquin River to help meet the VAMP target flows. In 1998, water acquisition contracts were completed with willing sellers to ensure that water would be available for the 1998 Spring Pulse Flow. Due to the wet hydrologic condition in April-May 1998, the supplemental water was not required.

1.2 PURPOSE OF AND NEED FOR ACTION

As required under the National Environmental Policy Act of 1969 as amended (NEPA), this section presents a concise statement of the proposed action's purpose and need, followed by a more complete explanation.

1.2.1 Statement of Purpose and Need

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[2] Bruce Herbold, Ph.D.; Ecologist with the U.S. Environmental Protection Agency is a member of DOI's CVPIA's Core Team and b(2) Fish Team. Chuck Hanson, Ph.D., Ecology and Fisheries Biology, is Senior Biologist, Principal, with Hanson Environmental, Inc..

The purpose of the proposed project is to acquire water identified in the SJRA and use the water for:

- a pulse flow for a 31-day period at Vernalis during April and May, and

- other flows identified by the CVPIA water acquisition plan, with concurrence by the Fish and Wildlife Service (Service), to facilitate migration and attraction of anadromous fish, including fall attraction flows and other flows as needed by the adaptive management study, with concurrence by the Service, to support anadromous fish and provide environmental benefits in the project area.

This water is needed to support the VAMP and to provide protective measures for fall-run chinook salmon in the San Joaquin River. The adaptive management study means that the flow requirement is to change annually in response to hydrologic and biologic conditions. As a result, varying amounts of water would be needed. The additional water for other flows would be used for ramping around the pulse flow, to assist in the protection of salmon redds, to assist in control of water temperature, and to assist in improving water quality. Since the water would increase instream flows in the lower San Joaquin River, it also improves compliance with the 1995 WQCP Vernalis objectives and with the Delta Smelt Biological Opinion.

1.2.2 Explanation of Need for Project

The San Francisco Bay/Sacramento-San Joaquin Delta Estuary is a critically important part of California's natural environment and economy. In recognition of the serious environmental problems facing the region and the complex resource management decisions that must be made, the Federal government and the State of California are working together with stakeholders to stabilize, protect, and restore ecological health and improve water management for beneficial uses in and from the Bay/Delta Estuary. The proposed project is needed to help these environmental activities by providing necessary information on what flows are needed in the San Joaquin River system. The results of the adaptive management studies will be evaluated to help determine the appropriate Vernalis flow objective after 2010.

The Authority is working cooperatively with the State and Federal governments to assist in meeting the following needs as explained below: increased instream flows, the 1995 WQCP Vernalis objectives, and the Delta Smelt Biological Opinions (the 1995 Operations Criteria and Plan opinion and the April 26, 1996 opinion on temporary barriers).

Increased Instream Flows

Section 3406(b)(1) of the Central Valley Project Improvement Act (CVPIA) requires the development of a program that will "...make all reasonable efforts to ensure that, by the year 2002, natural production of anadromous fish in Central Valley rivers and streams will be sustainable, on a long-term basis, at levels not less than twice the average levels attained during the period of 1967-1991...." As one element of the Draft Anadromous Fish Restoration Program (AFRP), Reclamation has a need to obtain water on the Stanislaus, Tuolumne, Merced, and Lower San Joaquin rivers to provide additional flows at times that will facilitate migration,

attraction, production, and survival of anadromous fish on these rivers in accordance with specific fish, wildlife, and habitat restoration purposes authorized by the CVPIA.

1995 WQCP Objectives

SWRCB approved the final *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary* in May 1995. The 1995 WQCP includes objectives for Delta outflow, Sacramento and San Joaquin River flows, salinity, dissolved oxygen, and SWP and CVP operations. It presents a combination of Delta inflow and outflow objectives, water quality objectives, and project operation criteria. These requirements are specified temporally and vary depending on the hydrologic condition and the biological needs of various fish species. In accordance with the 1994 Principles for Agreement and the Delta Smelt and Winter-Run Chinook Salmon Biological Opinions, the CVP and SWP are meeting these 1995 WQCP objectives for the Delta. Specifically for the San Joaquin River objectives, the CVP attempts to meet the objectives to the extent possible and consistent with its other obligations.

The flow objectives for the San Joaquin River as measured at Vernalis have been debated in regards to the inadequacy of scientific information relating to salmon smolt survival. In an effort to clarify the scientific basis for the flow objective and resolve the uncertainty, the San Joaquin River and State/Federal export interests (federal and state agencies, irrigation districts, water authorities, and other water interests) collaborated to identify feasible voluntary actions to protect the San Joaquin River's fish resources; help implement the State Board's fishery objectives; and evaluate flow, export pumping, and salmon smolt survival relationships. This collaboration led to a scientifically-based adaptive fishery management plan known now as the VAMP. The Draft San Joaquin River Agreement to implement VAMP provides the basis for the project information here and in Chapter 2. The SJRA provides water to enhance instream flows for anadromous fish and a methodology for establishing flows.

Delta Smelt Biological Opinion

The March 6, 1995 Biological Opinion (Opinion) for Threatened Delta Smelt, Delta Smelt critical habitat, and the proposed Threatened Sacramento Splittail approved Reclamation's operations to provide flows and pursue acquisition of additional water (acquired flow) in order to provide San Joaquin River flows at Vernalis in excess of those exported by the CVP and SWP (USFWS 1995). Any such enhancement flows would be in excess of those attributable to CVP New Melones releases, unregulated accretions, or unstorable flows, and would not be exported at the Delta pumping facilities. As a result of this Opinion, Reclamation has a requirement to acquire water within the San Joaquin River Watershed to maximize the ability of the CVP to meet this commitment.

1.3 PROJECT OBJECTIVES

The proposed project's objective is to use water secured from willing sellers to provide additional instream flows for the San Joaquin River system. The additional instream flows include a 31-day pulse flow during April and May and other fishery-related flows (e.g., October flow) identified by the CVPIA water acquisition program (Section 3406 (b)(3)) and contained in

the SJRA. A description of the proposed stream flow enhancements, or underlying action with specific quantities by willing seller, is provided in Section 2.1, Proposed Action.

Flows for VAMP would be targeted to reach the Vernalis gaging station on the San Joaquin River. The specific objectives of VAMP are: (1) to implement protective measures for San Joaquin River fall-run chinook salmon within the framework of a carefully designed management and study program which is designed to achieve, in conjunction with other non-VAMP measures, a doubling of natural salmon production by improving smolt survival through the Delta; (2) to gather scientific information on the effects of flows in the lower San Joaquin River, CVP and SWP export pumping rates, and operation of a fish control structure at the head of Old River, on the survival and passage of salmon smolts through the Delta; and (3) to provide environmental benefits in the lower San Joaquin River and Delta at a level of protection equivalent to the San Joaquin River portion of the 1995 WQCP for the duration of the Agreement (1999-2010).

The VAMP is also intended to provide benefits through managed and unmanaged flow regimens (underlying action), reduced rates of export during the Spring Pulse Flow Period (related action), and installation of a fish control structure at the head of Old River (related action). All of these actions are expected to contribute to improved conditions aimed at assisting in achieving a doubling of natural production of chinook salmon consistent with the provisions of state and federal law. Some of these actions (exports and barrier operation) are not part of this document's proposed action which is to provide the water to support VAMP and related flows.

The SJRA (1998) contains three flow components.

- It obligates the Authority and its members to provide the amount of water needed to achieve the April–May Target Flow for VAMP or 110,000 acre-feet, whatever is less. Additional water, in excess of the 110,000 acre-feet required to be provided by the Authority members, may be purchased from willing sellers (if available) to meet the Target Flow for VAMP.

- The Agreement provides for Merced Irrigation District to sell 12,500 acre-feet above the existing flow for release to the Merced River during October of all years as attraction flow.

- The Agreement also provides for Oakdale Irrigation District (OID) to sell 15,000 acre-feet in every year of the Agreement plus the difference between the water made available by OID for VAMP pulse flow (11,000 acre-feet) and the amount actually used. The additional water from OID could be used for ramping around the Spring or October pulse flows or at other times to supplement spawning flows or control water temperature on the Stanislaus River. The final decision for the use of this water for fish and wildlife purposes would be made by the Service annually, following consultation with other Federal and State agencies.

The Agreement is a "performance agreement" for the VAMP flows in that Reclamation and the California Department of Water Resources will make annual payments to the Authority so long as Authority members perform under the terms of the Agreement. It is also a water acquisition program for the related flows. An important source of funding will be the CVPIA Restoration Fund. The funds paid to the Authority are intended to be used substantially to enhance efficient water management within the districts including, but not limited to, water reclamation, conservation, conjunctive use, and system improvements.

In addition to the total water available from the Agreement for VAMP (110,000 acre-feet), an additional amount of water would be purchased from Merced ID and OID for release at other times during the year to meet objectives of Public Law 102-575, Title 34, Section 3406(b)(3) of the CVPIA. This section requires that a program be developed and implemented in coordination with and in conformance to the AFRP. The U.S. Department of the Interior is developing a long-term program to address the acquisition of water to sustain long-term fish and wildlife supply needs for the entire Sacramento-San Joaquin Delta watershed. The objectives of the long-term program include securing long-term water supplies to supplement the available CVP yield that was dedicated for fish and wildlife purposed under Section 3406 (b)(2). The San Joaquin River Agreement will be included in the long-term program. Additional amounts of water not specified in the Agreement (and not evaluated here) that are to be included in the long-term program would undergo an independent analysis for NEPA/CEQA compliance.

1.4 AUTHORITY FOR PROJECT

The authority for the proposed project is derived principally from the CVPIA. The CVPIA amended the purposes of the CVP to achieve a reasonable balance among competing demands for use of CVP water for fish and wildlife, agriculture, municipal and industrial, and power contractors.

Section 3406(b)(1) requires the development and implementation of a program (AFRP) that will make all reasonable efforts to ensure that, by the year 2002, natural production of anadromous fish in Central Valley rivers and streams will be sustainable on a long-term basis, at levels that are at least twice the average levels attained during the period 1967-1991. Reclamation will attempt to meet these requirements through habitat and instream flow improvements in the Delta and the San Joaquin River Basin.

Water may be acquired by Reclamation to meet fish and wildlife needs within the San Joaquin Valley under the authority of Section 3406(b)(3) of the CVPIA. Section 3406(b)(3) provides for the acquisition of water from willing sellers on the streams for the following two specific purposes: "... to supplement the quantity of water dedicated to fish and wildlife purposes under Section 3406(b)(2)... and to fulfill the Secretary's obligations under Section 3406(d)(2)...." Water obtained from willing sellers would be used to provide increased instream flows in specific months to improve habitat, in accordance with preliminary information developed by the AFRP. Acquiring water for the proposed action on the Stanislaus, Tuolumne, Merced, and San Joaquin rivers is authorized specifically under this section of the CVPIA.

In addition, the CVPIA "Final Administrative Proposal on the Management of Section 3406(b)(2) Water" (USBR 1997n) identifies supplemental instream flows including a 31-day pulse flow during April and May for VAMP.

1.5 RELATED PROJECTS

This EIS/EIR is one piece of a "puzzle" to manage resources in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay/Delta). Figure 1.5-1 illustrates that this EIS/EIR relates to other major projects and programs in the Bay/Delta region. This EIS/EIR covers a water management program for the San Joaquin River system, and this system is also affected by the other programs. The Agreement water under CVPIA Section 3406 (b)(3) influences the following actions:

- State Water Resources Control Board Bay/Delta Process (SWRCB 95-1) including water rights hearings
- Central Valley Project Improvement Act (especially Section 3406(b)(2))
- Interim South Delta Program (Reclamation and DWR)
- CALFED Bay-Delta Program

Each of these actions is described in Section 4.12, Cumulative Effects.

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