

CHAPTER 1. INTRODUCTION

BACKGROUND

Reliable high-quality water supplies are critical to maintaining California's economic vitality and the quality of life of Californians. Hydrologic conditions in the state range widely – both geographically and from year to year – and environmental demands on existing water supplies have risen in recent years. As a result, the availability and reliability of California's water supply are highly variable, a condition that will likely worsen in the future. The need for innovative water management strategies has never been more urgent.

In recognition of these needs, a consortium of State and Federal resources management agencies collaboratively developed the CALFED Bay-Delta Program to address the imbalance between water supplies and demands and provide for ecosystem restoration and protection. The principal objectives of the CALFED Program are to develop a comprehensive, long-term strategy to provide reliable water supplies to our cities, agriculture, and the environment while restoring the overall health of the San Francisco Bay-Delta Estuary. The CALFED Programmatic Record of Decision (ROD) of August 28, 2000 recommended numerous projects and actions to increase water supply reliability, improve ecosystem health, increase water quality, and improve delta levee stability.

CALFED Guidance for Storage in the Upper San Joaquin River Basin

The ROD describes an approach for reducing the imbalance between water supplies and demands in areas served by water projects that affect the Delta. A series of twelve programs were defined that, in combination, would help attain the overall goals of the CALFED program. One of the programs, water storage, includes five investigations of potential increased surface storage capabilities at various locations in the Central Valley including the Upper San Joaquin River Basin, and groundwater storage through conjunctive management. For the Upper San Joaquin River Basin, the ROD states:

“250-700 [thousand acre-feet (TAF)] of additional storage in the upper San Joaquin watershed... would be designed to contribute to restoration of and improve water quality for the San Joaquin River and facilitate conjunctive water management and water exchanges that improve the quality of water deliveries to urban communities. Additional storage could come from enlargement of Millerton Lake at Friant Dam or a functionally equivalent storage program in the region.”

The ROD plan for action includes the investigation of new surface water storage in the upper San Joaquin River watershed and completion of environmental and planning documentation by mid 2006. Consistent with this direction, the U.S. Bureau of Reclamation, Mid-Pacific Region (Reclamation) and the California Department of Water Resources (DWR) will complete the Upper San Joaquin River Basin Storage Investigation (Investigation). The ROD recommends an enlargement of Millerton Lake ranging from 250 TAF to 700 TAF or the development of a functionally equivalent storage program in the region. The Investigation will evaluate the range of potential accomplishments that would be provided from an enlarged Millerton Lake and will consider options that could be included in a regional storage program to provide functionally equivalent accomplishments.

STUDY AUTHORIZATION

Federal Authorization

The Investigation will address potential modifications or additions to the Central Valley Project (CVP), a Federal water resources project that was authorized in accordance with the Reclamation Act. Authorization for participation in this Investigation by Reclamation derives from the Reclamation Act of 1902, which authorizes the Secretary of the Interior to conduct appraisals of potential water resource opportunities.

State of California Authorization

Section 227 of the State of California Water Code provides authorization for DWR to participate in water resources investigations, as follows:

“The department may investigate any natural situation available for reservoirs or reservoir systems for gathering and distributing flood or other water not under beneficial use in any stream, stream system, lake, or other body of water. The department may ascertain the feasibility of projects for such reservoirs or reservoir systems, the supply of water that may thereby be made available, and the extent and character of the areas that may be thereby irrigated. The department may estimate the cost of such projects.”

PURPOSE AND SCOPE OF REPORT

The Investigation will consist of two phases. Phase 1 will be an appraisal level evaluation that will allow Reclamation to determine if a potentially viable plan appears likely, in which case, a Notice of Intent and Notice of Preparation (NOI/NOP) will be filed to formally initiate environmental review. Phase 2 will include detailed evaluation of project alternatives, preparation of an Environmental Impact Statement (EIS) and an Environmental Impact Report (EIR), and development of a ROD.

The Phase 1 Investigation Report will provide sufficient information to support decisions regarding initiation of Phase 2 studies. This report is an in-progress review document of the Phase 1 Investigation Report through the initial screening of potential surface storage options. Subsequent documents of the Phase 1 Investigation Report will include model simulation results, estimated project costs, and a description of potential benefits.

This in-progress review document is organized as follows:

Chapter 1 provides background on the Investigation.

Chapter 2 describes existing and future without-project conditions.

Chapter 3 identifies problems and opportunities that development of new water storage in the Upper San Joaquin River Basin could address.

Chapter 4 describes the plan formulation approach.

Chapter 5 describes surface storage options considered and initial screening results .

Chapter 6 describes next steps in the Phase 1 Investigation.

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STUDY AREA

The Upper San Joaquin River Basin includes the San Joaquin River and tributaries upstream of its confluence with the Merced River. The study area for the Investigation includes the Eastern portion of the San Joaquin Valley, from the Merced River into the southern limit of the Valley. This area includes the region served by the Friant Division of the CVP and the portion of the San Joaquin River most directly affected by the operation of the Friant Dam. Figure 1-1 shows the locations of major water resources facilities in the San Joaquin Valley.

The area of potential impact from the development of new storage in the Upper San Joaquin River Basin includes the San Joaquin River downstream of Friant Dam, lands with San Joaquin River water rights, the Friant Division service area, and the eastern San Joaquin Valley groundwater basins. These areas comprise the San Joaquin River and the Tulare Lake Regions described in the CALFED ROD and shown in Figure 1-1.

RELATED STUDIES, PROJECTS AND PROGRAMS

This Investigation is proceeding at a time when several studies and related programs are considering water resources problems, needs, and opportunities in the San Joaquin Valley. Many projects are being coordinated through CALFED and member agency management. Some assumptions needed for conducting the Investigation apply to other CALFED storage investigations. The Investigation is being coordinated with other on-going CALFED storage and conjunctive management studies, as well as with other related projects and programs.

One major study under way in the San Joaquin River Basin is the development of a restoration plan for the San Joaquin River below Friant Dam by the Friant Water Users Authority (FWUA) and the Natural Resources Defense Council (NRDC). As part of this work, the FWUA and NRDC have been considering water supply options that could be developed to provide water for restoration needs. Information developed by that effort that is relevant and applicable to the Investigation is being incorporated to the extent possible.

Coordination with other projects and programs will be paramount to assure consistency in relevant assumptions, identify project opportunities, and reduce the potential for duplicate efforts. Other studies and on-going programs in the San Joaquin Valley that are, or may be, addressing some of the issues being considered in this Investigation include:

- CVP Yield Replacement Plan (CVPIA Section 3408(j))
- Westside Integrated Resources Plan
- San Joaquin River Management Program
- San Joaquin River Riparian Habitat Restoration Program
- San Joaquin Basin Action Plan and Grasslands Wildlife Management Area
- San Joaquin River Parkway and Conservation Trust
- San Joaquin River Conservancy
- Central Valley Habitat Joint Venture
- Vernalis Adaptive Management Plan (VAMP)
- Sacramento-San Joaquin River Basins Comprehensive Study
- Reclamation's San Joaquin Valley Drainage Program



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FIGURE 1-1. SAN JOAQUIN VALLEY