

# CHAPTER 1. INTRODUCTION

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Reliable high-quality water supplies are critical to maintaining California's economic vitality and the quality of life of Californians, and hydrologic conditions in the state range widely – both geographically and from year to year. Water supplies needed to meet current and future uses and support ecosystem requirements have risen in recent years.

Recognizing 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 Bay-Delta 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/Sacramento-San Joaquin rivers Delta (Delta). 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.

## **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 programs were defined that, in combination, would help attain the overall goals of the CALFED Bay-Delta 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, as well as efforts to increase 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 investigating new surface water storage in the upper San Joaquin River watershed and completing environmental and planning documentation by mid-2006. Consistent with this direction, the Bureau of Reclamation, Mid-Pacific Region and the California Department of Water Resources (DWR) are conducting the Upper San Joaquin River Basin Storage Investigation (Investigation) as partners. The Investigation will evaluate the range of potential accomplishments that could 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.

## **PURPOSE AND SCOPE OF THIS REPORT**

The purpose of a feasibility study is to conduct necessary technical analyses sufficient to evaluate alternatives and identify a recommended action to address issues identified by a decision-maker. For this feasibility study, the CALFED ROD recommended a study of alternatives for storing water from the upper San Joaquin River basin for multiple uses. Congress provides authorization to Federal agencies to prepare feasibility reports. Generally, the findings of a feasibility study provide the basis for Congressional authorization for project construction.

This feasibility study has been organized into two phases and will be supported with appropriate environmental compliance documentation. Phase 1 of the feasibility study focused on identifying and screening potential water storage options that could be implemented to address Investigation purposes. Phase 2 will further evaluate options retained from Phase 1, formulate and evaluate alternatives, and identify a recommended alternative.

This report describes Phase 1 feasibility study activities and presents the results of initial screening of potential storage options. As the feasibility study continues, Reclamation and DWR will develop project alternatives for consideration and initiate formal environmental compliance processes for preparing an Environmental Impact Statement (EIS), an Environmental Impact Report (EIR), and a ROD.

The purpose of this report is to summarize the range of storage opportunities that the Investigation has examined, present findings, and discuss in greater detail the storage options that will continue to be evaluated in the feasibility study.

This report is organized as follows:

- Chapter 1 provides background on the feasibility study.
- Chapter 2 describes existing and future without-project conditions.
- Chapter 3 identifies problems and opportunities that storage of additional water from the upper San Joaquin River basin could help address.
- Chapter 4 describes the plan formulation, including the evaluation of surface storage options that have been considered.
- Chapter 5 describes the public involvement process that has supported work to date.
- Chapter 6 describes next steps, including primary areas of study in Phase 2 of the feasibility study, and EIS/EIR milestones.
- Chapter 7 lists the preparers of this report.
- Chapter 8 contains references used in the preparation of this report and its appendices.
- Chapter 9 contains a glossary of terms used in this report and its appendices, and defines other terms pertinent to the contents of this report.

## **STUDY AUTHORIZATION**

Federal and State of California authorizations for preparation of this feasibility report are described below.

### **Federal Authorization**

Federal authorization for preparing a feasibility report was provided in PL108-7, Division D, Title II, Section 215, the omnibus appropriations legislation for fiscal year 2003, enacted February 2003. In that bill, Congress authorized the Secretary of Interior to prepare a feasibility study of storage in the upper San Joaquin River basin:

The Secretary of the Interior, in carrying out CALFED-related activities, may undertake feasibility studies for Sites Reservoir, Los Vaqueros Reservoir Enlargement, and Upper San Joaquin Storage projects. These storage studies should be pursued along with ongoing environmental and other projects in a balanced manner.

Reclamation is the Federal agency responsible for preparing the feasibility report.

### **State of California Authorization**

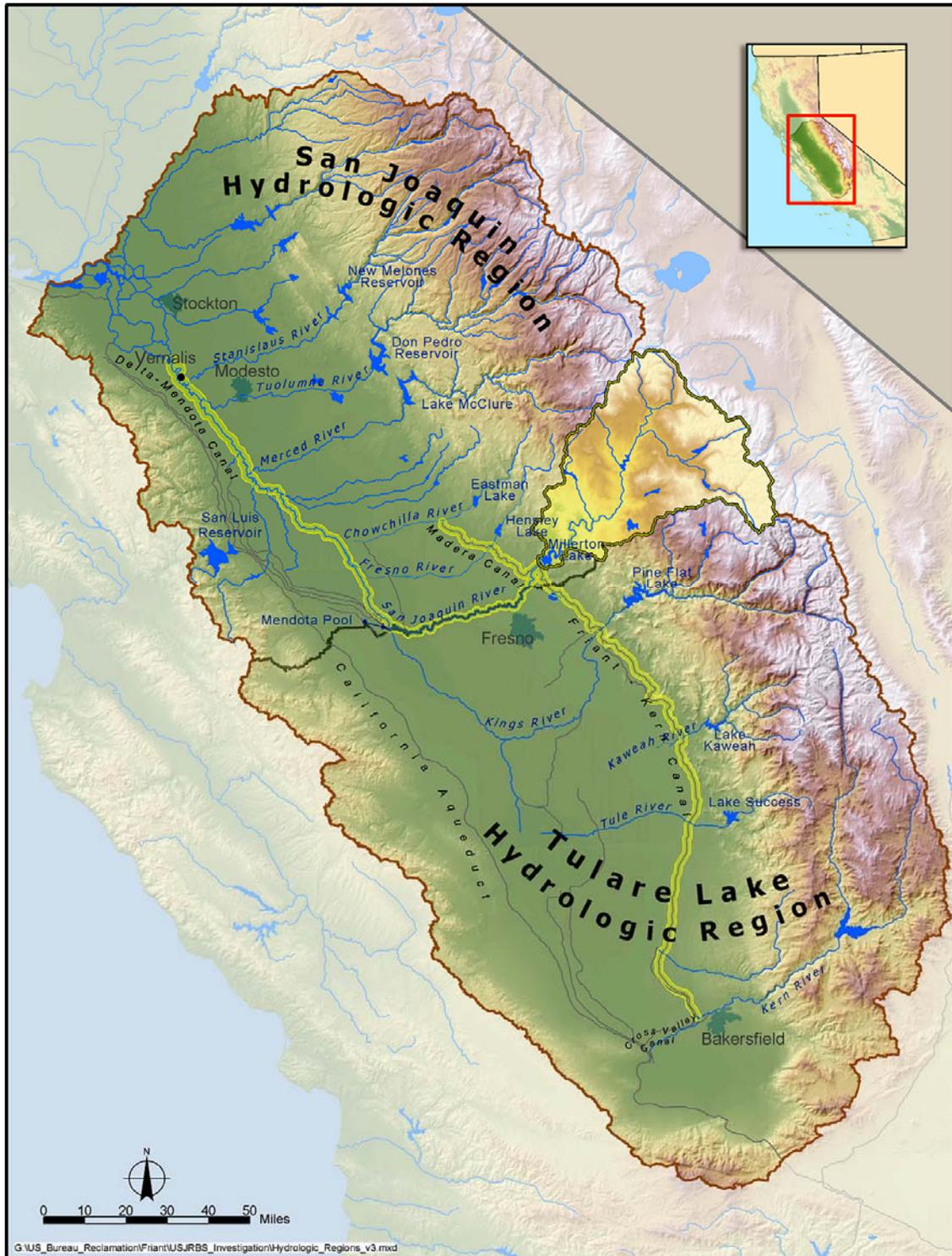
Section 227 of the State of California Water Code provides authorization for DWR to participate in water resources investigations, as follows:

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.

## **STUDY AREA**

As described in the CALFED EIS, the upper San Joaquin River basin includes the San Joaquin River and tributary lands upstream of its confluence with the Merced River. The area of focus for the feasibility study includes the eastern portion of the San Joaquin and Tulare Lake hydrologic regions, from the Merced River into the southern limit of the valley. (see Figure 1-1). This area includes the region served by the Friant Division of the Central Valley Project (CVP) and the portion of the San Joaquin River most directly affected by the operation of Friant Dam.

The area of potential impact from developing 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.



**FIGURE 1-1. STUDY AREA EMPHASIS**

## **RELATED STUDIES, PROJECTS, AND PROGRAMS**

The 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 of these projects are being coordinated through the California Bay-Delta Authority and CALFED member agencies. Many of the assumptions needed for conducting the Investigation apply to other CALFED storage investigations. Accordingly, the Investigation is being coordinated with other ongoing CALFED storage and conjunctive management studies and other related projects and programs.

One major study underway when Phase 1 studies began was an effort to develop 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). This work was intended to contribute to settling litigation between Reclamation and a coalition of environmental organizations led by NRDC regarding the operation of Friant Dam. These collaborative efforts were broken off in 2003 without agreement on a suitable restoration plan or water supply strategy. However, as part of this work, the FWUA and NRDC considered water supply options that could be implemented to provide water for restoration needs. The surface storage options identified by the FWUA/NRDC study were considered and evaluated as part of the Investigation.

Other studies and ongoing programs that are, or may be, addressing some of the issues being considered in the Investigation include the following:

- 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
- Sacramento-San Joaquin River Basins Comprehensive Study
- San Joaquin Valley Drainage Program
- Conjunctive Management Program
- Other CALFED Storage Program studies

As part of the public outreach program, interested stakeholders participated in a series of workshops conducted throughout Phase 1 (see Chapter 5). The workshops provided an opportunity for the study team to meet face to face with representatives from organizations and individuals who are actively involved in many of these programs. The study team also worked closely with CALFED Conjunctive Management Program staff and CALFED program managers to coordinate assumptions and technical work. As the feasibility study proceeds, coordination with other projects and programs will continue.

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