

# CENTRAL VALLEY FLOOD MANAGEMENT PLANNING PROGRAM

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## State Plan of Flood Control Descriptive Document

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Cover Photo:

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Sacramento Weir is part of the  
State Plan of Flood Control.

## This Document Prepared by:

### **Management Review**

Jeremy Arrich  
*DWR*  
*Chief, Central Valley Flood  
Planning Office*

Merritt Rice  
*DWR*  
*Project Manager*

Ward Tabor  
*DWR*  
*Office of Legal Council*

Yung-Hsin Sun  
*MWH*  
*Principal-in-Charge*

### **Preparation Team**

Michele Ng  
*DWR*  
*Central Valley Flood Planning  
Office*

Jim Eto  
*DWR*  
*Central Valley Flood Planning  
Office*

Erin Mullin  
*DWR*  
*Central Valley Flood Planning  
Office*

Bill Mendenhall  
*DWR*  
*Chief, Water Management  
Branch, Northern Region*

Todd Hillaire  
*DWR*  
*Chief, Flood Management  
Section, Northern Region*

Brian Smith  
*DWR*  
*Chief, Statewide Planning Branch,  
South Central Region*

George Qualley  
*DWR*  
*Retired Annuitant*

Don Meixner  
*DWR*  
*Retired Annuitant*

Anna Hegedus  
*DWR*  
*Flood Maintenance Office*

### **GIS Support**

Marill Jacobson  
*DWR*  
*GIS Specialist*

Mark Rabo  
*DWR*  
*Mapping Support*

Julia Delphia  
*DWR*  
*Mapping Support*

### **Technical Support**

Mary Jimenez  
*MWH*  
*Supervising Engineer*

Matthew Holt  
*MWH*  
*Supervising Engineer*

Erica Bishop  
*MWH*  
*Associate Water Resources  
Planner*

Mimi Reyes  
*MWH*  
*Graphical Designer*

Loren Bottorff  
*Consultant*

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# Guide to Report

This report provides an inventory and description of the flood control projects and works (facilities), lands, programs, plans, conditions, and mode of operations and maintenance (O&M) for the State-federal flood protection system in the Sacramento River and San Joaquin River watersheds of California. This flood protection system comprises federally and State-of-California (State) authorized projects for which the Central Valley Flood Protection Board (Board), formerly The Reclamation Board, or the California Department of Water Resources (DWR) of the State, has provided assurances of cooperation to the United States federal government. These Board- or DWR-provided assurances, coupled with State authorization, are an important distinction for what constitutes the State-federal flood protection system<sup>1</sup>. Other flood protection facilities in the Sacramento River and San Joaquin River watersheds that are not covered by assurances to the federal government from the Board or DWR are not part of the State-federal system.

Section 9110(f) of the California Water Code (CWC) defines the SPFC as follows:

*“State Plan of Flood Control” means the state and federal flood control works, lands, programs, plans, policies, conditions, and mode of maintenance and operations of the Sacramento River Flood Control Project described in Section 8350, and of flood control projects in the Sacramento River and San Joaquin River watersheds authorized pursuant to Article 2 (commencing with Section 12648) of Chapter 2 of Part 6 of Division 6 for which the board or the department has provided the assurances of nonfederal cooperation to the United States, and those facilities identified in Section 8361.*

This State Plan of Flood Control (SPFC) Descriptive Document is the first inventory of the SPFC that has been compiled or referenced in a single report. Until now, much of the information on the SPFC has been individually maintained for each of the many flood protection projects that constitute State-federal flood protection along the Sacramento and San Joaquin



The Sacramento Weir provided flood protection for the City of Sacramento in 1995

ivers, tributaries, and distributaries. For example, much of the information contained in sections of this report originates in 118 individual project (unit-specific) O&M manuals. The O&M manuals provide key information about each project and how it should be operated and maintained (see reference digital versatile disc (DVD) at the back of this report).

In addition, since the individual projects for the system were implemented over almost a century, some information may have been lost or never obtained. In those cases, gaps exist in the information presented in this report and further research is required.

It is important to note that the SPFC is only a portion of the larger system that provides flood protection for the Central Valley. The SPFC relies on many other features that do not meet the definition of the SPFC. For example, non-SPFC reservoirs provide substantial regulation of flows that in turn reduces loading on public and private nonfederal levees, SPFC facilities, locally operated drainage systems, and other facilities work in conjunction with SPFC facilities. Management practices such as emergency response, floodplain management, and other practices are critical to successful operation of the flood protection system. All parts of the system, including the SPFC, depend on other parts of the system to operate as a unit.

<sup>1</sup>SPFC facilities also include other features identified in Section 8361 of the CWC.

## OVERVIEW OF SPFC

### Project Works (facilities)

- Approximately 1,600 miles of levees
- Five major weirs spilling floodwaters from the Sacramento River to bypass channels
- Four dams
- Two flood relief structures and one natural overflow area from the Sacramento River into the Butte Basin
- Five control structures directing flow in bypass channels along the San Joaquin River
- Seven major pumping plants
- Channels
- Bypasses and sediment basins
- Environmental mitigation areas
- Associated facilities, such as bank protection, stream gages, and drainage facilities

### Lands

- Fee title, easements, and land use agreements
- Approximately 18,000 parcels

### Operations and Maintenance

- Two standard operations and maintenance (O&M) manuals
- 118 unit-specific O&M manuals
- Maintenance by State and Local Maintaining Agencies (LMA)

### Conditions (terms)

- Assurances of Cooperation (as specified in Memorandums of Agreement (MOU), the CWC, and agreements)
- Flood Control Regulations, Section 208.10, 33 Code of Federal Regulations
- Requirements of standard and unit-specific O&M manuals
- Design profiles (1955 and 1957)

### Programs and Plans

- Historical documents and processes
- As-constructed drawings
- Oversight and management
- Ongoing programs and plans

This report is structured as a reference document for the SPFC. It includes narrative descriptions, tables, and figures, especially maps, to help the reader find information for this complex flood protection system. Some sections include summary portions for readers who only need an overview of the subject. Figure G-1 shows a geographic overview of the SPFC facilities. This document is organized in the following sections:

1. **Introduction.** Provides overview information about why this reference document has been prepared.
2. **Existing Projects.** Presents the federal and State authorizations and the assurances of co-operation for each of the projects included in the SPFC.
3. **SPFC Facilities.** Describes SPFC project works, or facilities, located along the various reaches of the Sacramento and San Joaquin rivers and their tributaries and distributaries. This description of the functional layout of the system follows the flow path of floodwaters. It is intended to complement the information contained in the many unit-specific O&M manuals.
4. **SPFC Lands.** Describes property rights held for the SPFC.
5. **SPFC Operations and Maintenance.** Describes the O&M responsibilities and activities that maintaining agencies have and implement. Maintaining agencies primarily include DWR and LMAs (levee districts, reclamation districts, cities, counties, and other public agencies and municipalities).

6. **SPFC Conditions.** Describes conditions (terms) to which the State has agreed for long-term O&M of the SPFC facilities.
7. **Programs and Plans Related to the SPFC.** Describes existing programs and plans that support the SPFC, and ongoing evaluations and processes that will affect the SPFC in the future.
8. **SPFC Updates.** Describes how this document will be updated. While much of the information contained in this report is not expected to change, report updates or supplements will be necessary to keep the description of the SPFC current as new projects are planned and added to the SPFC, and as other changes occur.
9. **Observations.** Contains observations about the material encountered during work on this document. While material pertaining to the SPFC was being compiled, the DWR planning team observed that additional work or research may be warranted to fill noted data gaps, that information may need to be managed differently than under current conditions, or may provide the basis for future SPFC updates.
10. **Acronyms and Abbreviations.** Provides list of acronyms and abbreviations used in this SPFC Descriptive Document.
11. **References.** Contains a list of references used to compile this SPFC Descriptive Document.

Because of the voluminous material available to describe the SPFC, a DVD located in the pocket at the back of the report includes important base information and reference material. The DVD includes O&M manuals, an O&M Map Book, data tables, design water surface profiles, and other supporting documents.

Please visit the Central Valley Flood Management Planning Program Web site (<http://www.water.ca.gov/cvfmp/documents.cfm>) to view comments on earlier drafts of this report and responses.

The screenshot shows the website for the Central Valley Flood Management Planning Program. At the top, there is a search bar and navigation links for 'Home', 'Newsroom', 'Flood & Safety', 'Planning', 'State Water Project', 'Funding', 'Environment', 'Supply & Use', and 'Data'. The main heading is 'Central Valley Flood Management Planning (CVFMP) Program'. Below this, there is a sidebar with 'About the Program' links and a main content area listing various documents and publications with their dates and file sizes. The footer includes contact information for the Department of Water Resources and the FloodSAFE California logo.

Central Valley Flood Management Planning Program Web site  
(<http://www.water.ca.gov/cvfmp/documents.cfm>)  
October 30, 2010

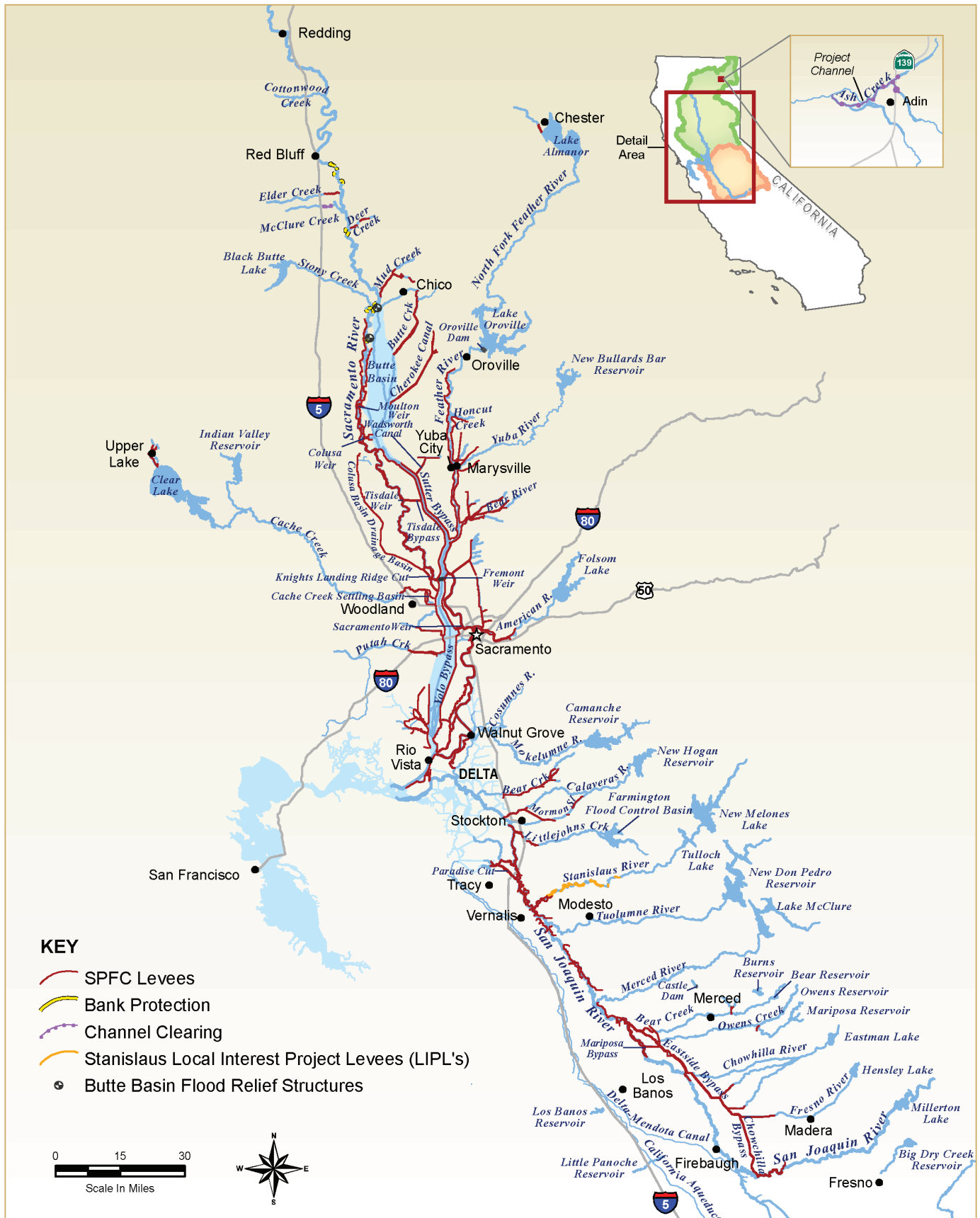


Figure G-1. Geographic Overview of the State Plan of Flood Control



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## Attachments

Attachment A – State Plan of Flood Control Index and Location Maps

Attachment B – State Plan of Flood Control Reference DVD

1. *State Plan of Flood Control Descriptive Document*.
2. Federal authorizations and supporting Chief of Engineers reports.
3. *1953 Memorandum of Understanding* (USACE and The Reclamation Board, 1953) and Supplements.
4. O&M manuals (standard and unit-specific).
5. O&M manual map book.
6. O&M tables (summary of facilities and ancillary features).
7. Project agreements
8. *Draft Technical Memorandum, Historical Reference Document for the State Plan of Flood Control* (DWR, 2009a).
9. *Cache Creek Basin California, Middle Creek Project, Stream Profiles* (USACE, 1957b).
10. *Sacramento River Flood Control Project, California, Levee and Channel Profiles* (USACE, 1957a) also known as 1957 Revised Profile Drawings.
11. *San Joaquin River and Tributaries Project, California, Levee Profiles* (USACE, 1955) also known as 1955 Profile.
12. *Mormon Slough Project, San Joaquin County, Plan of Improvement, Profile and Flood Plane* (USACE, 1965).
13. *Sacramento River Flood Control System, Project Design Flows* (form letter from A. Gomez to The Reclamation Board) (USACE, 1969).
14. 2006 letter from USACE to The Reclamation Board regarding allowable vegetation within floodways (USACE, 2006).

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