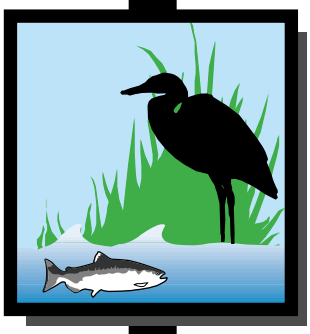
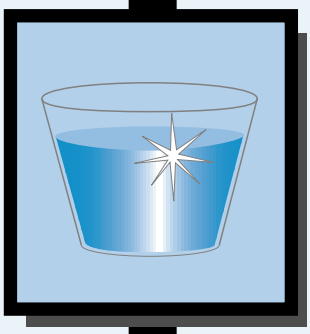
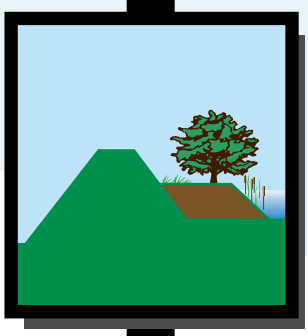










CALFED
BAY-DELTA
PROGRAM

Final Programmatic Environmental Impact Statement/Environmental Impact Report

July 2000

Final Environmental Impact Statement/Environmental Impact Report
CALFED Bay-Delta Program

Prepared by the CALFED Bay-Delta Program for the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, National Marine Fisheries Service, U.S. Environmental Protection Agency, Natural Resources Conservation Service, U.S. Army Corps of Engineers, and California Resources Agency

This Final Programmatic Environmental Impact Statement/Environmental Impact Report (Final Programmatic EIS/EIR) is prepared in compliance with the National Environmental Policy Act (NEPA), the U.S. Bureau of Reclamation (Reclamation) policy and procedures for implementing NEPA, and the California Environmental Quality Act (CEQA).

The CALFED Bay-Delta Program (Program) is a cooperative effort of 18 state and federal agencies with regulatory and management responsibilities in the San Francisco Bay/San Joaquin River Bay-Delta to develop a long-term plan to restore ecosystem health and improve water management for beneficial uses of the Bay-Delta system. The objective of this collaborative planning process is to identify comprehensive solutions to the problems of ecosystem quality, water supply reliability, water quality, and Delta levee and channel integrity.

Additional Information

For further information, please contact:

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Each of the four alternatives, including the Preferred Program Alternative, includes Ecosystem Restoration, Water Quality, Levee System Integrity, Water Use Efficiency, Water Transfer, Watershed, Storage, and Conveyance elements. Because the problems addressed by the Program and the solution are closely interrelated, the descriptions of each of the Program elements, except for the Conveyance element, do not vary among alternatives. This is a programmatic-level document to select a long-term plan. The document focuses on the interrelated long-term and cumulative consequences of each of the alternatives. Implementation of the long-term plan will follow the approval of this Final Programmatic EIS/EIR, and subsequent environmental review for project-specific aspects of the Program will be required.

The Program issued a Draft Programmatic EIS/EIR in June 1999. Public comments were received from June 25, 1999, to September 23, 1999. Responses to public comments can be found in the Response to Comments Document - Volumes I, II, and III.

Preface

The CALFED Bay-Delta Program (Program) includes a series of proposed actions that will take place in stages over time and a decision-making process for moving forward through the next phase of the Program. This preface describes the relationships between:

- The Preferred Program Alternative evaluated in this document, potential near-term actions, and a long-term implementation strategy.
- This document and the program plans, which together constitute the Final Programmatic Environmental Impact Statement/Environmental Impact Report (EIS/EIR).
- The programmatic impact analysis in this document and project-specific impact analyses associated with future proposed actions.

Preferred Program Alternative and Proposed Actions

The Preferred Program Alternative consists of programmatic actions that set the long-term, overall direction of the Program. However, detail at a greater level of specificity than is available in the programmatic description of the Preferred Program Alternative is important to understanding how this large, complex program may be implemented, funded, and governed in the future. Accordingly, the CALFED agencies have described proposed actions for the first years following a Record of Decision/ Certification of the Final Programmatic EIS/EIR, as well as set out a long-term implementation strategy.

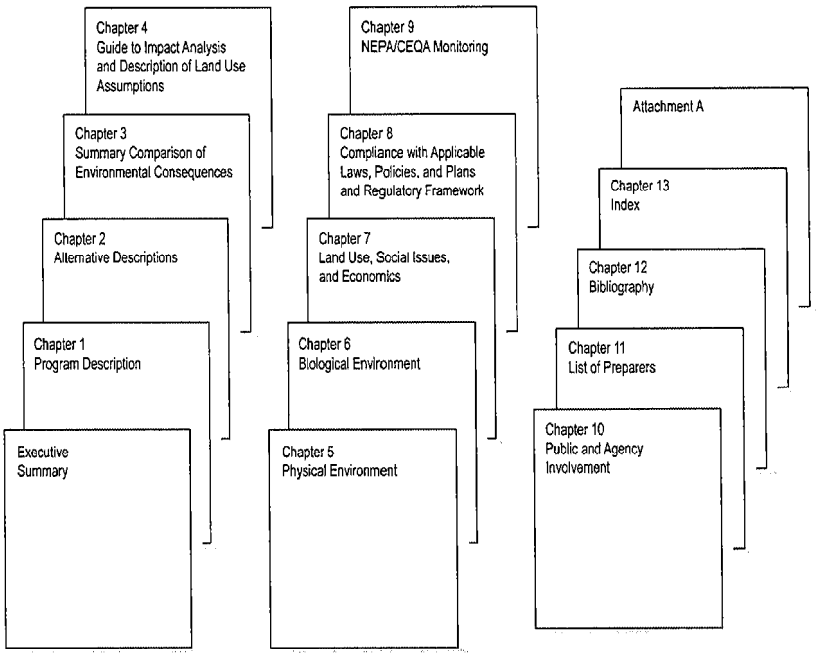
The potential near-term actions and long-term implementation strategy are presented in the Implementation Plan and the Phase II Report. The proposed near-term actions and long-term implementation strategy share two characteristics: they are designed to achieve multiple benefits by emphasizing actions that serve several purposes, and they will be implemented in ways that increase knowledge so that the CALFED agencies can adapt subsequent actions to increase their effectiveness. As appropriate, the near- and long-term actions will be subject to subsequent alternative analysis, environmental review, and permitting decisions before they are implemented.

Contents of the Final Programmatic EIS/EIR

The Final Programmatic EIS/EIR includes the impact analysis document and the program plans.



Impact Analysis Document. The impact analysis document contains the required programmatic environmental document elements, including an Executive Summary. The illustration below depicts those elements.



Program Plans. The Phase II Report contains a general summary of the program plans. More fundamentally, the report also describes the Program process, the fundamental Program concepts that have guided their development, and analyses that have contributed to Program development. Further, this report describes how this large, complex program may be implemented, funded, and governed in the future.

The following plans outline Program actions:

- Ecosystem Restoration Program Plan (Volumes 1, 2, and 3)
- Water Quality Program Plan
- Water Use Efficiency Program Plan
- Water Transfer Program Plan
- Levee System Integrity Program Plan
- Watershed Program Plan

These plans include a description of programmatic plans and actions that are evaluated in this impact analysis document as well as more specific actions that will be subject, as appropriate, to subsequent environmental review.

The remaining program plans include the:

- Implementation Plan
- Multi-Species Conservation Strategy (MSCS)
- Comprehensive Monitoring, Assessment, and Research Program (CMARP)

The Implementation Plan describes the proposed schedule and process for implementing near-term actions in the context of the overall implementation approach, including financial and assurance strategies. The MSCS describes a comprehensive species and habitat conservation program that builds on the Ecosystem Restoration Program to provide a framework for compliance with endangered species laws. The CMARP describes the information generated from monitoring, assessment, and research that will be used to (1) assess the effectiveness of existing actions, (2) guide additional research, and (3) modify the actions of each of the Program elements in order to improve the Program's ability to meet its goals and objectives.

Programmatic Impact Analysis

The Program currently consists of multiple actions that are diverse, geographically dispersed, and to be carried out over many years. Consequently, the Program will be implemented in stages, using the information gained by adaptive management to modify and refine Program actions over time, within the framework of the Preferred Program Alternative. Given the uncertainties, the large scope of the Program area, and the conceptual nature of the proposed actions, the CALFED agencies elected to prepare a Programmatic EIS/EIR.

This document provides a broad overview of the Program and the CALFED agencies' vision of their highest priority actions to pursue. It describes, in a broad sense, the environmental consequences of proposed actions and enables decisions to be made regarding Program direction and content. Information from this document will be incorporated by reference into subsequent tiered environmental documents for specific projects. This level of analysis is consistent with the guidance for programmatic documents provided by the Council on Environmental Quality's Regulations for implementing the National Environmental Policy Act (NEPA) and by the State California Environmental Quality Act (CEQA) Guidelines.

The Preferred Program Alternative will not, in itself, enact any changes in law, regulation, or policy nor allow project construction. Instead, the Preferred Program Alternative describes programmatic actions that set the long-term, overall direction of the Program. Any subsequent actions or facility construction stemming from the programmatic actions in the Preferred Program Alternative must be developed in compliance with NEPA, CEQA, and other applicable laws and regulatory processes.

Table of Contents

1 Program Description 1-1

2 Alternative Descriptions 2-1

3 Summary Comparison of Environmental Consequences 3-1

4 Guide to Impact Analysis and Description of Land Use Assumptions 4-1

5 PHYSICAL ENVIRONMENT 5-1

5.1 Water Supply and Water Management 5.3-1

5.2 Bay-Delta Hydrodynamics and Riverine Hydraulics 5.1-1

5.3 Water Quality 5.2-1

5.4 Groundwater Resources 5.4-1

5.5 Geology and Soils 5.5-1

5.6 Noise 5.6.1

5.7 Transportation 5.7-1

5.8 Air Quality 5.8-1



6 BIOLOGICAL ENVIRONMENT

6.1 Fisheries and Aquatic Ecosystems 6.1-1



6.2 Vegetation and Wildlife 6.2-1



7 LAND USE, SOCIAL ISSUES, AND ECONOMICS

7.1 Agricultural Land and Water Use 7.1-1



7.2 Agricultural Economics 7.2-1



7.3 Agricultural Social Issues 7.3-1



7.4 Urban Land Use 7.4-1



7.5 Urban Water Supply Economics 7.5-1



7.6 Utilities and Public Services 7.6-1



7.7 Recreation Resources 7.7-1



7.8 Flood Control 7.8-1



7.9 Power Production and Energy 7.9-1



7.10 Regional Economics 7.10-1



7.11 Cultural Resources 7.11-1



7.12 Public Health and Environmental Hazards 7.12-1



7. 13 Visual Resources 7.13-1



7.14 Environmental Justice 7.14-1



7.15 Indian Trust Assets 7.15-1



8 Compliance with Applicable Laws, Policies, and Plans and Regulatory Framework 8-1



9 NEPA/CEQA Monitoring 9-1



10 Public and Agency Involvement 10-1



11 List of Preparers 11-1



12 Bibliography 12-1



13 Index 13-1



Attachments

Attachment A. Information about the No Action Alternative; Modeling Assumptions for Existing Conditions, the No Action Alternative, and the Program Alternatives; and Actions That May Contribute to Cumulative Impacts A-1



Program Plans

Phase II Report
Implementation Plan
Ecosystem Restoration Program Plan:
- Volume 1: Ecological Attributes of the San Francisco Bay-Delta Watershed
- Volume 2: Ecological Management Zone Visions
- Volume 3: Strategic Plan for Ecosystem Restoration

Levee System Integrity Program Plan
Water Quality Program Plan
Water Use Efficiency Program Plan
Water Transfer Program Plan
Watershed Program Plan
Multi-Species Conservation Strategy
Comprehensive Monitoring, Assessment, and Research Program

LIST OF TABLES

Table		Page
3-1	Summary Comparison of Environmental Consequences	3-8
3-2	Summary of Beneficial Impacts Associated with the Preferred Program Alternative	3-21
3-3	Summary of Potentially Significant Adverse Avoidable and Unavoidable Impacts Associated with the Preferred Program Alternative	3-23
3-4	Summary of Economic and Social Effects of the Preferred Program Alternative	3-3
3-5	Summary of Short- and Long-Term Associated Relationships with the Preferred Program Alternative	3-25
3-6	Summary of Irreversible and Irretrievable Commitments of Resources Associated with the Preferred Program Alternative	3-26
3-7	Summary of Potentially Significant Adverse Cumulative Impacts	3-27
4-1	Resource Categories Evaluated in the Final Programmatic EIS/EIR	4-2
4-2	Estimate of Land Area Affected by the Ecosystem Restoration Program (in acres)	4-10
4-3	Estimates of Land Area Affected by Storage and Conveyance (in acres)	4-13
4-4	Estimates of Important Farmland Potentially Converted by Program Elements (in acres)	4-15
5.1-1	Delta Water Supply and Water Management under Existing Conditions	5.1-5
5.1-2	Summary of Modeling Assumptions	5.1-22
5.1-3	Estimated Ecosystem Restoration Water Acquisitions in the Sacramento River and San Joaquin River Regions Without New Storage under Alternative 1 (TAF)	5.1-40
5.1-4	Estimated Ecosystem Restoration Water Acquisitions in the Sacramento River and San Joaquin River Regions with New Storage under Alternative 1 (TAF)	5.1-41
5.1-5	Estimated Ecosystem Restoration Water Acquisitions in the Sacramento River and San Joaquin River Regions Without New Storage under Alternative 2 (TAF)	5.1-46
5.1-6	Estimated Ecosystem Restoration Water Acquisitions in the Sacramento River and San Joaquin River Regions with New Storage under Alternative 2 (TAF)	5.1-47
5.1-7	Estimated Ecosystem Restoration Water Acquisitions in the Sacramento River and San Joaquin River Regions Without New Storage under Alternative 3 (TAF)	5.1-53
5.1-8	Estimated Ecosystem Restoration Water Acquisitions in the Sacramento River and San Joaquin River Regions with New Storage under Alternative 3 (TAF)	5.1-53
5.1-9	Banks and Tracy Exports under All Program Alternatives for the Long-Term Period (TAF)	5.1-56
5.1-10	Banks and Tracy Exports under All Program Alternatives for Dry and Critical Years (TAF)	5.1-57
5.1-11	Delta Outflow under All Program Alternatives for the Long-Term Period (TAF)	5.1-58
5.1-12	Delta Outflow under All Program Alternatives for Dry and Critical Years (TAF)	5.1-58
5.1-13	Estimated Ecosystem Restoration Water Acquisitions in the Sacramento River and San Joaquin River Regions with New Storage under the Preferred Program Alternative (TAF)	5.1-60
5.1-14	Estimated Ecosystem Restoration Water Acquisitions in the Sacramento River and San Joaquin River Regions Without New Storage under the Preferred Program Alternative (TAF)	5.1-61
5.1-15	Delta Deliveries under All Program Alternatives for the Long-Term Period (TAF)	5.1-62
5.1-16	Delta Deliveries under All Program Alternatives for Dry and Critical Years (TAF)	5.1-62

Table Page

5.2-1 Range of Existing Hydraulic Conditions at Selected Stations in the Sacramento River Region for February and September 5.2-8

5.2-2 Range of Existing Hydraulic Conditions at Selected Stations in the San Joaquin River Region for February and August 5.2-10

5.2-3 Sacramento River Flow at Rio Vista under all Program Alternatives for the Long-Term Period 5.2-42

5.2-4 Sacramento River Flow at Rio Vista under all Program Alternatives for Dry and Critical Years 5.2-42

5.2-5 QWEST Flow under all Program Alternatives for the Long-Term Period 5.2-43

5.2-6 QWEST Flow under all Program Alternatives for Dry and Critical Years 5.2-43

5.2-7 Mass Tracking Results for High Inflow and High Export Conditions under all Program Alternatives 5.2-47

5.2-8 Mass Tracking Results for Low Inflow and High Export Conditions under all Program Alternatives 5.2-47

5.2-9 X2 Position under all Program Alternatives for the Long-Term Period 5.2-48

5.2-10 X2 Position under all Program Alternatives for Dry and Critical Years 5.2-48

5.3-1 Water Quality Parameters of Concern to Beneficial Uses 5.3-10

5.3-2 Mean Concentration of Constituents 5.3-12

5.3-3a Predicted Salinity Changes Between the No Action Alternative and Existing Conditions for All Water-Year Types ..... Follows 5.3-21

5.3-3b Predicted Salinity Changes Between the No Action Alternative and Existing Conditions for Dry and Critical Years ..... Follows 5.3-21

5.3-4a Predicted Salinity Changes Between the Preferred Program Alternative and the No Action Alternative for All Water-Year Types ..... Follows 5.3-32

5.3-4b Predicted Salinity Changes Between the Preferred Program Alternative and the No Action Alternative for Dry and Critical Years ..... Follows 5.3-32

5.3-5a Predicted Salinity Changes Between Alternative 1 and the No Action Alternative for All Water-Year Types ..... Follows 5.3-35

5.3-5b Predicted Salinity Changes Between Alternative 1 and the No Action Alternative for Dry and Critical Years ..... Follows 5.3-35

5.3-6a Predicted Salinity Changes Between Alternative 2 and the No Action Alternative for All Water-Year Types ..... Follows 5.3-40

5.3-6b Predicted Salinity Changes Between Alternative 2 and the No Action Alternative for Dry and Critical Years ..... Follows 5.3-40

5.3-7a Predicted Salinity Changes Between Alternative 3 and the No Action Alternative for All Water-Year Types ..... Follows 5.3-43

5.3-7b Predicted Salinity Changes Between Alternative 3 and the No Action Alternative for Dry and Critical Years ..... Follows 5.3-43

5.3-8a Predicted Salinity Changes Between the Preferred Program Alternative and Existing Conditions for All Water-Year Types ..... Follows 5.3-48

5.3-8b Predicted Salinity Changes Between the Preferred Program Alternative and Existing Conditions for Dry and Critical Years ..... Follows 5.3-48

Table		Page
5.3-9a	Predicted Salinity Changes Between Alternative 1 and Existing Conditions for All Water-Year Types	Follows 5.3-48
5.3-9b	Predicted Salinity Changes Between Alternative 1 and Existing Conditions for Dry and Critical Years	Follows 5.3-48
5.3-10a	Predicted Salinity Changes Between Alternative 2 and Existing Conditions for All Water-Year Types	Follows 5.3-52
5.3-10b	Predicted Salinity Changes Between Alternative 2 and Existing Conditions for Dry and Critical Years	Follows 5.3-52
5.3-11a	Predicted Salinity Changes Between Alternative 3 and the No Action Alternative for All Water-Year Types	Follows 5.3-52
5.3-11b	Predicted Salinity Changes Between Alternative 3 and the No Action Alternative for Dry and Critical Years	Follows 5.3-52
5.6-1	Relationship Between Population Density and Average Day-Night Noise Levels	5.6-3
5.8-1	Ambient Air Quality Standards	5.8-4
7.1-1	Important Farmland in the Central Valley	7.1-5
7.1-2	Irrigated Acres and Production Value in All Program Regions, 1986 to 1995	7.1-6
7.1-3	Agricultural Water Use and Water Pricing in All Program Regions, 1985 to 1990	7.1-6
7.1-4	Substitutions of Groundwater for Surface Water in Portions of the Central Valley Due to a Decrease in Surface Water Delivery	7.1-14
7.2-1	Number of Farms, Farm Sizes, and Farm Ownership in All Regions, 1987 and 1992	7.2-4
7.2-2	Farm Income and Production Expense in All Regions, 1987 and 1992	7.2-4
7.2-3	Major Crops in the Delta Region and Corresponding Threshold Salinity Level	7.2-9
7.3-1	Program Regions and Groupings of Counties	7.3-3
7.3-2	Existing Conditions: Regional Demographics and Economic Indicators of Social Well Being	7.3-4
7.3-3	Poverty Rate in California by Ethnicity	7.3-4
7.3-4	Unemployment Rate in California by Ethnicity	7.3-4
7.3-5	Ethnicity by Program Region	7.3-5
7.3-6	Racial Distribution of Farm Workers by Program Region	7.3-6
7.5-1	Characteristics of Some Delta Region M&I Providers	7.5-5
7.5-2	Per Capita per Day Water Use, Bay Region, 1968 to 1990 (gallons)	7.5-7
7.5-3	M&I Water Delivered to the Bay Region by the SWP and CVP, 1990 to 1994 (in acre-feet)	7.5-8
7.5-4	Characteristics of Some Bay Region Providers	7.5-8
7.5-5	Per Capita per Day Water Use in the Sacramento River Region, 1968 to 1990 (gallons)	7.5-9
7.5-6	M&I Water Delivered to the Sacramento River Region by the SWP and CVP (in acre-feet)	7.5-10
7.5-7	Characteristics of Some Sacramento River Region Providers	7.5-10
7.5-8	Per Capita per Day Water Use, San Joaquin River Region, 1968 to 1990 (gallons)	7.5-11

Table | Page

7.5-9 M&I Water Delivered to the San Joaquin River Region by the SWP and CVP, 1990 to 1994 (in acre-feet) 7.5-12

7.5-10 Characteristics of Some San Joaquin River Region Providers 7.5-12

7.5-11 Per Capita per Day Water Use, Other SWP and CVP Service Areas, 1968 to 1990 (gallons) 7.5-13

7.5-12 M&I Water Delivered to the Central Coast and South of Kern County by the SWP, 1990 to 1993 (in acre-feet) 7.5-13

7.5-13 Characteristics of Some Providers in the Other SWP and CVP Service Areas 7.5-14

7.5-14 Increase in Average Water Deliveries to Urban Water Users by Water Management Criteria, Storage, and Allocation Scenario for Program Alternatives and Two Urban Regions, Compared to the No Action Alternative (TAF) 7.5-17

7.5-15 Change and Percent Change in Conductivity of Water for Four Alternatives in Comparison to the No Action Alternative for All Water-Year Types and Dry and Critical Years, at Select Locations 7.5-19

7.5-16 Reuse and Urban Conservation in Bulletin 160-98, the No Action Alternative, and the Water Use Efficiency Program (TAF) 7.5-21

7.5-17 Characteristics of M&I Providers by Program Region under Existing Conditions and the No Action Alternative 7.5-21

7.5-18 Results of Least-Cost Analysis of Program Alternatives for the Bay Region ..... Follows 7.5-33

7.5-19 Results of Least-Cost Analysis of Program Alternatives for the South Coast Region ..... Follows 7.5-33

7.6-1 M&I Water Delivered to the San Joaquin River Region from the Delta, 1990 to 1994 ..... 7.6-5

7.6-2 Characteristics of Some San Joaquin River Region Providers 7.6-6

7.6-3 M&I Water Delivered to the Central Coast and South of Kern County from the Delta, 1990 to 1993 (in acre-feet) 7.6-7

7.6-4 Characteristics of Some Providers in the Other SWP and CVP Service Areas 7.6-8

7.6-5 Per Capita per Day Water Use for the Other SWP and CVP Service Areas, 1968 to 1990 (gallons) 7.6-8

7.8-1 Historical Floods in the Sacramento-San Joaquin Delta, 1900 to 1982 ..... 7.8-7

7.8-2 Delta Region Existing and Future Values of Potentially Affected Resources for the No Action Alternative 7.8-18

7.9-1 Comparison of Potential Change in CVP Power Production and Energy Conditions to the No Action Alternative 7.9-13

7.9-2 Comparison of Potential Change in SWP Power Production and Energy Conditions to the No Action Alternative 7.9-14

7.9-3 Comparison of Potential Change in Air Quality Conditions to the No Action Alternative 7.9-14

7.10-1 Regional Economic Levels under Existing Conditions, 1992 Dollars 7.10-3

7.10-2 Regional Economic Levels under the No Action Alternative, 2020, 1992 Dollars 7.10-10

7.11-1 Distribution of Prehistoric Site Types by Landform Type in the Delta Region 7.11-4

7.14-1 Percentage of Project Area Population below Poverty Level (by Region) 7.14-3

7.15-1 Indian Lands in the CALFED Study Area 7.15-3

LIST OF FIGURES

Figure		Page
1-1	Location of the Sacramento/San Joaquin Delta	1-1
1-2	Three Phases of the CALFED Process	1-4
1-3	Geographic Scope of the Program Problem Area	1-11
2-1	General Features of Alternative 1 with a Focus on Delta Facilities	2-3
2-2	General Features of Alternative 2 with a Focus on Delta Facilities	2-4
2-3	General Features of Alternative 3 with a Focus on Delta Facilities	2-5
2-4	General Features of the Preferred Program Alternative with a Focus on Delta Facilities	2-6
4-1	Organization of a Resource Discussion Using Recreation as the Example	4-3
5.1-1	Surface Water Features Location Map	Follows 5.1-4
5.1-2	Assessment Approach for the CALFED Programmatic EIS/EIR	Follows 5.1-19
5.1-3	Delta Exports at Banks and Tracy under the No Action Alternative and Existing Conditions for the Long-Term Period	Follows 5.1-25
5.1-4	Delta Exports at Banks and Tracy under the No Action Alternative and Existing Conditions for Dry and Critical Years	Follows 5.1-25
5.1-5	Delta Outflow under the No Action Alternative and Existing Conditions for the Long-Term Period	Follows 5.1-26
5.1-6	Delta Outflow under the No Action Alternative and Existing Conditions for Dry and Critical Years	Follows 5.1-26
5.1-7	Sacramento River Region Depletion under the No Action Alternative and Existing Conditions for the Long-Term Period and Dry and Critical Years	Follows 5.1-27
5.1-8	San Joaquin River Region Depletion under the No Action Alternative and Existing Conditions for the Long-Term Period and Dry and Critical Years	Follows 5.1-27
5.1-9	Carryover Storage for Existing Surface Reservoirs in the Sacramento River Region under the No Action Alternative and Existing Conditions	Follows 5.1-27
5.1-10	Carryover Storage for Existing Surface Reservoirs in the San Joaquin River Region under the No Action Alternative and Existing Conditions	Follows 5.1-27
5.1-11	Average Annual Delta Deliveries under the No Action Alternative and Existing Conditions	Follows 5.1-28
5.1-12	Carryover Storage for Existing Off-Aqueduct Reservoirs under the No Action Alternative and Existing Conditions	Follows 5.1-28
5.1-13	Delta Exports at Banks and Tracy under Alternative 1 for the Long-Term Period	Follows 5.1-37
5.1-14	Delta Exports at Banks and Tracy under Alternative 1 for Dry and Critical Years	Follows 5.1-37
5.1-15	Average Annual Delta Exports at Banks and Tracy under Alternative 1 for the Long-Term Period and Dry and Critical Years	Follows 5.1-37
5.1-16	Delta Outflow under Alternative 1 for the Long-Term Period	Follows 5.1-37
5.1-17	Delta Outflow under Alternative 1 for Dry and Critical Years	Follows 5.1-37
5.1-18	Carryover Storage for Existing Surface Reservoirs in the Sacramento River Region under Alternative 1 for the Long-Term Period and Dry and Critical Years	Follows 5.1-38

Figure — Page

5.1-19 Carryover Storage for New Surface Reservoirs in the Sacramento River Region under Alternative 1 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-38

5.1-20 Average Annual Delta Deliveries under Alternative 1 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-41

5.1-21 Carryover Storage for Existing Off-Aqueduct Reservoirs under Alternative 1 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-42

5.1-22 Carryover Storage for New Off-Aqueduct Reservoirs under Alternative 1 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-42

5.1-23 Delta Exports at Banks and Tracy under Alternative 2 for the Long-Term Period ..... Follows 5.1-43

5.1-24 Delta Exports at Banks and Tracy under Alternative 2 for the Dry and Critical Years ... Follows 5.1-43

5.1-25 Average Annual Delta Exports at Banks and Tracy under Alternative 2 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-43

5.1-26 Hood Diversions under Alternative 2 for the Long-Term Period ..... Follows 5.1-43

5.1-27 Hood Diversions under Alternative 2 for Dry and Critical Years ..... Follows 5.1- 43

5.1-28 Delta Outflow under Alternative 2 for the Long-Term Period ..... Follows 5.1-44

5.1-29 Delta Outflow under Alternative 2 for Dry and Critical Years ..... Follows 5.1-44

5.1-30 Carryover Storage for Existing Surface Reservoirs in the Sacramento River Region under Alternative 2 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-45

5.1-31 Carryover Storage for New Surface Reservoirs in the Sacramento River Region under Alternative 2 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-45

5.1-32 Average Annual Delta Deliveries under Alternative 2 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-47

5.1-33 Carryover Storage for Existing Off-Aqueduct Reservoirs under Alternative 2 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-48

5.1-34 Carryover Storage for New Off-Aqueduct Reservoirs under Alternative 2 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-48

5.1-35 Delta Exports at Banks and Tracy under Alternative 3 for the Long-Term Period ..... Follows 5.1-49

5.1-36 Delta Exports at Banks and Tracy under Alternative 3 for Dry and Critical Years ..... Follows 5.1-49

5.1-37 Average Annual Delta Exports at Banks and Tracy under Alternative 3 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-49

5.1-38 Isolated Facility Diversions under Alternative 3 for the Long-Term Period ..... Follows 5.1-50

5.1-39 Isolated Facility Diversions under Alternative 3 for Dry and Critical Years ..... Follows 5.1-50

5.1-40 Monthly Average Delta Outflow under Alternative 3 for the Long-Term Period ..... Follows 5.1-50

5.1-41 Monthly Average Delta Outflow under Alternative 3 for Dry and Critical Years ..... Follows 5.1-50

5.1-42 Carryover Storage for Existing Surface Reservoirs in the Sacramento River Region under Alternative 3 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-51

5.1-43 Carryover Storage for New Surface Reservoirs in the Sacramento River Region under Alternative 3 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-51

Figure — Page

5.1-44 Average Annual Delta Deliveries under Alternative 3 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-54

5.1-45 Carryover Storage for Existing Off-Aqueduct Reservoirs under Alternative 3 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-54

5.1-46 Carryover Storage for New Off-Aqueduct Reservoirs under Alternative 3 for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-54

5.1-47 Delta Exports at Banks and Tracy under the Preferred Program Alternative for the Long-Term Period ..... Follows 5.1-56

5.1-48 Delta Exports at Banks and Tracy under the Preferred Program Alternative for Dry and Critical Years ..... Follows 5.1-56

5.1-49 Average Annual Delta Exports at Banks and Tracy under All Program Alternatives for the Long-Term Period ..... Follows 5.1-56

5.1-50 Average Delta Exports at Banks and Tracy under All Program Alternatives for Dry and Critical Years ..... Follows 5.1-56

5.1-51 Hood Diversions under the Preferred Program Alternative for the Long-Term Period .. Follows 5.1-57

5.1-52 Hood Diversions under the Preferred Program Alternative for Dry and Critical Years .. Follows 5.1-57

5.1-53 Delta Outflow under the Preferred Program Alternative for the Long-Term Period .... Follows 5.1-57

5.1-54 Delta Outflow under the Preferred Program Alternative for Dry and Critical Years .... Follows 5.1-57

5.1-55 Carryover Storage for Existing Surface Reservoirs in the Sacramento River Region under the Preferred Program Alternative for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-59

5.1-56 Carryover Storage for New Surface Reservoirs in the Sacramento River Region under the Preferred Program Alternative for the Long-Term Period and Dry and Critical Years ... Follows 5.1-59

5.1-57 Average Annual Delta Deliveries under All Program Alternatives for the Long-Term Period ..... Follows 5.1-62

5.1-58 Average Annual Delta Deliveries under All Program Alternatives for Dry and Critical Years ..... Follows 5.1-62

5.1-59 Carryover Storage for Existing Off-Aqueduct Reservoirs under the Preferred Program Alternative for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-63

5.1-60 Carryover Storage for New Off-Aqueduct Reservoirs under the Preferred Program Alternative for the Long-Term Period and Dry and Critical Years ..... Follows 5.1-63

5.2-1 Delta Location Map ..... Follows 5.2-3

5.2-2 Sacramento River Flow Frequency at Freeport under Existing Conditions ..... Follows 5.2-7

5.2-3 San Joaquin River Flow Frequency at Vernalis under Existing Conditions ..... Follows 5.2-7

5.2-4 Average Monthly Sacramento River Flow at Rio Vista under the No Action Alternative for the Long-Term Period ..... Follows 5.2-14

5.2-5 Average Monthly Sacramento River Flow at Rio Vista under the No Action Alternative for Dry and Critical Years ..... Follows 5.2-14

5.2-6 Average Monthly QWEST Flow under the No Action Alternative for the Long-Term Period ..... Follows 5.2-14

Figure Page

5.2-7 Average Monthly QWEST Flow under the No Action Alternative for Dry and Critical Years ..... Follows 5.2-14

5.2-8 Average Monthly Cross-Delta Flow under the No Action Alternative for the Long-Term Period ..... Follows 5.2-15

5.2-9 Average Monthly Cross-Delta Flow under the No Action Alternative for Dry and Critical Years ..... Follows 5.2-15

5.2-10 Average Monthly X2 Position under the No Action Alternative for the Long-Term Period ..... Follows 5.2-15

5.2-11 Average Monthly X2 Position under the No Action Alternative for Dry and Critical Years ..... Follows 5.2-15

5.2-12 Average Monthly Sacramento River Flow at Freeport under the No Action Alternative for the Long-Term Period ..... Follows 5.2-16

5.2-13 Average Monthly Sacramento River Flow at Freeport under the No Action Alternative for Dry and Critical Years ..... Follows 5.2-16

5.2-14 Average Monthly San Joaquin River Flow at Vernalis under the No Action Alternative for the Long-Term Period ..... Follows 5.2-16

5.2-15 Average Monthly San Joaquin River Flow at Vernalis under the No Action Alternative for Dry and Critical Years ..... Follows 5.2-16

5.2-16 Average Monthly Sacramento River Flow at Rio Vista under Alternative 1 for the Long-Term Period ..... Follows 5.2-22

5.2-17 Average Monthly Sacramento River Flow at Rio Vista under Alternative 1 for Dry and Critical Years ..... Follows 5.2-22

5.2-18 Average Monthly QWEST Flow under Alternative 1 for the Long-Term Period ..... Follows 5.2-23

5.2-19 Average Monthly QWEST Flow under Alternative 1 for Dry and Critical Years ..... Follows 5.2-23

5.2-20 Average Monthly Cross-Delta Flow under Alternative 1 for the Long-Term Period .... Follows 5.2-23

5.2-21 Average Monthly Cross-Delta Flow under Alternative 1 for Dry and Critical Years .... Follows 5.2-23

5.2-22 Average Monthly X2 Position under Alternative 1 for the Long-Term Period ..... Follows 5.2-24

5.2-23 Average Monthly X2 Position under Alternative 1 for Dry and Critical Years ..... Follows 5.2-24

5.2-24 Average Monthly Sacramento River Flow at Freeport under Alternative 1 for the Long-Term Period ..... Follows 5.2-24

5.2-25 Average Monthly Sacramento River Flow at Freeport under Alternative 1 for Dry and Critical Years ..... Follows 5.2-24

5.2-26 Average Monthly San Joaquin River Flow at Vernalis under Alternative 1 for the Long-Term Period ..... Follows 5.2-25

5.2-27 Average Monthly San Joaquin River Flow at Vernalis under Alternative 1 for Dry and Critical Years ..... Follows 5.2-25

5.2-28 New Surface Storage Diversions in the Sacramento River Region under Alternative 1 for the Long-Term Period ..... Follows 5.2-25

5.2-29 New Surface Storage Diversions in the Sacramento River Region under Alternative 1 for Dry and Critical Years ..... Follows 5.2-25

Figure — Page

5.2-30 Average Monthly Sacramento River Flow at Rio Vista under Alternative 2 for the Long-Term Period . . . . . Follows 5.2-26

5.2-31 Average Monthly Sacramento River Flow at Rio Vista under Alternative 2 for Dry and Critical Years . . . . . Follows 5.2-26

5.2-32 Average Monthly QWEST Flow under Alternative 2 for the Long-Term Period . . . . . Follows 5.2-27

5.2-33 Average Monthly QWEST Flow under Alternative 2 for Dry and Critical Years . . . . . Follows 5.2-27

5.2-34 Average Monthly Cross-Delta Flow under Alternative 2 for the Long-Term Period . . . . Follows 5.2-27

5.2-35 Average Monthly Cross-Delta Flow under Alternative 2 for Dry and Critical Years . . . . Follows 5.2-27

5.2-36 Average Monthly X2 Position under Alternative 2 for the Long-Term Period . . . . . Follows 5.2-28

5.2-37 Average Monthly X2 Position under Alternative 2 for Dry and Critical Years . . . . . Follows 5.2-28

5.2-38 Average Monthly Sacramento River Flow at Freeport under Alternative 2 for the Long-Term Period . . . . . Follows 5.2-28

5.2-39 Average Monthly Sacramento River Flow at Freeport under Alternative 2 for Dry and Critical Years . . . . . Follows 5.2-28

5.2-40 Average Monthly San Joaquin River Flow at Vernalis under Alternative 2 for the Long-Term Period . . . . . Follows 5.2-29

5.2-41 Average Monthly San Joaquin River Flow at Vernalis under Alternative 2 for Dry and Critical Years . . . . . Follows 5.2-29

5.2-42 New Surface Storage Diversions in the Sacramento River Region under Alternative 2 for the Long-Term Period . . . . . Follows 5.2-29

5.2-43 New Surface Storage Diversions in the Sacramento River Region under Alternative 2 for Dry and Critical Years . . . . . Follows 5.2-29

5.2-44 Average Monthly Sacramento River Flow at Rio Vista under Alternative 3 for the Long-Term Period . . . . . Follows 5.2-31

5.2-45 Average Monthly Sacramento River Flow at Rio Vista under Alternative 3 for Dry and Critical Years . . . . . Follows 5.2-31

5.2-46 Average Monthly QWEST Flow under Alternative 3 for the Long-Term Period . . . . . Follows 5.2-31

5.2-47 Average Monthly QWEST Flow under Alternative 3 for Dry and Critical Years . . . . . Follows 5.2-31

5.2-48 Average Monthly Cross-Delta Flow under Alternative 3 for the Long-Term Period . . . . Follows 5.2-31

5.2-49 Average Monthly Cross-Delta Flow under Alternative 3 for Dry and Critical Years . . . . Follows 5.2-31

5.2-50 Average Monthly X2 Position under Alternative 3 for the Long-Term Period . . . . . Follows 5.2-32

5.2-51 Average Monthly X2 Position under Alternative 3 for Dry and Critical Years . . . . . Follows 5.2-32

5.2-52 Average Monthly Sacramento River Flow at Freeport under Alternative 3 for the Long-Term Period . . . . . Follows 5.2-32

5.2-53 Average Monthly Sacramento River Flow at Freeport under Alternative 3 for Dry and Critical Years . . . . . Follows 5.2-32

5.2-54 Average Monthly San Joaquin River Flow at Vernalis under Alternative 3 for the Long-Term Period . . . . . Follows 5.2-33

Figure — Page

5.2-55 Average Monthly San Joaquin River Flow at Vernalis under Alternative 3 for Dry and Critical Years ..... Follows 5.2-33

5.2-56 New Surface Storage Diversions in the Sacramento River Region under Alternative 3 for the Long-Term Period ..... Follows 5.2-33

5.2-57 New Surface Storage Diversions in the Sacramento River Region under Alternative 3 for Dry and Critical Years ..... Follows 5.2-33

5.2-58 Average Monthly Sacramento River Flow at Rio Vista under the Preferred Program Alternative for the Long-Term Period ..... Follows 5.2-35

5.2-59 Average Monthly Sacramento River Flow at Rio Vista under the Preferred Program Alternative for Dry and Critical Years ..... Follows 5.2-35

5.2-60 September Sacramento River Flows at Rio Vista under All Program Alternatives for the Long-Term Period ..... Follows 5.2-35

5.2-61 September Sacramento River Flows at Rio Vista under All Program Alternatives for Dry and Critical Years ..... Follows 5.2-35

5.2-62 Average Monthly QWEST Flow under the Preferred Program Alternative for the Long-Term Period ..... Follows 5.2-36

5.2-63 Average Monthly QWEST Flow under the Preferred Program Alternative for Dry and Critical Years ..... Follows 5.2-36

5.2-64 October QWEST Flows under All Program Alternatives for the Long-Term Period .... Follows 5.2-36

5.2-65 December QWEST Flows under All Program Alternatives for Dry and Critical Years ..... Follows 5.2-36

5.2-66 Monthly Average Cross-Delta Flow under the Preferred Program Alternative for the Long-Term Period ..... Follows 5.2-37

5.2-67 Monthly Average Cross-Delta Flow under the Preferred Program Alternative for Dry and Critical Years ..... Follows 5.2-37

5.2-68 Monthly Average X2 Position under the Preferred Program Alternative for the Long-Term Period ..... Follows 5.2-39

5.2-69 Monthly Average X2 Position under the Preferred Program Alternative for Dry and Critical Years ..... Follows 5.2-39

5.2-70 March X2 Position under All Program Alternatives for the Long-Term Period ..... Follows 5.2-39

5.2-71 March X2 Position under All Program Alternatives for Dry and Critical Years ..... Follows 5.2-39

5.2-72 Average Monthly Sacramento River Flow at Freeport under the Preferred Program Alternative for the Long-Term Period ..... Follows 5.2-40

5.2-73 Average Monthly Sacramento River Flow at Freeport under the Preferred Program Alternative for Dry and Critical Years ..... Follows 5.2-40

5.2-74 Average Monthly San Joaquin River Flow at Vernalis under the Preferred Program Alternative for the Long-Term Period ..... Follows 5.2-40

5.2-75 Average Monthly San Joaquin River Flow at Vernalis under the Preferred Program Alternative for Dry and Critical Years ..... Follows 5.2-40

5.2-76 New Surface Storage Diversions in the Sacramento River Region under the Preferred Program Alternative for the Long-Term Period ..... Follows 5.2-41

Figure — Page

5.2-77 New Surface Storage Diversions in the Sacramento River Region under the Preferred Program Alternative for Dry and Critical Years ..... Follows 5.2-41

5.3-1 Key Delta Water Quality Simulation Stations and Delta Subregions ..... Follows 5.3-31

5.3-2 Ranges of Salinity (expressed as EC) at Clifton Court Forebay for the Preferred Program Alternative ..... Follows 5.3-33

5.3-3 Ranges of Salinity (expressed as EC) at Prisoner's Point for the Preferred Program Alternative ..... Follows 5.3-33

5.3-4 Ranges of Salinity (expressed as EC) at Jersey Point for the Preferred Program Alternative ..... Follows 5.3-33

5.3-5 Ranges of Salinity (expressed as EC) at Middle River at Tracy Road for the Preferred Program Alternative ..... Follows 5.3-33

5.3-6 Ranges of Salinity (expressed as EC) at Rock Slough for the Preferred Program Alternative ..... Follows 5.3-33

5.3-7 Ranges of Salinity (expressed as EC) at Clifton Court Forebay for Alternative 1 ..... Follows 5.3-37

5.3-8 Ranges of Salinity (expressed as EC) at Prisoner's Point for Alternative 1 ..... Follows 5.3-37

5.3-9 Ranges of Salinity (expressed as EC) at Jersey Point for Alternative 1 ..... Follows 5.3-37

5.3-10 Ranges of Salinity (expressed as EC) at Middle River at Tracy Road for Alternative 1 ... Follows 5.3-37

5.3-11 Ranges of Salinity (expressed as EC) at Rock Slough for Alternative 1 ..... Follows 5.3-37

5.3-12 Ranges of Salinity (expressed as EC) at Clifton Court Forebay for Alternative 2 ..... Follows 5.3-41

5.3-13 Ranges of Salinity (expressed as EC) at Prisoner's Point for Alternative 2 ..... Follows 5.3-41

5.3-14 Ranges of Salinity (expressed as EC) at Jersey Point for Alternative 2 ..... Follows 5.3-41

5.3-15 Ranges of Salinity (expressed as EC) at Middle River at Tracy Road for Alternative 2 ... Follows 5.3-41

5.3-16 Ranges of Salinity (expressed as EC) at Rock Slough for Alternative 2 ..... Follows 5.3-41

5.3-17 Ranges of Salinity (expressed as EC) at Clifton Court Forebay for Alternative 3 ..... Follows 5.3-44

5.3-18 Ranges of Salinity (expressed as EC) at Prisoner's Point for Alternative 3 ..... Follows 5.3-44

5.3-19 Ranges of Salinity (expressed as EC) at Jersey Point for Alternative 3 ..... Follows 5.3-44

5.3-20 Ranges of Salinity (expressed as EC) at Middle River at Tracy Road for Alternative 3 ... Follows 5.3-44

5.3-21 Ranges of Salinity (expressed as EC) at Rock Slough for Alternative 3 ..... Follows 5.3-44

5.4-1 Distribution of Groundwater Basins in California ..... Follows 5.4-4

5.4-2 Groundwater Elevations in the Sacramento Valley ..... Follows 5.4-9

5.4-3 Extent of Land Subsidence in the Central Valley due to Groundwater Level Decline ... Follows 5.4-11

5.4-4 Groundwater Elevations in the San Joaquin Valley, Spring 1993 ..... Follows 5.4-13

5.4-5 Groundwater Model Area ..... Follows 5.4-16

5.4-6 Differences in End-of-Simulation Groundwater Elevations for Criteria A and B under the No Action Alternative ..... Follows 5.4-17

Figure — Page

5.4-7	Differences in End-of-Simulation Groundwater Elevations for Criteria A under Alternative 1 and the No Action Alternative	Follows 5.4-18
5.4-8	Differences in End-of-Simulation Groundwater Elevations for Criteria B under Alternative 1 and the No Action Alternative	Follows 5.4-18
5.5-1	Geologic Provinces of California	Follows 5.5-4
5.5-2	Generalized Soils of California	Follows 5.5-4
5.5-3	Land Surface below Sea Level in the Delta	Follows 5.5-5
5.5-4	Faults within and near the Delta	Follows 5.5-6
5.5-5	Selenium Concentrations	Follows 5.-14
7.5-1	Population Trend for Some Delta Region Municipal and Industrial Providers as a Percentage of 1990 Population	Follows 7.5-4
7.5-2	Bay Region Population Trends by Program Region, 1963 to 1990, and Predicted Population, 2000	Follows 7.5-4
7.5-3	LCPSIM Logic Flows	7.5-37
7.5-4	LCPSIM Input Data and Parameters	7.5-38
7.5-5	LCPSIM Loss Function	7.5-38
7.5-6	South Coast Region Carryover Storage Capacities	7.5-39
7.5-7	Bay Region Carryover Storage Capacities	7.5-39
7.5-8	South Coast Region Options	7.5-40
7.5-9	Bay Region Options	7.5-41
7.8-1a	Federal Flood Control Project Levees	Follows 7.8-6
7.8-1b	Local Non-Project Levees in the Delta	Follows 7.8-6
7.14-1	Racial Composition of the Delta Region	7.14-2
7.14-2	Racial Composition of the Bay Region	7.14-3
7.14-3	Racial Composition of the Sacramento River Region	7.14-3
7.14-4	Racial Composition of the San Joaquin River Region	7.14-4
7.14-5	Racial Composition of the Other SWP and CVP Service Areas	7.14-4

LIST OF ACRONYMS

A

AB	Assembly Bill
AFB	Air Force Base
AFRP	Anadromous Fish Restoration Program
ALs	action levels
ARWRI	American River Water Resource Investigation
ASIP	action-specific implementation plan
ATSF	Atchison, Topeka and Santa Fe
AWMC	Agricultural Water Management Council

B

BATs	best available technologies
Bay-Delta	San Francisco Bay/Sacramento-San Joaquin Delta estuary
BCDC	San Francisco Bay Conservation and Development Commission
BDAC	Bay-Delta Advisory Council
BMPs	best management practices

C

CAA	Clean Air Act
CalEPA	California Environmental Protection Agency
CALFED Ops Group	California-Federal Operations Group
CART	CALFED Agency Review Team
CCC	Contra Costa Canal
CCCTs	combined cycle combustion turbines
CCFB	Clifton Court Forebay
CCWD	Contra Costa Water District
CDF	California Department of Forestry and Fire Protection
CDFA	California Department of Food and Agriculture
CERT	Certification of the EIS/EIR
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CMARP	Comprehensive Monitoring, Assessment, and Research Program
CO	carbon monoxide
Corps	U.S. Army Corps of Engineers
CTs	combustion turbines
CUWA	California Urban Water Agency
CUWCC	California Urban Water Conservation Council
CVGSM	Central Valley Groundwater and Surface Water Model
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
CZARA	Coastal Zone Act Reauthorization Amendments
CZMA	Coastal Zone Management Act

D

D-	Water Rights Decision
D/DBP Rule	Disinfectant/Disinfection By-Products Rule
DBCP	dibromochloropropane
DBPs	disinfection by-products
DCC	Delta Cross Channel
DEFT	Diversion Effects on Fisheries Team
DFG	California Department of Fish and Game

DHS	California Department of Health Services
DMC	Delta-Mendota Canal
DO	dissolved oxygen
DOC	Department of Conservation
DOC	dissolved organic carbon
DPC	Delta Protection Commission
Dupont	El Dupont De Nemours & Co.
DWR	California Department of Water Resources
DWRSIM	DWR system operational model

E

EBMUD	East Bay Municipal Utility District
EBRPD	East Bay Regional Park District
EC	electrical conductivity
ECCID	East Contra Costa Irrigation District
EDB	ethylene dibromide
EDD	California Economic Development Department
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ERAF	Education Reinvestment Augmentation Fund of 1992
ESA	Endangered Species Act
ESWTR	Enhanced Surface Water Treatment Rule
EWA	Environmental Water Account
EWMP	efficient water management practices

F

FACA	Federal Advisory Committee
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Act
FIP	Federal Implementation Plan
FPPA	Farmland Protection Policy Act of 1981
fps	feet per second
FWCA	Fish and Wildlife Coordination Act

G

GBT	getting better together
GIS	geographic information system
gpcd	gallons per capita per day
GWh	gigawatt hours

I

I-5	Interstate-5
I-80	Interstate-80
IID	Imperial Irrigation District
Interior	U.S. Department of the Interior
IOCs	inorganic chemicals
ISDP	Interim South Delta Program
ISO	Independent System Operator

J

JPD	joint point of diversion

K

KCWA	Kern County Water Agency

L

LCPSIM	Least-Cost Planning Simulation Model
Ldn	day-night sound level
LTMS	Long-Term Management Strategy

M

M&I	municipal and industrial
MAD	mosquito abatement district
MAF	million acre-feet
MCLGs	maximum contaminant level goals
MCLs	maximum contaminant levels
mg/L	milligrams per liter
MH	Maas-Hoffman
MOA	memorandum of agreement
MOU	memorandum of understanding
MSCS	Multi-Species Conservation Strategy
msl	mean sea level
MTBE	methyl tert-butyl ether
MW	megawatts
MWD	The Metropolitan Water District of Southern California
MWh	megawatt hour
MWQI	Municipal Water Quality Investigation
μg/L	micrograms per liter
μmhos/cm	micromhos per centimeter

N

NBA	North Bay Aqueduct
NAWQA	National Water Quality Assessment
NCCAB	North Central Coast Air Basin
NCFCWCD	Napa County Flood Control and Water Conservation District
NCCP	Natural Community Conservation Plan
NCCPA	Natural Community Conservation Planning Act
NCP	navigation control point
NDDB	National Diversity Database
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NMOG	non-methane organic gas
NOD	Notice of Determination
NOI/NOP	Notice of Intent/Notice of Preparation
NO_x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NPS Program	Nonpoint Source Program
NRA	National Recreation Area
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSDWR	National Secondary Drinking Water Regulations
NWR	National Wildlife Refuge

O

O_3	ozone
Ops	Operations Coordination

P

PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PEIS	Programmatic Environmental Impact Statement
PG&E	Pacific Gas and Electric Company
PL	Public Law
PM_{10}	particulate matter smaller than 10 microns in diameter
$PM_{2.5}$	particulate matter smaller than 2.5 microns in diameter
ppb	parts per billion
ppm	parts per million
ppt	parts per thousand
Program	CALFED Bay-Delta Program
Programmatic EIS/EIR	Programmatic Environmental Impact Statement/Environmental Impact Report

Q

QWEST	Measure of net flow in the lower San Joaquin River and other smaller Delta channels

R

RBDD	Red Bluff Diversion Dam
Reclamation	U.S. Bureau of Reclamation
RMP	Regional Monitoring Plan
RO	reverse osmosis
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board

S

SB	Senate Bill
SBA	South Bay Aqueduct
SCFCWCD	Solano County Flood Control and Water Conservation District
SCVWD	Santa Clara Valley Water District
SDWA	Safe Drinking Water Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMPA	Suisun Marsh Preservation Agreement
SO_2	sulfur dioxide
SOC	synthetic organic chemical
SR 99	State Route 99
SRA	State Recreation Area
SRFCP	Sacramento River Flood Control Project
Strategic Plan	Strategic Plan for the Ecosystem Restoration Program
SDCWA	San Diego County Water Authority
SWP	State Water Project
SWRCB	State Water Resources Control Board
SWTR	Surface Water Treatment Rule

T

TAF	thousand acre-feet
TCE	trichloroethylene
TDS	total dissolved solids
THM	trihalomethane
TIE	toxicity identification evaluation
TMDL	total maximum daily load
TOC	total organic carbon
TSS	total suspended solids
TTHMs	total trihalomethanes

U

USFS	U.S. Forest Service
USGS	U.S. Geological Survey
USFWS	U.S. Fish and Wildlife Service
USTs	underground storage tanks

V

UV	ultra violet
VAMP	Vernalis Adaptive Management Plan
VMS	Visual Management System
VOCs	volatile organic chemicals

W

Western	Western Area Power Administration
WMA	Wildlife Management Area
WQCP	water quality control plan
WSCC	Western Systems Coordinating Council