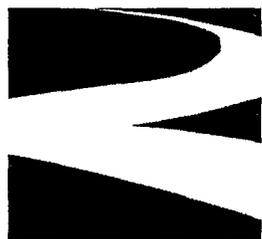
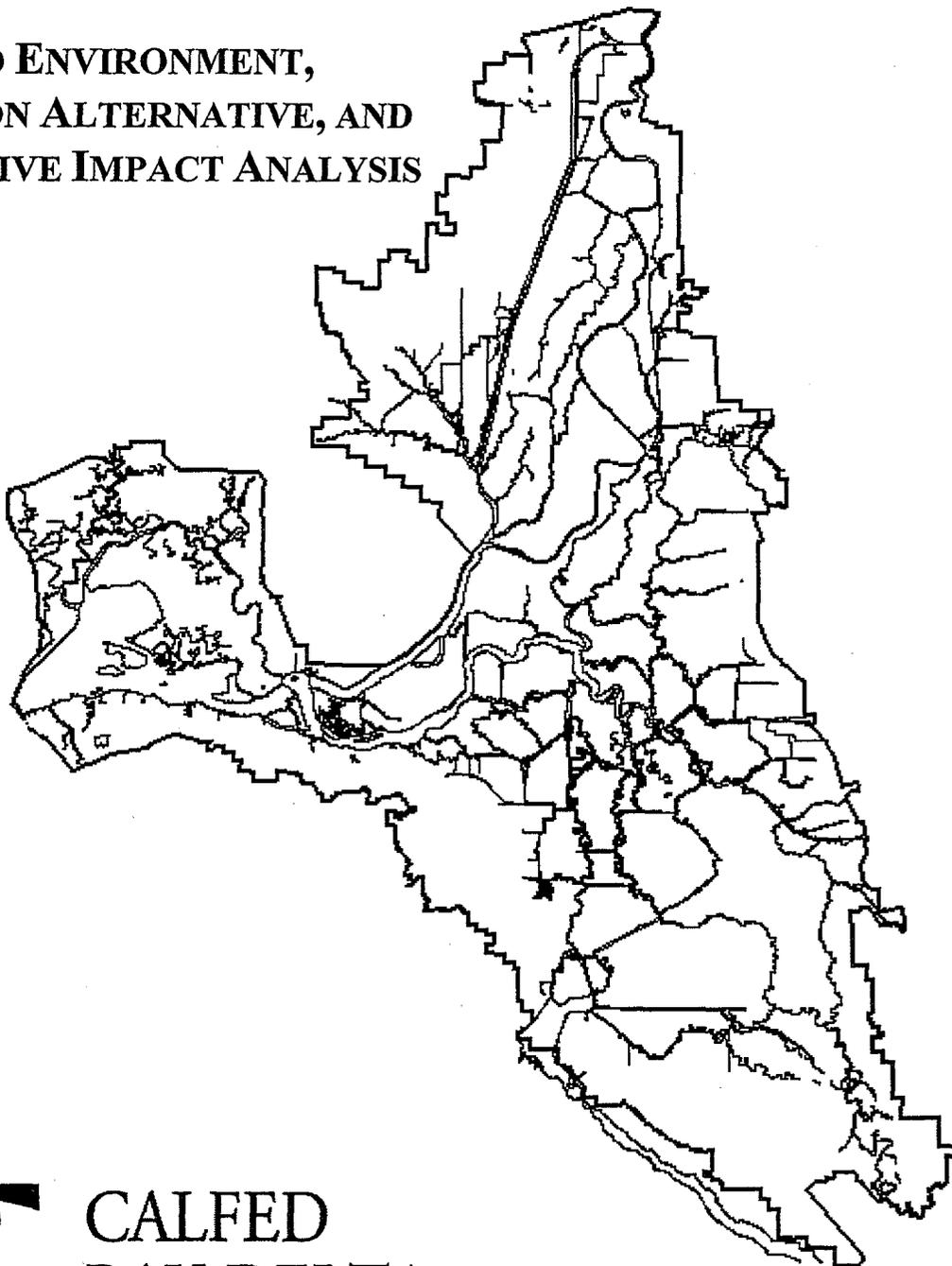


SUMMARY REPORT

CALFED BAY-DELTA PROGRAM

**AFFECTED ENVIRONMENT,
NO-ACTION ALTERNATIVE, AND
CUMULATIVE IMPACT ANALYSIS**



**CALFED
BAY-DELTA
PROGRAM**

MARCH 5, 1997

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SUMMARY REPORT

CALFED BAY-DELTA PROGRAM AFFECTED ENVIRONMENT, NO-ACTION ALTERNATIVE, AND CUMULATIVE IMPACT ANALYSIS

INTRODUCTION

The CALFED Bay-Delta Program (CALFED) has worked with agencies, stakeholders, and the public to develop information that will be used in the Programmatic Environmental Impact Report/Environmental Impact Statement (EIR/EIS). This summary report documents the process and results of CALFED's efforts to develop information for the affected environment, the No-Action Alternative, and the cumulative impact analysis portions of the EIR/EIS. CALFED believes that a substantial amount of this important effort is completed, but recognizes that, as the process moves forward, additional efforts may be required or additional issues may arise that will require resolution. As they develop, these issues will be brought to the attention of CALFED Agencies, stakeholders, other agencies, and the public.

CALFED has undertaken an intensive process to develop information for the affected environment/existing conditions, the No-Action Alternative, and the cumulative impact analysis. As part of this effort, meetings were held and various materials were prepared and distributed to key agencies, stakeholders, and the public for review and comment. The following list provides a summary of these meetings and materials. **All of the materials are available and will be provided on request:**

March 27, 1996: proposed approach for preparing affected environment/existing conditions description;

May 20, 1996: discussion paper outlining CALFED's proposed approach to developing the No-Action Alternative and identifying projects for the cumulative impact analysis;

July 1, 1996: workshop packet describing proposed affected environment/existing conditions resource categories and time periods to be covered in describing the affected environment/existing conditions, projects in the No-Action Alternative and cumulative impact analysis, and proposed operational criteria;

July 11, 1996: workshop presenting the information in the July 1, 1996 workshop packet;

September 27, 1996: transmittal and report dated September 18, 1996 presenting the detailed results of the No-Action Alternative screening effort, adjustments to affected environment/existing conditions resource categories and time periods, and responses to written and oral comments received in response to the July 1, 1996 workshop packet and July 11, 1996 workshop;

September 27, 1996: first workgroup meeting to discuss operational and regulatory assumptions for affected environment/existing conditions and the No-Action Alternative;

October 1, 1996: release of draft affected environment reports describing Delta resources to CALFED agencies for review;

October 11, 1996: second workgroup meeting to discuss operational and regulatory assumptions for affected environment/existing conditions and the No-Action Alternative;

November 15, 1996: third workgroup meeting to discuss operational and regulatory assumptions for affected environment/existing conditions and the No-Action Alternative; and

January 22, 1997: transmittal and report dated December 30, 1996 summarizing results of the September 27 to November 15, 1996 meetings, and a second report dated December 31, 1996 responding to comments received on the September 18, 1996 report.

The California Environmental Quality Act (CEQA) requires that an EIR describe the environment in the vicinity of the project, from both local and regional perspectives, as it exists before commencement of the project. The National Environmental Policy Act (NEPA) requires that an EIS describe the area to be affected or created by the alternatives under consideration. For the CALFED Programmatic EIR/EIS, the affected environment will be a description of the existing physical, biological, economic, and social conditions.

Both CEQA and NEPA also require that an EIR or EIS examine alternative ways of accomplishing the objectives of a proposed project. Both Acts also require an examination of a no-project or no-action alternative. The No-Action Alternative is intended to disclose to the public and decision makers what would happen if the proposed action was not implemented and existing trends and conditions continued. The purpose of this analysis is to help decision makers understand the consequences of a proposed action and alternatives to that action. The No-Action Alternative and affected environment will serve as "baselines" against which the impacts and benefits of CALFED alternatives will be compared.

CEQA and NEPA also require an evaluation of the cumulative impacts of an action. Cumulative impacts are defined by CEQA and NEPA as incremental impacts on the environment that result from the proposed action in combination with other past, present, and reasonably

foreseeable future actions. CALFED has developed information that will form the basis of the cumulative impact analysis.

The following sections focus on this information.

AFFECTED ENVIRONMENT

CALFED went through extensive efforts to determine the appropriate approach to describe the affected environment. These efforts included:

development of an Affected Environment/Existing Conditions Workplan, dated March 27, 1996, that included screening criteria to help determine resources appropriate for consideration in the Programmatic EIR/EIS;

workshop materials for the July 11, 1996 workshop discussing development of the affected environment descriptions; and

continued refinement of resource categories based on comments received on the July 1, 1996 workshop packet, comments received at the July 11, 1996 workshop, and comments on the September 18, 1996 report.

Defining the affected environment (sometimes referred to as existing conditions) is important in the preparation of the Programmatic EIR/EIS because, as described in the Introduction, this information will describe the environment in the vicinity of the project as it exists before commencement of the project and it will form one of the "baselines" against which the impacts of the No-Action Alternative and the action alternatives will be compared. The affected environment discussion will include a historical perspective of issues that have influenced present conditions. For example, a description of existing water quality conditions within the Bay-Delta region will contain a brief synopsis of historical land use practices that have affected water quality.

CALFED recognizes that to describe the affected environment for many resources, it is necessary to discuss more than a single point in time because of the seasonal and annual variations that affect those resources. For example, the conditions related to fisheries fluctuate substantially from year to year. Describing the conditions of a fishery at a single point in time would result in an inaccurate description of the overall condition of the fishery. Therefore, CALFED proposes to use several years of data to evaluate the conditions of certain specific resources. Other resources, such as geologic and soil conditions, do not vary substantially from year to year.

Table 1 provides a list of the resource categories and associated description periods. The

description period includes the timeframe for describing the historical perspective and describing the resources for purposes of comparison to the alternatives. Up to this point, there have been two different description periods on Table 1. One for describing the historic period and the second for describing current resources for purposes of comparison to the alternatives. The second was dropped from Table 1 but will be developed by the specific resource teams as needs for impact analysis become apparent.

Describing existing conditions for the Programmatic EIR/EIS requires development of operational and regulatory assumptions for use in DWRSIM modeling. As part of developing the No-Action Alternative (discussed in detail later in this document), CALFED completed an extensive process to develop these assumptions. During the course of developing the assumptions for the DWRSIM modeling, non-modeling assumptions were suggested by meeting participants. Table 2 lists the criteria and assumptions that have been developed for the affected environment.

Table 1. Resource Categories and
Affected Environment Description Periods

Resource Categories	Description Period
Physical Environment	
Surface-water hydrology	1920-1995
Groundwater hydrology	1920-1995
Riverine hydraulics	1920-1995
Water management facilities and operations	1920-1995
Bay-Delta hydrodynamics	1920-1995
Flood control system	1920-1995
Water quality	1920-1995
Geomorphology and soils	1850-1995
Air quality	1967-1995
Noise	1967-1995
Traffic and navigation	1967-1995
Biological Environment	
Fisheries and aquatic ecosystem	pre-1920s-1995
Vegetation and wildlife	pre-1920s-1995
Special-status species	pre-1920s-1995
Economic and Social Environment	
Land use	1920-1995
Agricultural economics	1920-1995

Municipal and industrial water supply economics	1920-1995
Flood control economics	1920-1995
Fish, wildlife, and recreation economics	pre-1920's-1995
Regional economics	1920-1995
Power production and energy	1960-1995
Recreation resources	1940-1995
Visual resources	1940-1995
Cultural resources	dawn of man
Public health and environmental hazards	1967-1995
Utilities and public services	1967-1995

Table 2. Operational and Regulatory Criteria and Assumptions for Affected Environment

Criteria/Assumptions	CALFED Preliminary Affected Environment	CALFED Preliminary No-Action Alternative
Level of development	1995	2020
Delta standards	1995 WQCP ²	1995 WQCP
American River	Current criteria ³	Same as affected environment
Sacramento River	Current criteria	Same as affected environment
Banks export (maximum)	6,680 cfs	6,680 cfs
Tracy export (maximum)	4,600 cfs	4,600 cfs
Folsom Reservoir flood control operations	400-670 TAF	400-670 TAF
COA ¹	Existing	Existing
Trinity River flows	340 TAF in all years	340 TAF in all years ⁴
Monterey Agreement	In place	In place
CVP demands	6.1 MAF	6.5 MAF
SWP demands	2.6-3.6 MAF	4.1 MAF
Refuge demands	Level II plus partial Level IV	Level IV
Responsibility for meeting Delta standards	CVP/SWP	CVP/SWP
Tuolumne River flows	1987 License Amendment	1995 Settlement Agreement
Mokelumne River flows	1961 DFG agreement	Newly-negotiated flows under signed Principles of Agreement
Contract renewals	Assume renewal pursuant to existing contracts	Same as affected environment

Contract amounts	Assume that all contracts will be renewed at current quantities; deliveries will be limited by existing facilities and regulatory constraints	Same as affected environment
Water rights	Assume delivery of water rights	Same as affected environment
Water conservation	Assume systemwide water conservation levels as generally outlined in DWR Bulletin 160-93	Same as affected environment
CVP and SWP operations	Assume continued operations pursuant to the 1992 CVP operating criteria and procedures and current SWP operations criteria	Same as affected environment
Land retirement	Assume existing agricultural acreage	Assume that 45,000 acres are retired by 2020, consistent with Bulletin 160-93
Power production	Assume, for modeling, that power is produced incidental to other operations	Same as affected environment
Red Bluff Diversion Dam operations	Assume existing operations of the dam	Same as affected environment
Water contract rate setting	Assume existing rate-setting policies	Same as affected environment
Delta barriers	Assume existing practices for placing Delta barriers	Same as affected environment
Flood control	Assume existing flood control policies	Same as affected environment
Drinking water regulations	Assume existing drinking water policies and regulations	Assume existing drinking water policies and regulations ⁵ .

Groundwater regulations	Assume existing groundwater regulation policies	Same as affected environment
Agricultural crop subsidies	Assume current agricultural crop subsidies	Assume elimination of agricultural crop subsidies by 2020
Endangered species listings	Assume current listed species	Assume no new listings of species

¹ COA sharing formula is based on operations under D-1485, not the 1995 WQCP. If changes are defined in the future, adjustments may be made.

² To address recent changes in the regulatory framework, CALFED is considering analysis of these changes that occurred between D-1485 and the 1995 WQCP.

³ CALFED will also conduct a sensitivity analysis to assess potential increased demands on the American River system.

⁴ Trinity River flows are the subject of a separate study. CALFED will conduct a sensitivity analysis to assess effects of other potential flow regimes.

⁵ In addition, CALFED will examine the results of work in progress by CUWA.

NOTE: TAF=thousand acre-feet
MAF=million acre-feet
CUWA=California Urban Water Agencies

NO-ACTION ALTERNATIVE

There are two elements needed to describe the No-Action Alternative for the Programmatic EIR/EIS: major projects that would most likely move forward regardless of the outcome of CALFED, and operational and regulatory assumptions associated with the operation of the California water system and regulations that affect the demand for and use of water in California. As described in the Introduction, CALFED has undertaken an extensive analysis and coordination effort to determine and describe these elements.

PROJECTS TO BE INCLUDED IN THE NO-ACTION ALTERNATIVE

To develop the No-Action Alternative, CALFED needed to determine which actions proposed by other agencies and parties were appropriate to include in these analyses. CALFED recognized that there were many potential actions in various stages of approval that needed to be addressed and developed a process (outlined in the May 20, 1996 report) to identify appropriate screening criteria for all major potential actions that could conceivably be included in the No-Action Alternative and cumulative impact analysis. A description of this process was distributed for review and comment. Once this process was finalized, CALFED created a list of potential actions from a variety of sources, including a list developed for similar purposes as part of the Central Valley Project Improvement Act (CVPIA) process. CALFED then prepared materials for a July 11, 1996 workshop which was held to provide information to the public and stakeholders regarding actions CALFED initially believed should be in the No-Action Alternative. Proposed project screening criteria were presented and CALFED suggested their use in determining whether projects and actions by other agencies and parties should be included in the No-Action Alternative or excluded from the CALFED process because they were too undefined or speculative. Approximately 50 representatives from the public, agencies, and stakeholders attended the workshop.

Using the information received at the workshop and based on further research, CALFED published a draft report on September 18, 1996 that described all of the projects being considered for inclusion in the No-Action Alternative and provided the final criteria for screening these projects. The September 18, 1996 report was distributed for review and comment. Based on comments received, a final report was published on December 31, 1996 describing the results of the project screening process. Table 3 lists the screening criteria that were used to determine whether a particular project should be included in the No-Action Alternative, and Table 4 provides a list of the projects that met all of the screening criteria and that will, therefore, be included in the No-Action Alternative.

Table 3. Criteria Used to Define the No-Action Alternative

Criteria	Discussion
Criterion 1: Has the action been approved for implementation?	To be included in the No-Action Alternative, implementation of the action must have been approved by the project sponsor or by the ultimate authorizing agency. In the case of a construction-related project, this approval must include authorization for design and construction.
Criterion 2: Does the action have funding for implementation?	To be included in the No-Action Alternative, an action must have sufficient approved funding to provide for its implementation.
Criterion 3: Does the action have final environmental documents?	This criterion would be satisfied if all environmental documents and approvals necessary for implementation of the action have been completed.
Criterion 4: Does the action have final environmental permits and approvals?	This criterion would be satisfied if all final major permits and approvals (e.g., a Section 404 Permit or Endangered Species Act compliance) necessary to implement the action have been obtained.
Criterion 5: Will the action be excluded from the CALFED actions?	Actions that will be included in the action alternatives for CALFED will not be included in the No-Action Alternative. A comparison of the action alternatives with the No-Action Alternative would be distorted if an action were included in both.
Criterion 6: Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis?	If a project=s effects would be undetectable or minor in the programmatic impact analysis, the project need not be included in the No-Action Alternative. For example, if a project to be implemented by a water user could change localized conditions near the project but would not affect regional conditions, or if those changes would be minor, the action may not need to be included in the No-Action Alternative. This criterion is intended to avoid inclusion of actions that would not materially affect the outcome of the CALFED alternatives analysis.

Table 4. Projects Included in the No-Action Alternative

Project

Coastal Aqueduct

CVPIA - dedication of 800,000 acre-feet, Level IV refuge water and the Shasta Temperature Control Device

Interim Reoperation of Folsom Reservoir

Kern Water Bank (phases already completed or under construction)

Los Vaqueros Reservoir Project

Metropolitan Water District - Inland Feeder Project

Monterey Agreement

New Melones Conveyance Project

Sacramento River Flood Control System Evaluation (partial)

Sacramento-San Joaquin Delta Levees Subvention Project

Semitropic Water Storage District/Metropolitan Water District -Semitropic Groundwater Banking Project

Stone Lakes National Wildlife Refuge

Trinity River Restoration Program

OPERATIONAL AND REGULATORY ASSUMPTIONS FOR THE NO-ACTION ALTERNATIVE

As described in the Introduction section, CALFED held meetings with agency and stakeholder representatives on September 27, October 11, and November 15, 1996 to help determine appropriate assumptions to be used in developing the No-Action Alternative for the Programmatic EIR/EIS. The initial purpose of these meetings was to help CALFED determine appropriate assumptions to be used in DWRSIM modeling of the No-Action Alternative. During the course of developing the assumptions for the DWRSIM modeling, non-modeling assumptions were suggested by meeting participants.

During the three meetings, CALFED presented initial-draft assumptions for the No-Action Alternative. Each of these assumptions were discussed at length and either a general consensus was reached or the item was carried forward to the next meeting. At subsequent meetings, CALFED prepared and conducted a more detailed discussion of the items carried forward and discussed additional assumptions for the No-Action Alternative. All information presented or discussed was documented in meeting minutes. Table 5 lists the operational criteria and assumptions that were developed for the No-Action Alternative during these meetings.

Table 5. Operational and Regulatory Criteria and Assumptions
for the No-Action Alternative

Criteria/Assumptions	CALFED Preliminary Affected Environment	CALFED Preliminary No-Action Alternative
Level of development	1995	2020
Delta standards	1995 WQCP ²	1995 WQCP
American River	Current criteria ³	Same as affected environment
Sacramento River	Current criteria	Same as affected environment
Banks export(maximum)	6,680 cfs	6,680 cfs
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Monterey Agreement	In place	In place
CVP demands	6.1 MAF	6.5 MAF
SWP demands	2.6-3.6 MAF	4.1 MAF
Refuge demands	Level II plus partial Level IV	Level IV
Responsibility for meeting Delta standards	CVP/SWP	CVP/SWP
Tuolumne River flows	1987 License Agreement	New FERC flows
Mokelumne River flows	1961 DFG agreement	Newly-negotiated flows under signed Principles of Agreement
Contract renewals	Assume renewal pursuant to existing contracts	Same as affected environment

Contract amounts	Assume that all contracts will be renewed at current quantities; deliveries will be limited by existing facilities and regulatory constraints	Same as affected environment
Water rights	Assume delivery of water rights	Same as affected environment
Water conservation	Assume systemwide water conservation levels as generally outlined in DWR Bulletin 160-93	Same as affected environment
CVP and SWP operations	Assume continued operations pursuant to the 1992 CVP operating criteria and procedures and current SWP operational criteria	Same as affected environment
Land retirement	Assume existing agricultural acreage	Assume that 45,000 acres are retired by 2020, consistent with Bulletin 160-93
Power production	Assume, for modeling, that power is produced incidental to other operations	Same as affected environment
Red Bluff Diversion Dam operations	Assume existing operations of the dam	Same as affected environment
Water contract rate setting	Assume existing rate-setting policies	Same as affected environment
Delta barriers	Assume existing practices for placing Delta barriers	Same as affected environment
Flood control	Assume existing flood control policies	Same as affected environment
Drinking water regulations	Assume existing drinking water policies and regulations	Assume existing drinking water policies and regulations.⁵
Groundwater regulations	Assume existing groundwater regulation policies	Same as affected environment

Agricultural crop subsidies	Assume current agricultural crop subsidies	Assume elimination of agricultural crop subsidies by 2020
Endangered-species listings	Assume current listed species	Assume no new listings of species

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² To address recent changes in the regulatory framework, CALFED is considering analysis of these changes that occurred between D-1485 and the 1995 WQCP.

³ CALFED will also conduct a sensitivity analysis to assess potential increased demands on the American River system.

⁴ Trinity River flows are the subject of a separate study. CALFED will conduct a sensitivity analysis to assess effects of other potential flow regimes.

⁵ In addition, CALFED will examine the results of work in progress by CUWA.

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CUMULATIVE IMPACT ANALYSIS

The approach used to develop projects to be included in the cumulative impact analysis is similar to that described above for the No-Action Alternative. CALFED proposed screening criteria in the May 20, 1996 report to help determine which projects being proposed by others were not sufficiently defined to be included in the No-Action Alternative, but which were still Reasonably foreseeable and should therefore be included in the cumulative impact analysis. These criteria were also presented and discussed at the July 11, 1996 workshop and in the September 18, 1996 report.

The approach used by CALFED was to create a list of projects that were first compared with the screening criteria developed for the No-Action Alternative. Actions that met all of those criteria were included in the No-Action Alternative and were not further considered separately for inclusion in the cumulative impact analysis. Actions that did not meet all of the screening criteria for the No-Action Alternative were then screened for inclusion in the cumulative impact analysis. The actions meeting the cumulative impact analysis screening criteria will be included in the cumulative impact analysis. The cumulative impact analysis screening criteria are listed in Table 6. Projects meeting the cumulative impact analysis screening criteria and that will therefore be included in the cumulative impact analysis are listed on Table 7.

Table 6. Screening Criteria for Inclusion in the Cumulative Impact Analysis

Criteria	Discussion
Criterion 1: Is the action under active consideration?	Active consideration is defined as having current funding and staff support for planning and design.
Criterion 2: Does the action have recently-completed environmental documentation or are environmental documents in some active stage of completion?	This criterion is intended to eliminate actions that have been under consideration for a long period of time but for which no recent effort has been undertaken that would allow a reasonable projection for completion.
Criterion 3: Would the action be completed and operating within the timeframe being considered for CALFED (assumed to be 2020)?	
Criterion 4: Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources?	This criterion is intended to exclude actions that meet the other criteria, but that have little or no potential to result in cumulative impacts.

Table 7. Projects Included in the Cumulative Impact Analysis

Project

American River Water Resources Investigation
American River Watershed Project
CVPIA (except 800,000 acre-feet, Level IV refuge water and Shasta Temperature Control Device)
Contra Costa Pumping Plant Modification
Delta Wetlands Project
Folsom South Canal Connection Project
Interim South Delta Program
Montezuma Wetlands Project
Pardee Reservoir Enlargement Project
Red Bluff Diversion Dam Fish Passage Program
Refuge Water Supply Study

Appendix A

California Water Resource Development System models such as DWRSIM and PROSIM are designed to emulate real system operations to the extent feasible and thus largely incorporate the physical and regulatory constraints of the system, many of which are defined below.

Level of Development: Refers to the water supply requirements, based on land use and populations, used in estimating future water demands. The ability of the State's water resource system to meet these demands is limited by water availability, physical facilities, and regulatory constraints.

Delta Standards: Refers to the set of Delta water quality standards, flow standards and facilities operating rules established by the SWRCB which govern SWP and CVP Delta export operations.

American River Standards: Refers to various standards for minimum American River flows below Nimbus Dam. The model operates to maintain at least these flows at all times.

Sacramento River Standards: Refers to the flow standards for minimum Sacramento River flows below Keswick Dam to protect fisheries, navigation, and other beneficial uses of the river.

Banks Export Limits: Refers to maximum average monthly allowable diversion at the DWR Harvey O. Banks pumping plant.

Tracy Export Limits: Refers to maximum average monthly allowable diversion at the CVP Tracy pumping plant.

Folsom Reservoir Flood Control Operations: Refers to flood control operations at Folsom Reservoir. The 400-670 TAF flood control reserve in Folsom Reservoir reflects the current flood control storage operations at the reservoir.

COA: Refers to the Coordinated Operation Agreement between the State of California and the United States which currently govern the sharing, between the CVP and SWP, of surplus water supplies and reservoir releases required to maintain Delta standards.

Trinity River Standards: Refers to the standards for minimum Trinity River Flows below Trinity Reservoir.

Monterey Agreement: Refers to the recent agreement between the SWP contractors and DWR regarding management of the SWP.

CVP Demands: Refers to the level of demands for CVP water contracts or agreements.

SWP Demands: Refers to the level of demands for SWP water contracts or agreements.

Refuge Demands: Refers to the level of demands for state and federal wildlife refuges. Level II approximates the quantity of water currently being delivered to refuges. Level IV approximates the quantity of water required for full development of the refuges.

Responsibility for Meeting Delta Standards: Only the CVP and SWP are currently responsible for meeting the existing Delta water quality standards. This responsibility may ultimately be shared by other water rights holders. The State Water Resources Control Board is reviewing this issue.

Tuolumne River Standards: Flow requirements for the Tuolumne River were recently modified. These flows are included under both existing conditions and the no-action alternative.

Mokelumne River Standards: Flows on the Mokelumne River have been the subject of negotiation among several parties.

Contract Renewals: Refers to conditions under which CVP and SWP contracts are assumed to be renewed in future years.

Contract Amounts: Refers to the quantities of water deliveries that will be agreed upon in renewed contracts.

Water Rights: Refers to a system of rules governing quantities and priorities of water allocated to various water users.

Water Conservation: Refers to assumed levels of water conservation statewide.

CVP and SWP Operations: Refers to methods and criteria used to operate the CVP and SWP.

Land Retirement: Refers to a program to remove acreage in the Central Valley from cultivation. Focus are the drainage problem lands.

Power Production: Refers to model assumptions regarding power production by the CVP and SWP with respect to water releases from reservoirs.

Red Bluff Diversion Dam Operations: Refers to assumed operations of the Red Bluff Diversion Dam.

Water Contract Rate Setting: Refers to CVP and SWP water contract rate setting policies.

Delta Barriers: Refers to facilities to improve fish guidance, water quality and water stages in the Delta. These include temporary and permanent barriers as well as structures and acoustic barriers.

Flood Control: Refers broadly to flood control practices and policies, primarily at existing reservoirs.

Drinking Water Regulations: Refers to assumed drinking water policies and regulations which could affect water treatment requirements.

Groundwater Regulations: Refers to state and local policies regarding the management of groundwater resources.

Agricultural Crop Subsidies: Refers to assumptions regarding the level of agricultural crop support programs administered by USDA.

Endangered Species Listings: Refers to assumptions regarding the listing of new species under the state and federal Endangered Species Acts.

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SUMMARY REPORT

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INTRODUCTION

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Both CEQA and NEPA also require that an EIR or EIS examine alternative ways of accomplishing the objectives of a proposed project. Both acts also require an examination of a "no-project" or "no-action" alternative. The No-Action Alternative is intended to disclose to the public and decision makers what would happen if the proposed action was not implemented and existing trends and conditions continued. The purpose of this analysis is to help decision makers understand the consequences of a proposed action and alternatives to that action. The No-Action Alternative and existing conditions will serve as baselines against which the impacts and benefits of CALFED alternatives will be compared.

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The following sections focus on this information.

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- development of an Affected Environment/Existing Conditions Workplan, dated March 27, 1996, that included screening criteria to help determine resources appropriate for consideration in the Programmatic EIR/EIS;
- workshop materials for the July 11, 1996 workshop discussing development of the affected environment/existing conditions descriptions; and
- continued refinement of resource categories based on comments received on the July 1, 1996 workshop packet, comments received at the July 11, 1996 workshop, and comments on the September 18, 1996 report that should be considered by CALFED in the Programmatic EIR/EIS.

Defining the affected environment/existing conditions is important in the preparation of the Programmatic EIR/EIS because, as described in the "Introduction", this information will form one of the "baselines" against which the impacts of the No-Action Alternative and the action alternatives will be compared. Additionally, the existing conditions discussion provides a historical perspective of issues that have influenced present conditions. For example, a description of existing water quality conditions within the Bay-Delta region will contain a brief synopsis of historical land use practices that have affected water quality.

CALFED recognizes that to describe the "existing conditions" for many resources, it is necessary to discuss more than a single point in time because of the seasonal and annual variations that affect those resources. For example, the conditions related to fisheries fluctuate substantially from year to year. Describing the conditions of a fishery at a single point in time would result in an inaccurate description of the overall condition of the fishery. Therefore, CALFED proposes to use several years of data to evaluate the conditions of specific resources. Other resources, such as geologic and soil conditions, do not vary substantially from year to year. For these resources, CALFED intends to use the most recent relevant data to describe their conditions. Table 1 provides a list of the resource categories and the historical perspective and affected environment description periods.

Table 1. Resource Categories, Historical Period, and Affected Environment Description Periods

Resource Categories	Historical Description Period	Affected Environment Description Periods
Physical Environment		
Surface-water hydrology	1920-1995	1920-1995
Groundwater hydrology	1920-1995	1976-1995
Riverine hydraulics	1920-1995	1920-1995
Water management facilities and operations	1920-1995	1920-1995
Bay-Delta hydrodynamics	1920-1995	1920-1995
Flood control system	1920-1995	1920-1995
Water quality	1920-1995	1976-1995
Geomorphology and soils	1850-1995	1995
Air quality	1967-1995	1986-1995
Noise	1967-1995	1995
Traffic and navigation	1967-1995	1995
Biological Environment		
Fisheries and aquatic ecosystem	pre-1920s-1995	1986-1995
Vegetation and wildlife	pre-1920s-1995	1986-1995
Special-status species	pre-1920s-1995	1986-1995
Economic and Social Environment		
Land use	1920-1995	1976-1995
Agricultural economics	1920-1995	1976-1995

Resource Categories	Historical Description Period	Affected Environment Description Periods
Municipal and industrial water supply economics	1920-1995	1986-1995
Flood control economics	1920-1995	1986-1995
Fish, wildlife, and recreation economics	1967-1995	1986-1995
Regional economics	1967-1995	1986-1995
Power production and energy	1960-1995	1986-1995
Recreation resources	1940-1995	1986-1995
Visual resources	1940-1995	1995
Cultural resources	pre-1920s	1995
Public health and environmental hazards	1967-1995	1995
Utilities and public services	1967-1995	1995

Describing existing conditions for the Programmatic EIR/EIS, which will serve as one of the baselines for impact analysis, requires development of operational and regulatory assumptions for use in DWRSIM modeling. An explanation of the criteria and assumptions used is presented as Appendix A. As part of developing the No-Action Alternative (discussed in detail below), CALFED completed an extensive process to develop these assumptions. Table 2 lists the criteria and assumptions that have been developed for the affected environment/existing conditions.

NO-ACTION ALTERNATIVE

There are two elements needed to describe the No-Action Alternative for the Programmatic EIR/EIS: major water resource projects that would most likely move forward regardless of the outcome of CALFED, and operational and regulatory assumptions associated with the operation of the California water system and regulations that affect the demand for and use of water in California. As described in the "Introduction", CALFED has undertaken an extensive analysis and coordination effort to determine and describe these elements.

PROJECTS TO BE INCLUDED IN THE NO-ACTION ALTERNATIVE

To develop the No-Action Alternative, CALFED needed to determine which actions proposed by other agencies and parties were appropriate to include in these analyses. CALFED recognized that there were many potential actions in various stages of approval that needed to be addressed and developed a process (outlined in the May 20, 1996 report listed above) to identify appropriate screening criteria for all major potential actions that could conceivably be included in the No-Action Alternative and cumulative impact analysis. A description of this process was distributed for review and comment. Once this process was finalized, CALFED created a list of potential actions from a variety of sources, including a list developed for similar purposes as part of the Central Valley Project Improvement Act (CVPIA) process. CALFED then prepared materials for a July 11, 1996 workshop held to provide information to the public and stakeholders regarding actions CALFED initially believed should be in the No-Action Alternative. Proposed project screening criteria were presented and CALFED suggested their use in determining whether projects and actions by other agencies and parties should be included in the No-Action Alternative or excluded from the CALFED process because they were too undefined or speculative. Approximately 50 representatives from the public, agencies, and stakeholders attended the workshop.

Using the information received at the workshop and based on further research, CALFED published a draft report on September 18, 1996 that described all of the projects being considered for inclusion in the No-Action Alternative and provided the final criteria for screening these projects. The September 18, 1996 report was distributed for review and comment. Based on comments received, a final report was published on December 31, 1996 describing the results of the project screening process. Table 3 lists the screening criteria that were used to determine whether a particular project should be included in the No-Action Alternative, and Table 4 provides a list of the projects that met all of the screening criteria and that will, therefore, be included in the No-Action Alternative.

Table 3. Criteria Used to Define the No-Action Alternative

Criteria	Discussion
Criterion 1: Has the action been approved for implementation?	To be included in the No-Action Alternative, implementation of the action must have been approved by the project sponsor or by the ultimate authorizing agency. In the case of a construction-related project, this approval must include authorization for design and construction.
Criterion 2: Does the action have funding for implementation?	To be included in the No-Action Alternative, an action must have sufficient approved funding to provide for its implementation.
Criterion 3: Does the action have final environmental documents?	This criterion would be satisfied if all environmental documents and approvals necessary for implementation of the action have been completed.
Criterion 4: Does the action have final environmental permits and approvals?	This criterion would be satisfied if all final major permits and approvals (e.g., a Section 404 Permit or Endangered Species Act compliance) necessary to implement the action have been obtained.
Criterion 5: Will the action be excluded from the CALFED actions?	Actions that will be included in the action alternatives for CALFED will not be included in the No-Action Alternative. A comparison of the action alternatives with the No-Action Alternative would be distorted if an action were included in both.
Criterion 6: Would the effects of the action be identifiable at the level of detail being considered for CALFED analysis?	If a project's effects would be undetectable or minor in the programmatic impact analysis, the project need not be included in the No-Action Alternative. For example, if a project to be implemented by a water user could change localized conditions near the project but would not affect regional conditions, or if those changes would be minor, the action may not need to be included in the No-Action Alternative. This criterion is intended to avoid inclusion of actions that would not materially affect the outcome of the CALFED alternatives analysis.

Table 4. Projects Included in the No-Action Alternative

Project
Coastal Aqueduct
CVPIA - dedication of 800,000 acre-feet, and a portion of the Level IV refuge water, <i>Shasta</i>
Interim Reoperation of Folsom Reservoir
Kern Water Bank (phases already completed or under construction)
Los Vaqueros Reservoir Project
Metropolitan Water District - Eastside Reservoir Project
Metropolitan Water District - Inland Feeder Project
Monterey Agreement
New Melones Conveyance Project
Sacramento River Flood Control System Evaluation (partial)
Sacramento-San Joaquin Delta Levees Subvention Project
Semitropic Water Storage District/Metropolitan Water District - Semitropic Groundwater Banking Project
Shasta Temperature Control Device
Stone Lakes National Wildlife Refuge
Trinity River Restoration Program

OPERATIONAL AND REGULATORY ASSUMPTIONS FOR THE NO-ACTION ALTERNATIVE

As described in the "Introduction" section, CALFED held meetings with agency and stakeholder representatives on September 27, October 11, and November 15, 1996 to help determine appropriate assumptions to be used in developing the No-Action Alternative for the Programmatic EIR/EIS. The initial purpose of these meetings was to help CALFED determine appropriate assumptions to be used in DWRSIM modeling of the No-Action Alternative. Because of the interrelated nature of assumptions needed for DWRSIM modeling and those needed to generally develop the No-Action Alternative, the meetings evolved into a discussion of major assumptions for the No-Action Alternative.

During the three meetings, CALFED presented initial-draft assumptions for the No-Action Alternative. Each of these assumptions were discussed at length and either a general consensus was reached or the item was carried forward to the next meeting. At subsequent meetings, CALFED prepared and conducted a more detailed discussion of the items carried forward and discussed additional assumptions for the No-Action Alternative. All information presented or discussed was documented in meeting minutes. Table 5 lists the major operational criteria and assumptions that were developed for the No-Action Alternative during these meetings. Appendix A provides a brief explanation of these criteria and assumptions.

Table 5. Operational and Regulatory Criteria and Assumptions
for the No-Action Alternative

Criteria/Assumptions	CALFED Preliminary Existing Conditions	CALFED Preliminary No-Action Alternative
Level of development	1995	2020
Delta standards	1995 WQCP ²	1995 WQCP
American River standards	CVPIA flow criteria ³	CVPIA flow criteria
Sacramento River standards	Winter-run/CVPIA flow criteria	Winter-run/CVPIA flow criteria
Banks export	6,680 cfs	6,680 cfs
Tracy export	4,600 cfs	4,600 cfs
Folsom Reservoir operations	400-670 TAF	400-670 TAF
COA ¹	Existing	Existing
Trinity River flows	340 TAF in all years	340 TAF in all years ⁴
Monterey Agreement	In place	In place
CVP demands	6.1 MAF	6.5 MAF
SWP demands	2.6-3.6 MAF	4.1 MAF
Refuge demands	Level II	Level IV
Responsibility for meeting Delta standards	CVP/SWP	CVP/SWP
Tuolumne River flows	New FERC flows	New FERC flows
Mokelumne River flows	1961 DFG agreement	Newly-negotiated flows under signed Principles of Agreement
Contract renewals	Assume renewal pursuant to existing contracts	Same as existing conditions
Contract amounts	Assume that all contracts will be renewed at current quantities; deliveries will be limited by existing facilities and regulatory constraints	Same as existing conditions

Criteria/Assumptions	CALFED Preliminary Existing Conditions	CALFED Preliminary No-Action Alternative
Water rights	Assume full delivery of senior water rights	Same as existing conditions
Water conservation	Assume systemwide water conservation levels as generally outlined in DWR Bulletin 160-93	Same as existing conditions
CVP and SWP operations	Assume continued operations pursuant to the 1992 CVP operating criteria and procedures and current SWP operational criteria	Same as existing conditions
Land retirement	Assume existing agricultural acreage	Assume that 45,000 acres are retired by 2020, consistent with Bulletin 160-93
Power production	Assume, for modeling, that power is produced incidental to other operations	Same as existing conditions
Red Bluff Diversion Dam operations	Assume existing operations of the dam	Same as existing conditions
Water contract rate setting	Assume existing rate-setting policies	Same as existing conditions
Delta barriers	Assume existing practices for placing Delta barriers	Same as existing conditions
Flood control	Assume existing flood control policies	Same as existing conditions
Drinking water regulations	Assume existing drinking water policies and regulations	Assume existing drinking water policies and regulations. ⁵
Groundwater regulations	Assume existing groundwater regulation policies	Same as existing conditions
Agricultural crop subsidies	Assume current agricultural crop subsidies	Assume elimination of agricultural crop subsidies by 2020

Criteria/Assumptions	CALFED Preliminary Existing Conditions	CALFED Preliminary No-Action Alternative
Endangered-species listings	Assume current listed species	Assume no new listings of species

¹ COA sharing formula is based on operations under D-1485, not the 1995 WQCP. If changes are defined in the future, adjustments may be made.

² To address recent changes in the regulatory framework, CALFED is considering analysis of these changes that occurred between D-1485 and the 1995 WQCP.

³ CALFED will also conduct a sensitivity analysis to assess potential increased demands on the American River system.

⁴ Trinity River flows are the subject of a separate study. CALFED will conduct a sensitivity analysis to assess effects of other potential flow regimes.

⁵ In addition, CALFED will examine the results of work in progress by CUWA.

NOTE: TAF=thousand acre-feet
MAF=million acre-feet
CUWA=California Urban Water Agencies

CUMULATIVE IMPACT ANALYSIS

The approach used to develop projects to be included in the cumulative impact analysis is similar to that described above for the No-Action Alternative. CALFED proposed screening criteria in the May 20, 1996 report to help determine which projects being proposed by others were not sufficiently defined to be included in the No-Action Alternative, but which were still "reasonably foreseeable" and should therefore be included in the cumulative impact analysis. These criteria were also presented and discussed at the July 11, 1996 workshop and in the September 18, 1996 report.

The approach used by CALFED was to create a list of projects that were first compared with the screening criteria developed for the No-Action Alternative. Actions that met all of those criteria were included in the No-Action Alternative and were not further considered separately for inclusion in the cumulative impact analysis. Actions that did not meet all of the screening criteria for the No-Action Alternative were then screened for inclusion in the cumulative impact analysis. The actions meeting the cumulative impact analysis screening criteria will be included in the cumulative impact analysis. The cumulative impact analysis screening criteria are listed in Table 6. Projects meeting the cumulative impact analysis screening criteria and that will therefore be included in the cumulative impact analysis are listed on Table 7.

Table 6. Screening Criteria for Inclusion in the Cumulative Impact Analysis

Criteria	Discussion
Criterion 1: Is the action under active consideration?	Active consideration is defined as having current funding and staff support for planning and design.
Criterion 2: Does the action have recently-completed environmental documentation or are environmental documents in some active stage of completion?	This criterion is intended to eliminate actions that have been under consideration for a long period of time but for which no recent effort has been undertaken that would allow a reasonable projection for completion.
Criterion 3: Would the action be completed and operating within the timeframe being considered for CALFED (assumed to be 2020)?	
Criterion 4: Does the action, in combination with the CALFED action alternatives, have the potential to affect the same resources?	This criterion is intended to exclude actions that meet the other criteria, but that have little or no potential to result in cumulative impacts.

Table 7. Projects Included in the Cumulative Impact Analysis

Project
American River Water Resources Investigation
American River Watershed Project
CVPIA (except 800,000 acre-feet and a portion of the Level IV refuge water) <i>the State's Temp credit</i>
Contra Costa Pumping Plant Modification
Delta Wetlands Project
Folsom South Canal Connection Project
Interim South Delta Program
Montezuma Wetlands Project
Pardee Reservoir Enlargement Project
Red Bluff Diversion Dam Fish Passage Program
Refuge Water Supply Study
Sacramento River Flood Control System Evaluations
Sacramento Water Forum Process
