THE CALFED PROGRAMMATIC DECISION
April 6, 1999

The CALFED Agencies are developing a long-term comprehensive plan to restore ecological health and improve water management for beneficial uses of the Bay-Delta System. In order to successfully achieve this goal, the CALFED Program seeks to restore ecological health, improve water quality, improve water supply reliability and ensure levee and channel integrity. The CALFED Agencies Programmatic Decision includes the following:

- A description of the preferred programmatic alternative for the Programmatic EIS/EIR;
- A strategy for implementing the Program including the necessary financing and assurances; and
- A description of the near term goals and actions necessary to assure successful implementation beginning immediately following certification and adoption of the Record of Decision (Early Implementation Bundles).

Following is a description of the preferred programmatic alternative as required for the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

~~The Preferred Program Alternative consists of a set of broadly described programmatic actions which set the long-term, overall direction of the CALFED Program. It includes specified decision-making processes and criteria to ensure that future actions meet the Program's goals and objectives, and is based on a staged implementation process. Possible actions for future implementation are identified and linked with certain conditions or other mechanisms to guide decisions on these future stages. These mechanisms include agreements among agencies and stakeholders which establish a method to ensure that the Program will continue to meet the goals and objectives of the Program, and at the same time, allows the flexibility to assess the effects of previous actions, incorporate new scientific information as it becomes available, and base future decisions on this new information.~~

~~CALFED's program purpose, to develop and implement a long-term comprehensive plan that will restore ecological health and improve water management for beneficial use of the Bay-Delta system, requires an integrated approach to the conflicts that exist between beneficial uses and resources in the Bay-Delta. To accomplish that purpose, the draft Preferred Program Alternative begins with strategies to achieve improvements in the four interrelated problem areas: ecosystem health, water quality, levee system integrity, and water supply reliability. These strategies are interwoven, and each must be viewed in the context of the other strategies. Each of these strategies utilizes the concept of adaptive management (monitoring, assessment and research) as a tool for continuous refinement of Program actions. The information generated from monitoring, assessment, and research will be used to assess the effectiveness of existing actions, to guide additional research and to modify the actions of each of the CALFED programs to improve CALFED's ability to meet its goals and objectives.~~

~~The Preferred Program Alternative is made up of eight interrelated elements covering the four problem areas which will be implemented in stages over the next several decades. The~~

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~~Program elements are Levee System Integrity, Water Quality, Ecosystem Restoration, Water Use Efficiency, Water Transfers, Watershed, storage facilities (ground and surface water) and a series of through-Delta conveyance actions in both the north and south Delta. The Program actions within each of these elements will be refined and modified as new information developed through the adaptive management process is integrated into the framework, and will in turn serve as the basis for second tier decisions as the Program is implemented in Phase III.~~

PREFERRED PROGRAMMATIC ALTERNATIVE

Levee System Integrity Program

The focus of the Levee System Integrity Program is to improve levee stability. There are five main parts to the levee program:

- Delta Levee Base Level Protection Plan - Base level funding to participating local agencies in the Delta will provide for reconstruction and maintenance of Delta levees to the PL 84-99 standard.
- Delta Levee Special Improvement Projects - Funding for special habitat improvement and levee stabilization projects to augment base-level funding for projects which provide additional benefits to the ecosystem, water supply, water quality, economy, and the Delta infrastructure.
- Delta Levee Subsidence Control Plan - Implement current best management practices (BMPs) to correct subsidence adjacent to ~~on~~ levees and coordinate research in order to quantify the effects and extent of inner-island subsidence.
- Delta Levee Emergency Management and Response Plan - The emergency management and response plan will build on existing state, federal, and local agency emergency management programs.
- Delta Levee Risk Assessment- The risk assessment will identify and increase the understanding of the major risks to Delta resources such as floods, seepage, subsidence and earthquakes and develop recommendations to manage the risk.
- Suisun Marsh Levees- Rehabilitate Suisun Marsh levees. ~~A maximum of 230 miles of Suisun Marsh levees will be rehabilitated.~~

Water Quality Program

The CALFED Program is committed to achieving continuous improvement in the quality of the waters of the Bay-Delta System with the goal of minimizing ecological, drinking water and other water quality problems, and to maintaining this quality once achieved. The Water Quality Program includes the following actions:

- Drinking water parameters - Reduce the loads and/or impacts of bromide, total organic carbon, pathogens, nutrients, salinity, and turbidity through a combination of measures that include source reduction, alternative sources of water, treatment, storage and conveyance improvements.
- Pesticides - Reduce the impacts of pesticides through (1) development and implementation of BMPs, for both urban and agricultural uses; and (2) support of pesticide studies for regulatory agencies, while providing education and assistance in implementation of control strategies for the regulated pesticide users.

- Organochlorine pesticides - Reduce the load of organochlorine pesticides in the system by reducing runoff and erosion from agricultural lands through BMPs.
- Trace metals - Reduce the impacts of trace metals, such as copper, cadmium, and zinc, in upper watershed areas near abandoned mine sites. Reduce the impacts of copper through urban storm water programs and agricultural BMPs.
- Mercury - Reduce mercury levels in rivers and the estuary by source control at inactive and abandoned mine sites.
- Selenium - Reduce selenium impacts through reduction of loads at their sources and through appropriate land fallowing and land retirement programs.
- Salinity - Reduce salt sources in urban and industrial wastewater to protect drinking and agricultural water supplies, and facilitate development of successful water recycling, source water blending, and groundwater storage programs.
- Turbidity and sedimentation - Reduce turbidity and sedimentation, which adversely affect several areas in the Bay Delta and its tributaries.
- Low dissolved oxygen - Reduce the impairment of rivers and the estuary from substances that exert excessive demand on dissolved oxygen.
- Toxicity of unknown origin - Through research and monitoring, identify parameters of concern in the water and sediment and implement actions to reduce their impacts to aquatic resources.

Ecosystem Restoration Program

The goal of the Ecosystem Restoration Program is to improve and increase aquatic and terrestrial habitats, ~~and~~ improve ecological functions in the Bay-Delta in order to support sustainable populations of diverse and valuable plant and animal species. Representative Ecosystem Restoration Program actions include:

- Restoring, protecting, and managing diverse habitat types representative of the Bay-Delta and its watershed.
- Restoring critical in-stream and channel-forming flows in Bay-Delta tributaries.
- Improving Delta outflow during key periods in spring.
- Reconnecting Bay-Delta tributaries with their floodplains through the construction of setback levees, the acquisition of flood easements, and the construction and management ~~and expansion~~ of flood bypasses for both habitat restoration and flood protection.
- Developing assessment, prevention and control programs for invasive species.
- Restoring aspects of the sediment regime by relocating in-stream and floodplain gravel mining, and by artificially introducing gravels to compensate for sediment trapped by dams.
- Modifying or eliminating fish passage barriers, including the removal of dams, construction of fish ladders, and construction of fish screens that use the best available technology.
- Targeting research to provide information that is needed to define problems sufficiently, and to design and prioritize restoration actions.

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Water Use Efficiency Program

~~The Water Use Efficiency Program reflects state constitutional mandates for reasonable and beneficial use of water: existing water supplies must be used efficiently, and any new water supplies that are developed by the Program also must be used efficiently.~~ The Water Use Efficiency Program includes actions to assure efficient use of ~~related to water conservation and water recycling~~ existing and any new water supplies developed by the Program. Water conservation-related actions include:

- Implement agricultural and urban conservation incentives programs to provide grant funding for water management projects that will provide multiple benefits which are cost-effective at the state-wide level, including improved water quality and reduced ecosystem impacts.
- Identify, in region-specific strategic plans for agricultural areas, measurable objectives to assure improvements in water management.
- Expand state and federal programs to provide increased levels of planning and technical assistance to local water suppliers.
- Work with the Agricultural Water Management Council (AWMC) to identify appropriate agricultural water conservation measures, set appropriate levels of effort, and certify or endorse water suppliers that are implementing locally cost-effective feasible measures.
- Work with the California Urban Water Conservation Council (CUWCC) to establish an urban water conservation certification process and set appropriate levels of effort in order to ensure that water suppliers are implementing cost-effective feasible measures.
- Help urban water suppliers comply with the Urban Water Management Planning Act.
- Identify and implement practices to improve water management for wildlife areas ~~wetlands~~.
- Gather better information on water use, identify opportunities to improve water use efficiency, and measure the effectiveness of conservation practices.
- Conduct directed studies and research to improve understanding of conservation actions.

Water recycling actions include:

- Help local and regional agencies comply with the water recycling provisions in the Urban Water Management Planning Act.
- Expand state and federal recycling programs to provide increased levels of planning, technical, and financing assistance (both loans and grants) and to develop new ways of providing assistance in the most effective manner.
- Provide regional planning assistance that can increase opportunities for the use of recycled water.

Water Transfer Program

The Water Transfer Program proposes a framework of actions, policies, and processes that,

collectively, will facilitate water transfers and the further development of a state-wide water transfer market. The framework also includes mechanisms to provide protection from third party impacts. The Water Transfer Program will include the following actions and recommendations:

- Establish a California Water Transfer Information Clearinghouse to provide a public informational role. The clearinghouse would 1) ensure that information regarding proposed transfers is publically disclosed and, 2) perform on-going research and data collection functions to improve the understanding of water transfers and their potential beneficial and adverse effects.
- Require water transfer proposals submitted to the Department of Water Resources, the U.S. Bureau of Reclamation, or the State Water Resources Control Board to include analysis of potential groundwater, socio-economic, or cumulative impacts as warranted by individual transfers (i.e., a temporary transfer of water stored in a reservoir is unlikely to have socio-economic effects, but a transfer that involves significant land fallowing most likely will).
- Streamline the water transfer approval process currently used by the Department of Water Resources, the U.S. Bureau of Reclamation, or the State Water Resources Control Board. This would include clarifying and disclosing current approval procedures and underlying policies as well as improving the communication between transfer proponents, reviewing agencies, and other potentially affected parties.
- Refine quantification guidelines used by water transfer approving agencies when they are reviewing a proposed water transfer. This will include resolving issues between stakeholders and approving agencies regarding the application of current agency-based quantification criteria.
- Improve the accessability of state and federal conveyance and storage facilities for the transport of approved water transfers.
- Clearly define carriage water requirements and resolve conflicts over reservoir refill criteria such that transfer proponents are acutely aware of the implications of these requirements. Solutions will be based on the principle of adaptive management which will allow for continued refinement of these requirements as information regarding their necessity improves.
- Identify appropriate assistance for groundwater protection programs through interaction with CALFED agencies, stakeholders, the legislature and local agencies. This is intended to assist local agencies in the development and implementation of groundwater management programs that will protect groundwater basins in water transfer source areas.
- Establish new accounting, tracking, and monitoring methods to aid instream flow transfers under California Water Code Section 1707.

Watershed Program

The Watershed Program provides assistance, financial and technical, to local watershed programs that benefit the Bay-Delta system. The Watershed Program includes the following

elements:

- Support local watershed activities - Implement watershed restoration, maintenance, and conservation activities that support the goals and objectives of the Program including improved river functions.
- Facilitate coordination and assistance - Facilitate and improve coordination and assistance between government agencies, other organizations, and local watershed groups.
- Develop watershed monitoring and assessment protocols - Facilitate monitoring efforts that are consistent with the CALFED's protocols and support watershed activities that ensure that adaptive management processes can be applied.
- Support education and outreach - Support resource conservation education at the local watershed level, and provide organizational and administrative support to watershed programs.
- Define watershed processes and relationships - Identify the watershed functions and processes that are relevant to the CALFED goals and objectives, and provide examples of watershed activities that could improve these functions and processes.

Storage

~~Storage will be developed and constructed as part of the Preferred Program Alternative, together with aggressive implementation of water conservation, recycling, and a protective water transfer market. Prior to constructing storage, additional decisions will be made predicated on:~~

- ~~Completion of the Integrated Storage Investigation which includes an assessment of groundwater storage, surface storage, re-operation of power facilities and a fish barrier assessment.~~
- ~~Demonstrated progress in meeting the Program's water use efficiency and water transfer program targets;~~
- ~~Implementation of groundwater monitoring and modeling programs: and~~
- ~~Completion of a Clean Water Act Section 404 Memorandum of Agreement between the U.S. EPA, U.S. Army Corps of Engineers, and CALFED~~

~~The Preferred Program Alternative includes a combination of types of storage facilities, both surface and groundwater storage. The total volume assessed for this alternative included a range from zero to million acre feet. These various storage facilities are being considered for the Sacramento and San Joaquin Valleys, and for the Delta.~~

New storage will be developed and constructed, together with aggressive implementation of water conservation, recycling and a protective water transfer market, as appropriate to meet CALFED Program goals. During Stage 1, CALFED will evaluate and determine the appropriate mix of surface water and groundwater storage, identify acceptable projects and initiate permitting and construction if program linkages and conditions are satisfied.

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Decisions to construct storage will be predicated upon complying with all program linkages, including:

- Completion of the Integrated Storage Investigation which includes an assessment of groundwater storage, surface storage, re-operation of power facilities and a fish barrier assessment;
- Demonstrated progress in meeting the Program's water use efficiency, water reclamation and water transfer program targets;
- Implementation of groundwater monitoring and modeling programs; and
- Compliance with all environmental review and permitting requirements.

The total volume of surface and groundwater storage being assessed for this alternative range up to 6.25 million acre feet, and facility locations being considered are located in the Sacramento and San Joaquin Valleys and in the Delta.

Conveyance

The through-Delta conveyance facility actions include:

- construction of a new screened intake at Clifton Court Forebay with protective screening criteria;
- construction of either a new screened diversion at Tracy with protective screening criteria; and/or an expansion of the new diversion at Clifton Court Forebay to meet the Tracy Pumping Plant export capacity;
- implementation of the Joint Point of Diversion for the SWP and CVP, and construction of interties;
- construction of an operable barrier at the head of Old River to improve conditions for salmon migrating up and down the San Joaquin River;
- construction of operable barriers, or their equivalent, to maintain water stage and water quality in south Delta channels;
- operational changes to the SWP operating rules to allow export pumping up to the current physical capacity of the SWP export facilities
- determination of operating criteria for the Delta Cross Channel;
- Study and evaluate a screened diversion structure on the Sacramento River. This evaluation would consider how to operate the Delta Cross Channel in conjunction with this new diversion structure to achieve the optimum balance between improving Delta water quality while maintaining a fishery recovery strategy ~~minimizing adverse fishery impacts~~.
- If the evaluation indicates that a screened diversion would help achieve CALFED's goal to provide good water quality for all beneficial purposes, and can be operated without adversely impacting fishery populations in the Delta, a pilot diversion structure including pumps and a channel between the Sacramento and the Mokelumne Rivers would be constructed. This pilot facility would be evaluated in conjunction with the DCC operations. The capacity of the pilot facility would be sized through a more detailed analysis, but a maximum capacity of 4000 cfs will be considered. Following evaluation of pilot facility operations,

a final decision would be made on whether the diversion channel and structure should continue to be used, and if so, what the operational rules and optimum size of the diversion should be.

- Construct new setback levees or dredging along the Mokelumne River from Interstate 5 downstream to the San Joaquin River.

~~[Note: A maximum diversion of 4000 cfs is being considered in this evaluation. Deliberations of DEFT revealed a prevailing belief among CALFED agency fishery experts that diversions of a significant portion of Sacramento River flows would cause significant adverse fishery impacts. A diversion capacity of 4000 cfs is estimated as a maximum that might be workable. Additional evaluation might reveal that a smaller capacity diversion is optimal.]~~

The Preferred Program Alternative also includes a process for determining the conditions under which any additional conveyance facilities and/or other water management actions would be taken in the future. The process would include:

- An evaluation of how water suppliers can best provide a level of public health protection equivalent to Delta source water quality of 50 ppb Bromide and 3 ppm TOC.
- An evaluation based on independent expert panels' reports–one on CALFED's progress toward these measurable water quality goals and the second on CALFED's progress toward ecosystem restoration objectives, with particular emphasis on fisheries recovery.

IMPLEMENTATION STRATEGY TO BE ADDED SHORTLY

NEAR-TERM IMPLEMENTATION STRATEGY TO BE ADDED SHORTLY

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