



CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: CALFED Bay-Delta Program Programmatic Environmental Impact Statement/Environmental Impact Report

MEETING DATE: May 20, 1998

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That the City Council adopt a resolution providing City comments on the CALFED Bay-Delta Program Programmatic Environmental Impact Statement/Environmental Impact Report (EIS/EIR).

BACKGROUND INFORMATION: The State of California and the Federal government (CALFED) have jointly prepared a programmatic EIS/EIR on a variety of programs and projects to "... develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system", as stated in their mission statement. The multi-volume document consists of thousands of pages of text, tables and graphics. The tremendous scope of the program makes it very difficult to summarize, but we have attempted to do so by attaching the following exhibits:

- A) Program and alternatives descriptions from CALFED's Phase II Interim Report - this includes selected pages describing the alternatives and information on the water-quality and conveyance portions of the project;
- B) Summary Comparison of the Environmental Consequences - this includes a table estimating farmland acreage impacts;
- C) "The Delta Fix" - a summary of the program prepared by the California Water Clearinghouse;
- D) Excerpts from a newsletter from the Associations of California Water Agencies, a supporter of the program; and
- E) Commentary on the program from the "California Planning and Development Report" presenting some critical viewpoints on the program.

A verbal presentation will also be made at the Council meeting.

FUNDING: None required.

Richard C. Prima, Jr.
Public Works Director

RCP/lm

Attachments

APPROVED: _____

Janet S. Ketter for
H. Dixon Flynn -- City Manager

CALFED BAY-DELTA PROGRAM MISSION STATEMENT AND SOLUTION PRINCIPLES

The mission of the CALFED Bay-Delta Program is to develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system.

In addition, any CALFED solution must satisfy the following solution principles:

- *Reduce Conflicts in the System* Solutions will reduce major conflicts among beneficial uses of water.
- *Be Equitable* Solutions will focus on solving problems in all problem areas. Improvements for some problems will not be made without corresponding improvements for other problems.
- *Be Affordable* Solutions will be implementable and maintainable within the foreseeable resources of the Program and stakeholders.
- *Be Durable* Solutions will have political and economic staying power and will sustain the resources they were designed to protect and enhance.
- *Be Implementable* Solutions will have broad public acceptance and legal feasibility, and will be timely and relatively simple to implement compared with other alternatives.
- *Have No Significant Redirected Impacts* Solutions will not solve problems in the Bay-Delta system by redirecting significant negative impacts, when viewed in their entirety, within the Bay-Delta or to other regions of California.

Agricultural Land Conversion in the Delta - Agricultural land conversion in the Delta resulting from the Program is limited to that needed for implementation of levee system improvements, ecosystem restoration, and other facilities. Possible land area in the Delta affected by Program implementation could range from approximately 140,000 to 200,000 acres, depending on the alternative. Some of this land is already owned by the government, and other possibilities such as the reclamation of Franks Tract will be considered prior to converting prime agricultural land. CALFED seeks to preserve as much prime and unique agricultural land as possible during Program implementation in Phase III. To offset Delta regional agricultural production losses, CALFED is investigating the concept of supporting efforts to preserve agricultural production on a regional or statewide basis.

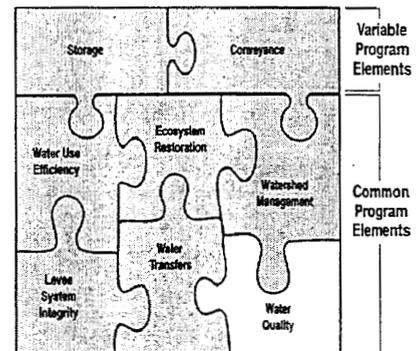
Agricultural Land Conversion in Service Areas - Agricultural land conversion in the service areas (areas served water by the SWP and the CVP) is included in the CALFED alternatives as a potential measure to improve water quality by reducing discharges from drainage lands with selenium problems. The CALFED policy is not to convert land to reduce water demands. However, depending on water supply and water transfer opportunities available in the various alternatives, farmers may choose to change cropping patterns, temporarily fallow land, or permanently take land out of agricultural production. Program implementation will require some land conversion to accommodate new facilities or restoration activities. Possible land area in the service areas affected by Program implementation of facilities, ecosystem restoration and water quality could range from approximately 75,000 to 140,000 acres, depending on the alternative. Third party impacts of such actions will be carefully evaluated and taken into consideration.

- continued maintenance of levees to protect Delta functions
- Ensures suitable funding, equipment and materials availability, and coordination to rapidly respond to levee failures
- Subsidence reduction helps long-term Delta system integrity
- Increased reliability for water supply needs from the Delta and in-Delta water quality
- Increased reliability for in-Delta land use
- Increased reliability for in-Delta aquatic and wildlife habitat

For more information see the *Long-Term Levee Protection Plan Appendix* to the Draft Programmatic EIS/EIR.

Water Quality Program

The draft Water Quality Program currently includes 25 programmatic actions to further the Program's goal of providing good water quality for environmental, agricultural, drinking water, industrial, and recreational beneficial uses of water. The majority of these actions rely on comprehensive monitoring and research to improve our understanding of effective water quality management and on the ultimate control of water quality problems at their sources.



Determining impairment to a water quality beneficial use is always a difficult and complicated matter. For some beneficial uses, such as drinking water use and agricultural water use, water quality impacts on use are generally well known. For other beneficial uses such as ecosystem use, water quality impacts on species are not understood as well. As a result, the program has relied on the technical expertise of a variety of stakeholders representing beneficial uses. The 25 water quality actions include a combination of research, pilot studies, and targeted activities. This approach allows actions to be taken on known water quality problems and sources of those problems, while allowing further research of potential problems and solutions. Actions will be adapted over time to ensure the most effective use of resources.

In summary, the draft Water Quality Program element includes the following broad categories of programmatic actions:

- **Mine drainage** - Reduce heavy metals, such as cadmium, copper, and zinc, by source control or treatment of mine

Further research is needed for some water quality problems.

For example, for some parameters of concern, such as mercury, not enough is understood about its sources, the bioavailability of mercury to various species, factors contributing to its bioavailability, and the load reductions needed to reduce fish tissue concentrations necessary for human consumption.

drainage at inactive and abandoned mine sites.

- **Urban and Industrial Runoff** - Reduce heavy metals, pesticides, nutrients, and sediment and subsequent turbidity. Evaluate loadings of total organic carbon (TOC), salinity, and pathogens in urban runoff and assess the need for source control measures to reduce these parameters of concern to drinking water beneficial uses.

Water Quality Program Issues and Concerns

- There are differing opinions regarding the most effective program approach: a regulatory framework to enforce the objectives versus an incentive-based or "safe harbor" approach to encourage voluntary partnerships to reduce non-point sources.
- This element needs to be better integrated with other parts of the Program, including ecosystem restoration and water use efficiency.
- There is concern that this program element is not sufficiently aggressive or adequately developed to accomplish more than current water quality efforts.
- There are differing views on the specific drinking water quality targets as well as on the means to achieve drinking water quality objectives (providing the highest quality source water versus relying upon treatment methods). A cost comparison is also needed.
- There is disagreement over whether the program should include dilution-oriented actions.

- **Wastewater and Industrial Discharge** - Reduce pathogens (from boat discharges), oxygen depleting substances, selenium, and ammonia. Evaluate the loadings of TOC, salinity, and pathogens from wastewater and industrial treatment plant discharges and assess the need for source control measures to reduce these parameters of concern to drinking water beneficial uses.
- **Agricultural Drainage and Runoff** - Reduce selenium (agricultural subsurface drainage), salinity, pesticides, sediment, TOC (discharges from Delta islands), nutrients and ammonia, and pathogens (controlling inputs from rangelands, dairies, and confined animal facilities).
- **Water Treatment** - Reduce formation of disinfection by-products by controlling TOC, pathogens, turbidity, and bromides.
- **Water Management** - Use water management techniques and improved outflow

patterns and water circulation in the Delta region to control salinity levels.

- **Human Health** - Reduce impairment of recreational beneficial uses within the Delta due to human health concerns associated with consumption of fish and shellfish containing elevated levels of DDT, chlordane, toxophene, mercury, and PCBs and their derivatives by research/monitoring and source control.
- **Toxicity of Unknown Origin** - Through research/monitoring identify parameters of concern in the water and sediment within the Delta, Bay, Sacramento River and San Joaquin River regions and implement actions to reduce their toxicity to aquatic organisms.

The water quality program will remain relatively unchanged among the alternatives but its performance can vary significantly depending on the other Program elements. Storage can help timing for release of pollutants remaining after source control efforts. Improved conveyance to south Delta export pumps will improve water quality for those diversions but may decrease quality for in-Delta diversions. Water use efficiency measures can improve water quality entering the Delta by reducing some agricultural drain water containing pollutants.

Potential benefits of the water quality program include:

- Improves Delta water quality by reducing the volume of urban and agricultural runoff/drainage and concentration of pollutants entering the Delta
- Improves water quality for the ecosystem by reducing toxicants as a limiting factor
- Improves drinking water quality and public health benefits
- Reduces concentration of compounds contributing to trihalomethane formation potential and degradation of drinking water supplies

Water Quality Program
Facts and Figures

- Remains relatively unchanged between alternatives.
- Provides critically needed reduction of toxics for fisheries and an important reduction in organic carbon to improve drinking water.
- **Does not address health concerns associated with bromide without other Program elements.**
- Could exceed \$0.75 billion over 20-30 years. May require annual investment exceeding \$25 million.

For more information see the *Water Quality Program Appendix* to the Draft Programmatic EIS/EIR.

Conveyance Issues and Concerns

- Objective consideration of a new Delta channel (or isolated facility) may not be possible due to the political stigma resulting from the peripheral canal debate in the early 1980s.
- Consideration of major conveyance modifications requires significant assurances.
- There is concern over potential deterioration of in-Delta water quality if an isolated facility is built. A more thorough evaluation of in-Delta water quality impairments of each conveyance configuration is needed. In particular, there are unknowns related to reduced inflows into the northern Delta.
- The analysis on the impacts of each conveyance configuration on fish entrainment, Delta flow circulation, and drinking water needs further refinement.
- There is concern that support for the levee restoration program would wane if an isolated facility were built.
- Some stakeholders believe that an isolated facility should only be considered as part of a staged alternative or in the context of linked implementation; the facility would not be constructed until certain milestones had been achieved (such as in transfers and water use efficiency).
- Some stakeholders view an isolated facility as essential to improving water supply reliability. Strong assurances must be developed for water suppliers due to the long lead time to develop new storage.

Additional exports are expected from the Delta in the future as statewide demands for water increase. Currently, the combined physical capacity of SWP and CVP export facilities in the southern Delta is approximately 15,000 cfs. However, a U.S. Corps of Engineers permit limits exports through the SWP export facility to 6,680 cfs, except during some winter months when marginal increases are allowed. The CVP has a capacity of 4,600 cfs.

Description of the Three Alternatives

Based on the analyses described above, CALFED developed the three alternatives to help move towards a preferred program alternative. They represent the “best” alternatives for each of the three main categories. Each alternative includes the six common Program elements plus storage and conveyance. The three alternatives fall within the range of the twelve alternative variations evaluated in the Programmatic EIS/EIR.

The operation of storage and conveyance facilities in the Bay-Delta system has a significant effect on all CALFED Bay-Delta Program resource categories, including water supply reliability, ecosystem health, water quality, and levee system vulnerability. These existing facilities include numerous reservoirs upstream of the Delta, diversion facilities for local and export water use on the Sacramento and San Joaquin River systems, the Delta Cross-Channel, and the Delta export facilities of the SWP and CVP.

The following brief overview of operating criteria considerations applies to each of the three alternatives. Each alternative description later in this chapter includes information on operating criteria used in the analyses.

Operating Criteria

A variety of protective measures, implemented under authorities such as the State Water Resources Control Board Bay-Delta Water Quality Control Plan and the federal Endangered Species Act Biological Opinions for Winter-Run Salmon and Delta Smelt, govern operation of storage and conveyance facilities that affect the Bay-Delta system. Together, these protective measures are known as the Bay-Delta standards.

Bay-Delta standards are not static -- as the health of the Bay-Delta has declined over the past several decades and the demand for water supplies from the Bay-Delta system has grown, progressively more protective standards have been implemented. Existing Bay-Delta standards were developed to provide environmental and water quality protection with today's levels of demand for Bay-Delta water supplies in mind. The expected increases in demand for water over the next twenty to thirty years will undoubtedly trigger changes in standards to maintain adequate protections. If new storage and conveyance facilities were constructed as a component of the CALFED Bay-Delta Program, new protective measures would be implemented to address their operation.

Many factors could affect future conditions in the Delta, including population growth and land use changes, technological developments affecting water use and water treatment, advancements in scientific understanding of biological processes, introduction and incursion of exotic species in the Bay-Delta system, and ocean conditions for anadromous fish. All of these factors could affect the ultimate performance or the time required to achieve a high level of success of the integrated Bay-Delta Program elements under any alternative. Ultimately, the health of the Bay-Delta will drive changes in Bay-Delta standards.

CALFED recognizes the critical role of the regulatory framework in the overall “assurances” package associated with this program. Given the importance of the regulatory regime to parties on all sides, it is important to clarify that CALFED is not proposing changes to Bay-Delta standards. Assumptions for operating new storage and conveyance facilities considered in the Program alternatives were made only to aid in the evaluation of the alternatives – no specific changes in Bay-Delta standards are proposed or endorsed by CALFED agencies through this evaluation. As information is developed during the course of implementing the Program, this information will be provided to regulatory agencies for appropriate consideration. Changes in Bay-Delta standards will be made, if at all, by the appropriate agencies in accordance with applicable laws and consistent with any agreements in the CALFED assurances package.

In modeling the three alternatives described below, CALFED first evaluated operations using existing regulations, modified only to account for operations of the new storage and conveyance facilities considered in each alternative. Specific assumptions regarding operating criteria are included in the following descriptions of the Program alternatives. For analytical purposes only, and in recognition of the potential for changes in Bay-Delta standards over the term of the Program, CALFED performed a “sensitivity analysis” of the three alternatives with respect to hypothetical changes in the regulatory regime. This was not a formal “sensitivity analysis” in a technical sense, but was simply a rough consideration of how the modeled water supply results changed when applicable standards changed. These hypothetical changes were chosen in part for modeling simplicity, and are not intended to represent a consensus as to whether or how standards could be strengthened or relaxed in the future. For purposes of this sensitivity analysis, CALFED evaluated changes in two Bay-Delta standards that are generally recognized as the major regulatory “controls” on the operations of Delta export facilities – the “Export-Inflow Ratio” requirement and the Delta “X2” outflow requirement. Discussion of this sensitivity analysis, as it pertains to different aspects of alternative performance, is included as a sidebar in Chapter 4.

Additional details on operating assumptions *Modeling Assumptions and Results Appendix* to the Draft Programmatic EIS/EIR.

COMPARISON OF OPEN CHANNEL AND PIPELINE OPTIONS FOR ISOLATED FACILITY

Conveyance Types and Environmental Impacts - The 44-mile canal would generally consist of a trapezoidal section with gentle side slopes and a top width of around 600 feet and a depth 27 feet. The pipeline facility would consist of side-by-side buried concrete pipelines. The total distance of the pipeline route disturbed acreage is approximately the same as the canal alignment. The construction activities to bury the pipeline would disturb similar acreage as the canal. However, the buried pipelines would allow easier terrestrial access from one side of the alignment to the other.

Pumping Plants - Pumping plants would lift up to $10,000 \pm 2,000$ cfs into the conveyance facility. An open channel would utilize a single low operating head (10 feet) pumping plant and the pipeline would require a pumping plant with operating head of 150 feet. The increased operating lift would substantially increase operating and energy cost from around \$2 million per year for the canal option to around \$24 million per year (based on a power rate of 40 mills) for the pipeline option. Given that the site acreage for the two pumping plants are about the same there would little differences in environmental impacts between the two plants.

Water Crossings - In order to convey water across rivers and sloughs, the open canal would require 11 inverted siphons. The siphons would cross under four major rivers and seven sloughs. The pressurize buried pipeline would cross under the same waterways. The environmental impacts of these crossings would be similar for both alternatives.

Bridge and Utility Relocations - For the open canal, bridges would be constructed over the canal for all county roads, state highways, and railroad crossings. The pipeline will cross under the same facilities. The construction impacts of the two methods would be similar; however, the elevated bridges across the canal would have more visual impact than the buried pipeline.

Water Quality Protection - The buried pipeline is less vulnerable than an open canal to introduction of pollutants, such as those introduced by spills, storm water and agricultural runoff, and sabotage. Given that there is many miles of open water above the intake and miles of open water from the pipelines exit into Clifton Court Forebay to the point of use, the added benefit of this protection appears minor.

Safety - Both facilities would be designed to current safety standards and the safety components included in the project cost. There would be substantially less safety measures needed along the route of the buried pipeline than the open canal.

Seepage Protection - There would be insignificant, if any, seepage from the pipeline. Monitoring wells along the route of the canal would be installed to identify areas that may have excess and facilities such as seepage interception wells would be installed to protect adjacent lands from seepage problems.

Seismic - Both the canal and the pipeline would be designed to the California design code for seismicity. The cost for design and construction for seismicity are included in the cost estimate.

Right-of-Way - The right-of-way width for both conveyance methods is similar.

Costs Comparison - Preliminary capital cost for the canal conveyance is around \$1.4 Billion. The pipeline conveyance would be about \$2.4 Billion. In addition, the pipeline energy requirement is \$22 Million more per year than the canal.

Comparing the 1982 Peripheral Canal and CALFED Alternative 3

CALFED Alternative 3 includes dual Delta conveyance, using modified Delta channels and an isolated facility to convey water from the Sacramento River to the SWP and CVP pumping plants in the south Delta. How does this alternative compare to the 1982 proposal for a peripheral canal? Both include a new facility to move water around the eastern edge of the Delta, but that's where the similarity ends. The main differences include the scope of the programs, conveyance capacity and method, strategy to maintain in-Delta water quality, and impacts on local resources.

A big difference between the old peripheral canal and any of the CALFED alternatives is their scope. Each of the CALFED alternatives offers a comprehensive program to solve problems in the Bay-Delta system related to water supply reliability, water quality, ecosystem quality, and levee system integrity, with flood control improvements integrated with ecosystem restoration in both the north and south Delta. The peripheral canal was primarily intended to increase water project exports and reduce fish entrainment caused by these exports.

The old peripheral canal had a proposed capacity of 23,000 cfs. Among the variations of Alternative 3, only 3e approaches this magnitude of isolated conveyance with a 15,000 cfs diversion on the Sacramento River. The main benefits of the isolated facility in Alternative 3 are improvement in export water quality and a reduction in fish entrainment caused by Delta exports, rather than an increase in export water supply.

The CALFED alternatives would improve water quality with a broad range of actions that emphasize point and non-point source control. The through-Delta conveyance included in Alternative 3 would help maintain in-Delta water quality, although salinity levels would increase in some areas. The peripheral canal included a feature to discharge Sacramento River water from the canal into Delta channels to improve in-Delta water quality. This feature is not included in Alternative 3 because these releases could cause anadromous fish to stray from the Sacramento River into the Delta, a very serious environmental impact.

A final difference between CALFED's Alternative 3 and the old peripheral canal is the impact on local resources related to the way any new canal would cross existing Delta streams and channels. Construction of the peripheral canal would have blocked several existing waterways in the eastern Delta. This could have caused local drainage problems during high flows, and would have separated valuable habitat in the eastern Delta from the rest of the Delta ecosystem. Alternative 3 would prevent local drainage problems and maintain the connection of the aquatic ecosystem by using siphons to carry water in the isolated facility underneath existing Delta channels.

3 SUMMARY COMPARISON OF THE ENVIRONMENTAL CONSEQUENCES

The environmental consequences of the three CALFED program alternatives are summarized in Table 3-1, for each environmental resource category included in this Programmatic EIS/EIR. The affected environment and environmental consequences of the program alternatives are described in detail in Chapters 6, 7, and 8. The information in this table provides a brief synopsis and summary comparison of the adverse and beneficial impacts of the No Action Alternative and CALFED Program Alternatives 1, 2, and 3. In general, the impacts to each resource resulting

from the storage and conveyance program element would vary by alternative. The impacts resulting from program elements other than storage and conveyance would be less sensitive to the alternative selected. Therefore, in Table 3-1, the impacts associated with storage and conveyance are described separately for each alternative, and the other program elements are not grouped by alternative. For details of how each of the Program elements is affected by the various alternatives, please see Chapters 6, 7, and 8 of this Programmatic EIS/EIR.

Environmental Resource Category	ENVIRONMENTAL CONSEQUENCES OF CALFED BAY-DELTA PROGRAM ALTERNATIVES				
	No Action Alternative	Storage and Conveyance			Other Programs
		Alternative 1	Alternative 2	Alternative 3	
PHYSICAL ENVIRONMENT					
Surface Water Resources					
<i>Bay-Delta Hydrodynamics and Riverine Hydraulics</i>	Minor changes in stream flow in the rivers and Bay-Delta as a result of increased demand.	Small to moderate increases occur in mid-range Sacramento River flows due to increased releases from storage for 1C. Little change in Delta circulation patterns for 1A and 1B for Alternative 1, but increased south Delta pumping in 1C leads to small increases in magnitude of reverse flows in central Delta.	Small to moderate increases occur in mid-range Sacramento River flows due to increased releases from storage for 2B, 2D, and 2E. Potential reduction in through-Delta flow velocities (greater residence time) and reductions in frequency of reverse flows associated with changes in channel geometry and distribution of Delta inflow.	Small to moderate increases occur in mid-range Sacramento River flows due to increased releases from storage for 3B, 3E, 3H, and 3I. Reduction in north Delta inflow, reduced frequency of reverse flows in San Joaquin River, and substantially reduced influence of south Delta pumping on Delta circulation pattern.	Ecosystem Restoration pulse flows and Delta outflow targets result in potentially substantial short term increases in Sacramento River and San Joaquin River-flows during selected periods from March to May.
<i>Water Quality</i>	Gradual deterioration in Delta water quality.	Shift in timing of Delta inflow results in some improvements in Delta water quality for 1C. Improvements are offset by increased south Delta pumping. No change in water quality for configurations without storage component.	Reduction in salinity and bromide concentrations due to improved circulation pattern and shift in timing of Delta inflow with storage component. Water temperature may increase in east Delta from channel widening for habitat improvements. Temperature effects partially offset by shading.	Quality of water exported to SWP-CVP Area South of Delta improves substantially with isolated facility because water is taken from Sacramento River instead of Delta. Salinity increases, however, at Rock Slough.	The Ecosystem Restoration and Levee System Integrity programs significantly increase sediment loading and turbidity during construction and initial operation. Substantial potential benefits from source control measures of the Water Quality Program in all regions.

Table 3-1. Summary of Environmental Consequences of CALFED Program Actions (page 1 of 10)

Environmental Resource Category	ENVIRONMENTAL CONSEQUENCES OF CALFED BAY-DELTA PROGRAM ALTERNATIVES				
	No Action Alternative	Storage and Conveyance			Other Programs
		Alternative 1	Alternative 2	Alternative 3	
<i>Water Supply and Management</i>	Increased demand, no additional supply, and increased allocation to instream flows under results in increased unmet urban and agricultural demand.	Increased availability and reliability with 1C.	Increased availability and reliability with 2B, 2D, and 2E.	Increased availability and reliability for all 3B, 3E, 3H, and 3I. In addition, isolated facility conveyance reduces sensitivity of export's quantity and quality.	Levee System Integrity Program increases water supply reliability
Groundwater Resources	Increased groundwater use and potential adverse impacts.	Additional surface water and groundwater storage which would potentially reduce the significant adverse impacts to groundwater resources throughout all regions as compared to No Action.	Impacts similar to those described under Alternative 1.	Impacts similar to those described under Alternative 1.	Ecosystem Restoration, Water Quality, and Levee System Integrity programs would increase groundwater recharge. The Water Use Efficiency and water transfer program can result in greater reliance on groundwater resources during dry periods, and potential reductions in groundwater recharge, both potentially adversely impacting groundwater resources for 3 rd party users.
Geology and Soils	Conditions are expected to be similar in type but of greater magnitude than existing conditions due to continued soil erosion, sediment contamination, subsidence, and channel degradation.	Reduced channel erosion and sedimentation in the Delta Region through channel enlargements. Applied salt loads would be reduced in the Delta and San Joaquin River regions under all alternatives due to increased flows from additional storage facilities.	Reduced potential for erosion of channel, levee, and interior island soils through levee setbacks and shallow flooding of Delta island interiors. Applied salt loads would be reduced in the Delta and San Joaquin River regions under all alternatives due to increased flows from additional storage facilities and Water Use Efficiency.	Impacts similar to those described under Alternative 2.	Ecosystem Restoration is expected to have beneficial long-term effects in all geographic regions except the SWP and CVP Service Areas with respect to soil erosion, geomorphology, and sediment transport. The Water Use Efficiency program is expected to reduce erosion from agricultural lands. Coordinated Watershed Management efforts may have adverse short-term impacts on surface soil and channel erosion in

Table 3-1. Summary of Environmental Consequences of CALFED Program Actions (page 2 of 10)

Environmental Resource Category	ENVIRONMENTAL CONSEQUENCES OF CALFED BAY-DELTA PROGRAM ALTERNATIVES				
	No Action Alternative	Storage and Conveyance			Other Programs
		Alternative 1	Alternative 2	Alternative 3	
Geology and Soils (continued)					the Sacramento San Joaquin watersheds, but are expected to have beneficial long-term impacts on stream geomorphology by reducing sediment inputs from hillslope, bank, and channel erosion.
Noise	Conditions are forecast to be similar to existing conditions.	Construction of storage facilities in 1C is expected to result in overall greater potential noise effects but would not be significant in any region.	Impacts are expected to be similar to Alternative 1 for 2B, 2D, and 2E.	Impacts are expected to be similar to Alternative 1 for 3B, 3E, 3H, and 3I. In addition, construction of the isolated facility would generate noise.	Construction activities associated with the Ecosystem Restoration Program, and Levee System Integrity would not cause significant noise impacts in any region.
Transportation	Conditions are forecast to be similar to existing conditions, but traffic demands and traffic volume on existing roadways are expected to increase.	Significant but mitigable short- and long-term impacts to roads where construction of levee and storage and conveyance improvements may cause re-routing or temporary closure of some traffic routes for 1C.	Impacts similar to those described under Alternative 1, for 2B, 2D, and 2E.	Impacts similar to those described under Alternative 1, for all configurations except 3A.	Construction activities associated with Ecosystem Restoration and Levee System Integrity improvements may cause significant short-term impacts to roadways and traffic routes if detours or road closures occur.
Air Quality	Conditions are forecast to be similar to existing conditions.	Significant but mitigable short-term adverse air quality effects in the Sacramento and San Joaquin River Regions from construction of storage facilities for 1C.	Impacts are expected to be similar to Alternative 1, for 2B, 2D, and 2E. Other short-term impacts would occur as a result of construction of conveyance facilities.	Impacts from construction of storage facilities are expected to be similar to Alternative 2, for 3B, 3E, 3H, and 3I. All configurations would have impacts associated with construction of conveyance facilities.	Construction activities associated with Ecosystem Restoration and Levee System Integrity, improvements are not expected to cause significant air quality impacts in any region.

Table 3-1. Summary of Environmental Consequences of CALFED Program Actions (page 3 of 10)

Environmental Resource Category	ENVIRONMENTAL CONSEQUENCES OF CALFED BAY-DELTA PROGRAM ALTERNATIVES				
	No Action Alternative	Storage and Conveyance			Other Programs
		Alternative 1	Alternative 2	Alternative 3	
BIOLOGICAL ENVIRONMENT					
Fisheries and Aquatic Ecosystems	Conditions would be similar to existing conditions, although increased input of contaminants and increased Delta exports would adversely affect some aquatic organisms.	Adverse impacts, including increased entrainment loss, reduced productivity, and delayed migration of fish species could result from diversion to new off-stream storage (1C) and increased exports. Construction of new storage facilities would have potentially adverse impacts on spawning and rearing habitat.	Impacts would be similar to those for Alternative 1, for 2B, 2D, and 2E. Additional adverse impacts would include increased entrainment, reduced Delta productivity, reduced survival of aquatic outmigrants and habitat loss or degradation. Beneficial impacts would result from Delta flow conditions in the lower San Joaquin river that improve fish migration to the Bay.	Alternative 3 is expected to have greater impacts than Alternative 1 but would have the highest potential for beneficial impacts in the east, central, and south Delta Regions due to reduced entrainment losses, increased productivity and improved aquatic outmigration.	Ecosystem Restoration and Water Quality would improve aquatic habitat and species under all alternatives in all regions except SWP and CVP Service Areas outside the Central Valley. The Water Use Efficiency Program is expected to create ecosystem benefits through reduced diversion entrainment impacts, modifications in flow timing, improved in-stream water quality, and Water Transfers for ecosystem purposes.
Vegetation and Wildlife	Conditions are forecast to be similar to existing conditions.	Minimal adverse impacts on vegetation and wildlife communities, except 1C, which would cause disruption and reduction of habitats from construction and operation of storage facilities.	Greater adverse impacts on vegetation and wildlife for 2B, 2D, and 2E, than 1C, but would provide benefits to some species as a result of the creation of aquatic habitats.	Most adverse impacts on vegetation and wildlife resulting from extensive facility construction; however, the numerous aquatic habitats that are created would benefit numerous species dependent on such areas.	Ecosystem Restoration and Water Quality Program elements would lead to improved habitats under all alternatives. The Water Use Efficiency program may result in adverse impacts to some habitats from reduced surface water runoff. Changes in crop mix as a result of increased efficiencies and Water Transfers may reduce the amount of wildlife friendly crops.

Table 3-1. Summary of Environmental Consequences of CALFED Program Actions (page 4 of 10)

Environmental Resource Category	ENVIRONMENTAL CONSEQUENCES OF CALFED BAY-DELTA PROGRAM ALTERNATIVES				
	No Action Alternative	Storage and Conveyance			Other Programs
		Alternative 1	Alternative 2	Alternative 3	
Land Use, Economics, and Social Environment					
Agricultural Resources					
<i>Agricultural Land and Water Use</i>	Shifts in production from field crops and grains to fruits and vegetables are expected to occur.	Prime and unique farmland and other agricultural lands would be converted to other uses, and potential conflicts between proposed actions and regional land use plans and policies could occur. Storage facilities would potentially increase the amount of water available for agricultural production.	Impacts would be similar but more pronounced than those associated with Alternative 1.	Impacts would be similar but more pronounced than those associated with either Alternative 1 or 2.	Ecosystem Restoration would convert agricultural lands to other uses in the Delta, Sacramento River, and San Joaquin River regions. The Water Quality Program would result in improved water quality of irrigation water, higher crop yields, and greater crop selection flexibility. Retirement of lands in the San Joaquin River region could significantly affect up to 45,000 acres of agricultural land. Levee System Integrity program would convert Delta Region farmland, but provide greater protection to farmland from flooding and salinity intrusion.

Table 3-1. Summary of Environmental Consequences of CALFED Program Actions (page 5 of 10)

Environmental Resource Category	ENVIRONMENTAL CONSEQUENCES OF CALFED BAY-DELTA PROGRAM ALTERNATIVES				
	No Action Alternative	Storage and Conveyance			Other Programs
		Alternative 1	Alternative 2	Alternative 3	
<i>Agricultural Economics</i>	The cost of water is expected to continue to increase.	Conversion of farmland may result in adverse economic impacts.	Similar but more pronounced effects than Alternative 1.	Similar but more pronounced effects than Alternatives 1 or 2.	Ecosystem Restoration and Coordinated Watershed Management efforts could potentially convert agricultural lands from production, resulting in adverse economic impacts to revenue generation, employment, and local spending. The Water Quality Program would reduce long-term production costs and generate higher crop yields. A loss of jobs and economic income in the San Joaquin River region as lands are retired. Levee System Integrity could potentially convert some agricultural land from production but can provide increased protection to farmlands, thereby resulting in short-term adverse impacts for long-term benefits. Water Transfers may result in changes to local economies as a result of the sale of water. The type of impact would be dependant on how revenues from the sale are spent and how local economies are impacted because of the transfer of water into or away from a region. Coordinated Watershed Management would alter land use practices in upper watershed, which may result in forgone economic opportunities.

Table 3-1. Summary of Environmental Consequences of CALFED Program Actions (page 6 of 10)

ENVIRONMENTAL CONSEQUENCES OF CALFED BAY-DELTA PROGRAM ALTERNATIVES					
Environmental Resource Category	No Action Alternative	Storage and Conveyance			Other Programs
		Alternative 1	Alternative 2	Alternative 3	
<i>Agricultural Social Issues</i>	Conditions are forecast to be similar to existing conditions.	Job losses could occur as agricultural land is converted to other uses.	Jobs losses are expected to be more pronounced than for Alternative 1.	Jobs losses are expected to be more pronounced than for Alternatives 1 or 2.	Ecosystem Restoration could result in a significant loss of jobs due to the conversion of agricultural lands for habitat restoration. The Water Quality Program would result in a loss of jobs in the San Joaquin River region as lands are retired. The Water Use Efficiency Program would result in increased yield for farmers, but may reduce on-farm jobs associated with irrigation activities. Water Transfers may result in the loss of farm worker jobs and other job related impacts in the selling region. The loss of farm worker jobs in the receiving region, if the water is purchased for agricultural use, may be avoided by a transfer.
Urban Resources					
<i>Urban Land Use</i>	Continued development trends would cause displacement of some residents, disruption of some existing communities, local and regional land use plan inconsistencies.	Urban impacts could include displaced residents, disrupting of existing communities, and inconsistencies with local and regional land use plans.	Impacts would be similar to Alternative 1, but potentially more pronounced.	Impacts would be similar to Alternative 1, but potentially more pronounced than either Alternative 1 or 2.	Other programs are expected to have only negligible effects on urban land uses but could require relocation of major infrastructures.

Table 3-1. Summary of Environmental Consequences of CALFED Program Actions (page 7 of 10)

Environmental Resource Category	ENVIRONMENTAL CONSEQUENCES OF CALFED BAY-DELTA PROGRAM ALTERNATIVES				
	No Action Alternative	Storage and Conveyance			Other Programs
		Alternative 1	Alternative 2	Alternative 3	
<i>Urban Water Supply Economics</i>	Water supply reliability would continue to decline and supply costs would increase.	Water supply costs could increase.	Water supply costs could increase.	Water supply costs could increase.	Other programs are not expected to significantly affect urban economics.
<i>Utilities and Public Services</i>	Demand for utilities and public services is expected to increase significantly.	Alternative 1 is expected to increase the demand for utilities and public services and require the relocation of some utility infrastructure components.	Alternative 2 is expected to have similar but more pronounced effects than Alternative 1.	Alternative 3 is expected to have similar but more pronounced effects than Alternative 2.	Ecosystem Restoration may require the relocation of utility infrastructure components under all alternatives.
Recreational Resources	Continuing increased demand for recreational facilities.	New storage and conveyance facilities under 1C would create new recreational opportunities while displacing some existing opportunities.	New storage and conveyance facilities under 2B, 2D, and 2E would create new recreational opportunities while displacing some existing opportunities.	New storage and conveyance facilities under 3B, 3E, 3H, and 3I would create new recreational opportunities while displacing some existing opportunities.	Ecosystem Restoration could convert existing open space uses in the Delta, Sacramento River, and San Joaquin River regions. Levee System Integrity improvements may result in beneficial impacts by creating beach slopes associated with new levees and reduced exposure to flooding for existing recreational facilities. Some facilities could be closed or relocated depending on the location of the levee improvements.
Flood Control Resources	Property values in the Delta Region would continue to increase, but flood protection levels would slightly decline.	Small potential benefits or costs to flood control in the Sacramento and San Joaquin River regions.	Benefits to flood control in the Delta, Sacramento River, and San Joaquin River regions from channel improvements and additional upstream storage.	Conveyance facilities and channel improvements are expected to provide additional benefits in the Delta. Other impacts are expected to be similar to those described in Alternative 2.	The Levee System Integrity Program is expected to have substantial beneficial impacts on flood control. The Ecosystem Restoration and Water Quality programs will also have flood control benefits.

Table 3-1. Summary of Environmental Consequences of CALFED Program Actions (page 8 of 10)

Environmental Resource Category	ENVIRONMENTAL CONSEQUENCES OF CALFED BAY-DELTA PROGRAM ALTERNATIVES				
	No Action Alternative	Storage and Conveyance			Other Programs
		Alternative 1	Alternative 2	Alternative 3	
Power Production and Energy	No Action Alternative would impact power and energy resources, due to changes in water demand, conveyance and pumping strategies.	Configuration 1C is expected to increase average dry year energy generation and capacity as new hydropower facilities are added. It would increase project energy use as operations change, would decrease the amount of CVP energy available for sale, and would increase the SWP's net energy requirement. Western's composite energy rate would increase significantly under this alternative. DWR's net power costs could also increase.	Configurations 2B and 2E would cause the same types of impacts as 1C.	Configurations 3B, 3E, 3H, and 3I would cause the same types of impacts as 1C.	Other program elements may affect power production and energy but would not significantly impact CVP and SWP hydroelectric generating capacity, power production economics or energy generation.
Regional Economics	No Action conditions are forecast to be similar to existing conditions adjusted for population growth.	Adverse impacts are expected from loss of agricultural production and beneficial effects from increased recreation and water supply and reliability.	Impacts similar to those from Alternative 1, but provide more beneficial recreational impacts.	Impacts similar to those from Alternative 1, but provide more beneficial recreational impacts. In addition, this alternative would provide greater water supply reliability as a result of additional conveyance flexibility.	Other program elements would remove agricultural lands from production, resulting in adverse economic impacts.

Table 3-1. Summary of Environmental Consequences of CALFED Program Actions (page 9 of 10)

Alternative	Region	ERP			Levees			Storage			Conveyance			Water Quality ¹	Total
		P	S	U	P	S	U	P	S	U	P	S	U		
Alt 1	Delta	93,000-105,000	3,500-6,500	1,500-3,500	31,000	2,500-3,000	500-1,000	0	0	0	0-300	0-100	0	0	132,000-150,400
	Sacramento River	17,000-22,000	2,500-3,000	500-1,000	0	0	0	0	0	0	0	0	0	0	26,000-34,000
	San Joaquin River	8,200-9,500	800-1,000	300-500	0	0	0	0	0	0	0	0	0	35,000-45,000	44,300- ² 56,000
Alt 2	Delta	93,000-105,000	3,500-6,500	1,500-3,500	31,000	2,500-3,000	500-1,000	0	0	0	3,500-24,500	100-3,000	400-1,500	0	136,000-179,000
	Sacramento River	17,000-22,000	2,500-3,000	500-1,000	0	0	0	0	0	0	0	0	0	26,000-34,000	
	San Joaquin River	8,200-9,500	800-1,000	300-500	0	0	0	0	0	0	0	0	0	35,000-45,000	44,300- ² 56,000
Alt 3	Delta	93,000-105,000	3,500-6,500	1,500-3,500	31,000	2,500-3,000	500-1,000	0-14,000	0-2,000	0	3,500-27,000	200-5,000	300-1,500	0	136,000-199,500
	Sacramento River	17,000-22,000	2,500-3,000	500-1,000	0	0	0	0	0	0	0	0	0	26,000-34,000	
	San Joaquin River	8,200-9,500	800-1,000	300-500	0	0	0	0	0	0	0	0	0	35,000-45,000	44,300- ² 56,000

Types of Farmland

- Prime (P) - Land with the best combination of physical and chemical features for the production of agricultural crops
- Statewide Importance (S) - Land with a good combination of physical and chemical features for the production of agricultural crops
- Unique (U) - Land of lesser quality soils used for the production of the State's leading agricultural cash crops

¹Estimated acreages of important farmlands cannot be attained at this time because mapping has not been completed in the San Joaquin Region. It is possible that Important Farmlands will be affected by the Water Quality Program in the Grasslands subarea of the San Joaquin River Region.

²Total includes lands potentially affected by Water Quality Program.

Table 5-2. Estimated Acreages of Important Farmland Impacted by Program Actions

— THE DELTA FIX —

A SNAP SHOT OF THE

CALFED BAY-DELTA PROGRAM AND STATUS

SPECIAL INSERT TO ACWA NEWS: MAY 1998

How The Decision Will Be Made

Now that CALFED's draft environmental review for the Bay-Delta solution has been released for public review, many people are asking what the process and timing are for reaching a final decision. The schedule is as follows:

- Public hearings will wrap-up at the end of May. Following the hearings, CALFED agencies will review the public and written comments and develop responses, which will undoubtedly include revisions to the proposed programs. In early summer, CALFED will hold a workshop to discuss the received comments and how it is addressing them.

- Throughout the entire process, CALFED will work with the various stakeholder interest groups to resolve outstanding issues and clarify the overall program. Planning on how to implement the overall program will also be ongoing.

- By this summer, a decision will be made by the CALFED agencies on a preferred alternative, that is, which of the three comprehensive programs, as modified by public review, will be the selected course of action.

- A final environmental report will be issued for public review December 1 and completed within 60 days. At that point, program elements will begin to be implemented. Special programs that may require additional permits will be analyzed through additional environmental reviews.

- It is expected to take 25 to 30 years to implement a CALFED solution, at a cost of upwards of \$10.5 billion.

Water For All Californians

The stakes could not have been greater when the unique partnership of state and federal resource agencies known as CALFED began developing a solution to the problems of the Bay-Delta estuary nearly three years ago.

By the early 1990s, two Delta fish species were protected under the federal Endangered Species Act, and others were under consideration for listing. The water that lubricated much of California's trillion-dollar economy and supplied drinking water to 22 million people was becoming ever more unreliable.

And then there was the politics: north, south, city, farm, environmental — the political and regional constituencies that had fought over California's most precious resource were only beginning to learn how to work together for common solutions.

"It begins to strike you as reckless that so many people and such a humongous economy are so dependent on such a fragile water delivery system."

—Marc Reisner, author, Cadillac Desert

A Public Process

To navigate this maze of technical and political obstacles, CALFED's Bay-Delta Program devised the most open, public water policy process in California history. They started with the premise that no option was preferred nor precluded. Everything was on the table.

This process was working against hard deadlines and real problems. It was, as the program's Executive Director Lester Snow kept reminding the participants, "the last, best chance for saving the Delta."

(continued on page 4)

CALFED Decision Time Frame				
Public Comment	████████████████████			
Preferred Alternative Selected		████████████████████		
Final Environmental Report Issued				████████████████████
	March '98	June	August	December

This update prepared by the California Water Clearinghouse has been reprinted as a special ACWA News insert. For further information access the California Water Clearinghouse web site at www.bay-delta.org.

Three Proposals Offer Different Strategies To Meet Goals

The three proposed Bay-Delta solutions packages released by the CALFED Bay-Delta Program in mid-March all share the same goals: *restore the Bay-Delta ecosystem to self-sustaining health and improve the quality and reliability of water supplies.* But they represent distinct approaches in meeting those goals.

The major stakeholder groups — agricultural, environmental and urban water interests — are now engaged in thorough analyses of the alternatives. Each alternative is endlessly complex, embracing hundreds of coordinated actions. A major challenge for those reviewing the documents is to understand how each component interacts in the overall program.

The public debate in recent months has become spirited. Emerging key issues in the debate include:

Water Use Efficiency and Conservation: The draft CALFED Program proposal includes the most aggressive water conservation and recycling program ever envisioned in the nation's history. For every gallon of new water yield developed by their program, up to four gallons would be created through conservation, according to CALFED. Access to new water

supplies by any agency would be conditioned on demonstrating efficient use of existing water supplies.

Nonetheless, the Environmental Water Caucus (EWC), a coalition of environmental interest groups, has called for reducing Bay-Delta water diversions by as much as 3 million acre-feet, an amount equivalent to nearly a year's supply from the State Water Project. Such a reduction in demand would dramatically reduce the impacts on fish and other environmental resources, they argue.

Water users, however, note that improving the reliability of supply is one of the co-equal objectives of the CALFED Program, and that the state could not absorb the economic impacts of such a drastic reduction in the water supply. Significant investments in conservation have occurred over the past two decades — more than \$160 million in Southern California alone — and more will be made under the CALFED program. But with an expected population increase of 18 million people over the next 20 years, the state needs to develop, not reduce, reliable water supplies.

In addition, based on initial review of the program, some water

users feel CALFED's conservation targets may be unrealistically high.

Assurances and Linkages:

The CALFED proposals are complex and inter-related. However, many groups feel that the various program elements need to be linked so that all interests receive roughly equal benefits at about the same time. Key to keeping the various parties engaged will be devising a program schedule that accomplishes this goal. *(continued on page 3)*

Who Benefits From a Delta Fix?

Northern California:

- enhances local watershed management efforts
- restores ecosystem
- improves balance between Delta water supply and demand

Central California:

- protects natural resources
- fixes levees
- protects farms and towns

Bay Area:

- restores Bay-Delta ecosystem
- increases water supply reliability

San Joaquin Valley:

- better water quality
- improves water supply reliability

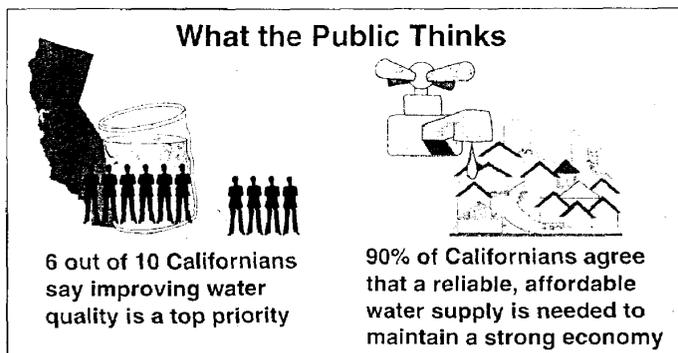
Southern California:

- protects water quality
- improves water supply reliability
- increases water supply

Source: CALFED Bay-Delta Program

Broad Public Support For CALFED Goals

Recent opinion sampling has shown strong and consistent public support for the goals of the CALFED Bay-Delta Program.



Proposals *Continued from page 2*

Just as important, mechanisms need to be developed that will provide the various interests with the certainty that the program is not just promises, but real projects that will restore the environment, improve water quality, and bolster water supplies. For any new facilities, binding guarantees will need to be developed that will spell out how such projects will be operated to protect different interests from adverse impacts.

Facilities: CALFED's third alternative, the dual-conveyance option, calls for construction of a new channel to the east of the Delta. Some groups have called this

“When the Delta is in trouble, California’s economy is in trouble. The Delta is broken, and it must be fixed.”
—Sunne McPeak, CEO, Bay Area Council; Vice-Chair, Bay-Delta Advisory Council

proposal a revival of 1982’s Peripheral Canal, but a closer examination shows dramatic differences between the two facilities.

The primary purpose of the new channel in CALFED’s dual-

conveyance system would be to provide better quality water, not increased supplies. In fact, the facility is proposed to be likely about half the size of the old Peripheral Canal. Better quality water would be possible by changing the point where water is diverted to improve the source water into the system.

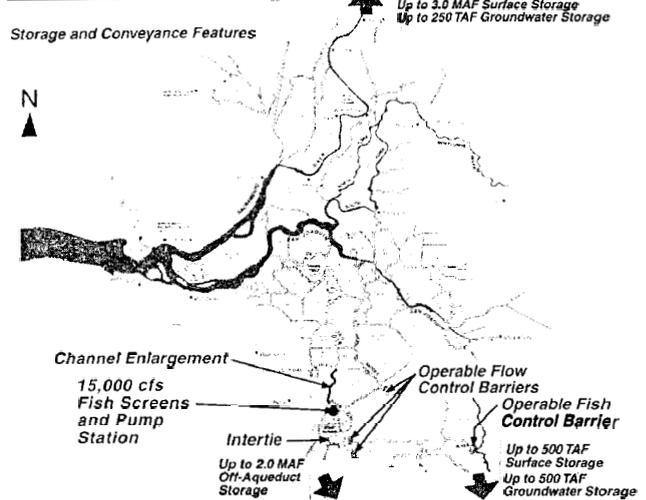
The dual-conveyance system would keep water exporters tied to the Delta for some of their supply, thus ensuring their continuing concern for the overall health of the estuary. An additional water diversion point also would provide important fisheries benefits, shielding them from the impacts of pumping operations in the southern Delta.

Importantly, the facility is just one component of a vast program to restore the ecosystem, improve water supply reliability, strengthen Delta levees, and improve water quality.

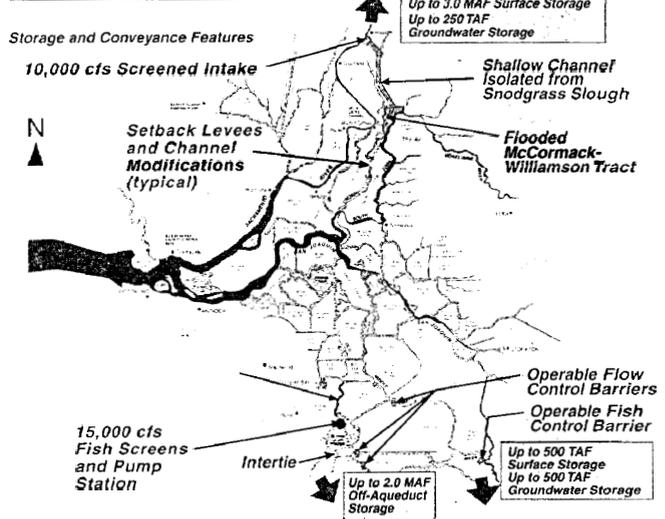
Water Quality: Alternatives two and three — calling for channel enlargements in the Delta and a new isolated channel to the east of the Delta — show major benefits for drinking water quality. However, alternative two shows improvements in quality more for in-Delta users, while the dual-conveyance option shows improvement primarily for export water users. The fact is all interests need better quality drinking water supplies. The challenge will be to refine the water quality program so that happens.

(continued on page 4)

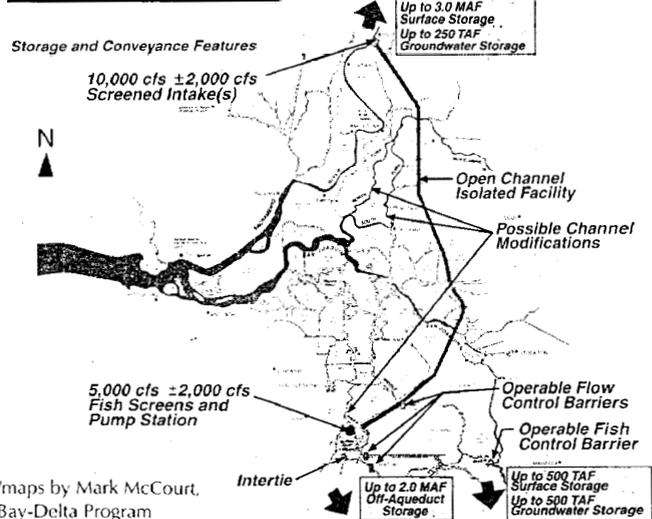
ALTERNATIVE 1



ALTERNATIVE 2



ALTERNATIVE 3



Graphics/maps by Mark McCourt, CALFED Bay-Delta Program

Water For California

Continued from page 1

Fear of failure was one motivating force keeping all parties — urban and agricultural water users, environmental interests, and business and political leaders — at the table because to do otherwise was practically unthinkable. The nation's largest state economy depends on a reliable, high-quality Bay-Delta water supply. The vast environmental resources of the West Coast's largest estuary require a healthy Bay-Delta to survive and flourish.

And progress was made. In November 1996, California voters resoundingly passed Proposition 204, a bond measure that devoted about \$600 million to environmental restoration work for the Bay-Delta. The President and Congress did their part, pledging another \$430 million for the Bay-Delta environment.

Also, first-ever agreements were reached among water users to help meet their water supply needs, protect Bay-Delta water quality and contribute to the recovery of declining salmon stocks and other fish.

People were beginning to understand that for the first time ever, a comprehensive solution was in reach.

Solution Proposals Released

CALFED has released an environmental report on three comprehensive proposals for "fixing" the Delta.

"I don't think any technical analysis is going to yield the answer. The answer is on the trust side of things."

**—Lester Snow,
Executive Director,
CALFED Bay-Delta
Program**

The proposals aim for the same broad goals: a restored Bay-Delta ecosystem; improved water quality; increased and more reliable water supplies; and a strengthened Delta levee system to guard all of those resources. Each of the three alternatives builds on a foundation of equal effort in some key areas: water quality, water-use efficiency, environmental restoration, levee improvements, watershed management, and water transfers.

Differentiating the three alternatives is how each proposes to store and move water across the Delta. Each proposal includes additional water storage ranging up to 6 million acre-feet (one acre-foot = 326,000 gallons).

The Alternatives

The first alternative would simply reoperate the current Delta water supply system, essentially by changing the timing of diversions at the state and federal water projects to minimize environmental impacts. The second alternative proposes widening some channels in the eastern Delta to further reduce the environmental impacts of diverting water at the export projects while allowing improved flows for water users.

The third alternative builds on the second, proposing an additional canal be built just east of the Delta to divert water from the Sacramento River to provide better quality and eliminate adverse pumping impacts.

Each of the alternatives has its strengths and weaknesses, both technically and politically.

The final plan will likely blend together the best elements of the current proposals. Nonetheless, the options each represent a different path for addressing California's most persistent water policy issue.

"This is the most critical infrastructure issue to be dealt with in California for the next 20 years. Nothing else comes close."

**—Bill Jones,
Secretary of State**

Proposals

Continued from page 3

Costs: A CALFED solution will be expensive — ranging from \$9 billion for alternative one to \$10.5 billion for alternative three, according to estimates. The costs when compared to a trillion-dollar-a-year economy in need of investing in its water infrastructure are not overly burdensome. But there are concerns about identifying exactly who benefits from each program component, and fairly apportioning those costs among the beneficiaries.

Other issues are certain to emerge in the unprecedented CALFED water policy debate. Clearly, Californians are facing a once-in-a-lifetime decision on how to meet the state's water needs well into the future. Close attention and open minds are required.

How can I learn more?

- CALFED has a number of documents available. Call toll-free at 1-800-900-3587.
- Web sites: <http://CALFED.ca.gov> or <http://www.acwanet.com>, or the California Water Clearinghouse at <http://www.bay-delta.org>.

ACWA

A Biweekly Newsletter
for ACWA Members

news

ASSOCIATION OF CALIFORNIA WATER AGENCIES • SINCE 1910

“IT'S BEEN SAID”

“The CALFED agreement, which comprises a unique multi-agency partnership that addresses ecological and water supply problems simultaneously, is of significant value to our state.

“I, along with many members of the California congressional delegation, have worked diligently to secure federal funding for this project. Bay-Delta was funded at \$85 million in Fiscal Year 1998, and I fully support the Fiscal Year 1999 budget request of \$143 million.

“While I am still evaluating my position on the various alternatives presented in the CALFED Bay-Delta Programmatic EIS/EIR, any final solution that is adopted must be equipped to handle the necessary improvements in the operation of the CVP [Central Valley Project] and the State Water Project for the long-term environmental, water quality, water use efficiency and flood protection needs for the future of the state of California. Furthermore, any final solution should include the utilization of an open-channel isolated facility.

“California's water needs are best met by maximizing an 'adaptive management' strategy for ecosystem restoration and water quality and efficiency improvements.

“In summary, the solution to California's water needs must include providing a reliable water supply and a healthy environment at the same time.”

— Excerpts from comments by U.S. Representative George Radanovich April 22, 1998, on CALFED alternatives for fixing problems in the Bay-Delta

Views and Perspectives

Quotes Heard at CALFED News Conferences

It's not always the photo that's worth a thousand words; in this case, it's the words themselves that are telling the story. Here's a smattering of quotes from the news conferences March 16 where the CALFED options for fixing the problems in the Bay-Delta were announced.

■ "Since the signing of the Bay-Delta Accord in December 1994, an unprecedented coalition of state and federal agencies, together with concerned stakeholders, has worked tirelessly to develop a long-term 'fix' that suits California's economic and environmental needs. Now that we have the answers before us, I suggest the time has come to speed up our efforts. For we still have plenty of work ahead if we are to meet a deadline by year's end." — Governor Wilson in a prepared statement

■ "In phase two, we have undertaken the largest ecosystem restoration program anywhere in the world. Over a



"If there's not enough water to go around, I will gladly share it with someone because I still have some in my cup," said Sunne McPeak, vice chair of the Bay-Delta Advisory Council. In her comments at the CALFED news conference, she urged stakeholders to "stay at the table."

billion dollars is available for projects to restore the environment and habitat for fish and other species." — Deputy Interior Secretary John Garamendi at the CALFED news conference. He told the reporters and photographers in attendance that they should turn their cameras around and pan the audience — comprised of the stakeholders and the public — as they played a vital role in the CALFED process.

■ "Anything short of success is unacceptable to the public." — Secretary of State Bill Jones at Governor Wilson's news conference

■ "The effort to date has not been easy. Today marks another milestone in California's water history." — Senator Jim Costa, Chair of the Senate Agriculture and Water Resources Committee, at Governor Wilson's news conference

■ "We call today a 'commencement ceremony.' The hard work is just now beginning." — Lester Snow, Executive

Director, CALFED Bay-Delta Program, at the CALFED news conference

■ "Today's event is a really big deal ... We need folks to approach this document with open minds and open hearts. There's something for everyone to love, something for everyone to hate, something for everyone to fear." — Felicia Marcus, Regional Administrator, U.S. Environmental Protection Agency, at the CALFED news conference

■ "A document won't solve our problems, discussion will. This isn't a pop quiz. This is a take-home exam. We all have to rise to this occasion or miss the opportunity [to fix the Bay-Delta]. There is too much at stake not to do so." — Felicia Marcus, Regional Administrator, U.S. Environmental Protection Agency, at the CALFED news conference

■ "We must put behind us the water wars of the past and move into the next century." — Sunne McPeak, Vice Chair,



California Resources Secretary Doug Wheeler addresses a standing-room-only crowd at the CALFED news conference. Seated (l-r) are Felicia Marcus, regional administrator, U.S. Environmental Protection Agency; Deputy Interior Secretary John Garamendi; Sunne McPeak, vice chair, Bay-Delta Advisory Council; and CALFED Executive Director Lester Snow.

Bay-Delta Advisory Council, at the CALFED news conference

■ “The common programs are the cornerstone of a water management plan in California.” — *Sunne McPeak, Vice Chair, Bay-Delta Advisory Council, at the CALFED news conference*

■ “CALFED is a model for the kind of state-federal partnership we need to embrace if we are to develop lasting solutions to complex environmental issues. The Bay-Delta is on par with the Florida Everglades and Chesapeake Bay in terms of important ecological



Stakeholders are interviewed after the CALFED news conference.

resources. We must meet the challenges it faces for the good of California and the nation.” — *Interior Secretary Bruce Babbitt in a prepared statement*

■ “We enter [this phase] with no predisposition to any of the three alternatives. The only option not available to us is failure ... Unless we seize this opportunity, future generations will have us to blame.” — *California Resources Secretary Doug Wheeler at the CALFED news conference*

■ “The historic Bay-Delta Accord broke the gridlock on water policy in California, and began the hard work of finding a consensus-based, long-lasting Bay-Delta solution. Such a solution must guarantee a healthy environment and meet the needs of California’s farmers, fishers and families.” — *Carol M. Browner, Administrator, U.S. Environmental Protection Agency, in a prepared statement*

■ “CALFED’s collaborative approach is the best hope for a sustainable

solution that addresses water quality objectives in the Bay-Delta and supports the state’s long-term water needs.” — *Peter M. Rooney, Secretary, California Environmental Protection Agency, in a prepared statement*

■ “California’s trillion-dollar economy depends on a healthy environment and a safe, reliable and adequate water supply. The CALFED process is an unprecedented effort to address these two vital needs.” — *Commerce Secretary William Daley in a prepared statement*

■ “The business community strongly supports the CALFED process. We have [through this process] people who want to find solutions to the problem.” — *Allan Zaremberg, president, California Chamber of Commerce, at Governor Wilson’s news conference*

■ “We cannot fail. We have to find a way to make it work.” — *Bill Pauli, president, California Farm Bureau Federation, at Governor Wilson’s news conference*



A crowded CALFED Bay-Delta Program news conference March 16 at the Sacramento Convention Center — where the CALFED options to fix the Bay-Delta were announced.

Environment Watch

Larry Sokoloff

Enviros Don't Like CALFED Alternatives

Environmentalists say that a smaller, modified version of the Peripheral Canal will be embraced by government officials as part of the answer to restoring the Sacramento River-San Joaquin River Delta. But a spokesman for the Wilson Administration denied that the canal-oriented alternative is preferred over other alternatives.

A draft environmental impact report released in March suggested the canal as one of three options for the restoration work. Public hearings on the EIR begin around the state on April 21, and a public comment period lasts until June 1.

Plans for the Delta are expected to cost between \$4 billion and \$10.5 billion to implement. The most controversial alternative calls for creating a canal to transfer water around the Delta itself to the southern Delta area near Tracy, a project somewhat similar to the ill-fated Peripheral Canal proposal that failed to win voter approval in 1982.

The Delta is where the state's two largest rivers, the Sacramento and the San Joaquin, meet San Francisco Bay. It is home to about 300 species of birds, animals and fish, many of which are at risk of becoming endangered. Fish often are sucked into the pumps used to move water from the Sacramento River to the south Delta, where the water is used to irrigate the state's farms and serve urban users.

The Delta also provides two-thirds of the state's population with drinking water and irrigates crops in the Central Valley.

The problems in the Delta date back over 100 years, when the land was diked and levees were built for agricultural uses. In 1994, the state and federal governments announced an accord that began the CALFED program to restore it and save endangered species.

If carried out, the Delta restoration would be the largest ecosystem restoration project in the United States. Funding is expected to come from state, federal and user fees, although so far, most of the money hasn't been earmarked. California voters did okay \$450 million for the restoration work by passing Proposition 204 in 1996. The federal government is also committed to providing \$430 million over the next three years.

The alternatives in the EIR were created through meetings and studies by representatives of state and federal agencies, with input from environmentalists, business and agricultural groups, and urban water users. Those alternatives are:

- Alternative 1, which makes the fewest changes to the status quo. It would lead to the construction of new reservoirs and expand others to store up to 6 million new acre-feet of water.

- Alternative 2, which would incorporate the first alternative, but would also dredge Delta channels deeper to hold more water and widen channels to help fish.

- Alternative 3, which would incorporate the elements of the first two, but would also include a 44-mile canal between the Delta's eastern edge to the state water product aqueducts near Tracy. The canal is known as an "open channel isolated facility."

Environmentalists have compared Alternative 3 to the Peripheral Canal, which was defeated by the state's voters in 1982. But CALFED officials have taken pains to distinguish the two projects, noting that the latest proposal would carry less water than the canal. The CALFED channel would carry 15,000 cubic feet per second, versus the Peripheral Canal's 23,000 cubic feet per second.

Environmental groups have been critical of the draft EIR, asserting that in the end the canal will be chosen as the best alternative. They

also claimed that the report does not do enough to promote water conservation.

"Number three is going to be the clear preferred alternative," said Wil Burns, communications director for Save San Francisco Bay, who said that implication was clear from the "tenor" of the document.

Burns said the EIR understated the ecological problems that will be created by building the canal. He said that diversion of water for the canal will decrease water flows in the Delta.

But a Wilson administration spokesman denied that Alternative 3 had been chosen.

"There is no preferred alternative. It's been made very clear by all the players involved," said Jim Youngson, assistant secretary for resources. Youngson noted that the speakers making these statements were both Democrats and Republicans, including Sen. Jim Costa, D-Fresno, Deputy Interior Secretary John Garamendi, also a Democrat, and Republican Governor Pete Wilson.

Environmentalists also criticized the EIR for failing to emphasize conservation more.

"There's a whole range of conservation based alternatives CALFED has not yet explored," said Ronnie Cohen, a policy analyst with the Natural Resources Defense Council. Cohen said that while the EIR does mention water conservation, much more should be considered.

For example, the EIR calls for saving less than 1% of agricultural water used in the state, she said. But a recent NRDC report shows farmers who have reduced their water usage by 20-30%, she said.

The Delta program will have an impact on prime agricultural land in the Delta, especially if the canal is built. "Use of land already owned by the government and other possibilities will be considered prior to converting prime agricultural land, and additional measures to mitigate these impacts will be included," according to CALFED documents.

The final EIR on the Delta is supposed to be released in late 1998. The restoration project itself is expected to last for up to 30 years.

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Flood Law Delayed

Implementation of AB6x, which was scheduled to go into effect on March 1, has been delayed until June 1. The delay was sought by the California Association of Realtors (See *CP&DR*, March 1998).

AB6x, introduced by Assemblyman Tom Torlakson, D-Martinez, would have required home sellers and real estate agents to disclose to home buyers if a home is in a designated flood plain.

Currently, homeowners must disclose whether a house is in an area where there is a threat of wildland fires and earthquakes.

AB6x grew out of the severe floods that occurred in the Central Valley in 1997. It requires the disclosure of whether a home is in a designated flood plain or could be flooded if a dam collapses. It also requires greater disclosure of fire dangers.

The Realtors organization requested the delay because specific information on flood risk and other hazards were not available in all areas of the state.

The bill granting the delay, SB 71 by Senator David G. Kelley, was signed by Governor Wilson on Feb. 28. □

Summary Evaluation of Most Significant Technical Distinguishing Characteristics

	In-Delta Water Quality	Export Water Quality (South Delta)	Export Water Quality (Contra Costa)	Minimize Diversion Effects on Fisheries	Delta Flow Circulation	Water Supply Opportunities	Operational Flexibility	Minimize Risk to Export Water Supplies
Alternative 1	M	L	L	L	L	L	L	L
Alternative 2	M+	M	M+	L	M	L	M	M
Alternative 3	L	H	L	M+	M+	M	H	H

Points to consider for inclusion in CALFED comments:

1. The program appears to do little if anything to help solve the groundwater overdraft and supply shortage for San Joaquin County. The EIR/EIS on the preferred alternative should address this issue.
2. Restoration and protection of the Delta should have higher priority than increasing water exports.
3. Delta improvements, including levee work, should be built prior to any isolated channel construction.
4. Storage improvements should be built prior to any isolated channel construction.
5. Financial assistance should be offered to those agencies required to meet higher discharge standards due to this program.
6. The Water Quality Program appears to encourage higher levels of treatment for wastewater effluent, thereby maintaining flow and improving water quality; while the State's Region 5 Basin Plan encourages land disposal of effluent, thereby decreasing flows. The two plans should be reconciled clearly.
7. Removal of Delta farmland from production to provide water for farmland in the southern part of the State is inappropriate.
8. Of the alternatives presented, recommend Alternative 2 be designated as the preferred alternative for the final EIR/EIS.
9. Request that a presentation by CALFED on the program with question/answer period be made at a regular Council meeting.