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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

*Debra C. Man*  
for  
EXECUTIVE SECRETARY

March 26, 1996

**To:** Board of Directors (Water Planning and Resources Committee--Action)

**From:** General Manager *William Horn*

**Submitted by:** Debra C. Man, Chief Planning and Resources *Debra C. Man*

**Subject:** Adoption of Proposed Evaluation Criteria for CALFED's Bay-Delta Alternative Scoping Process

## RECOMMENDATION

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It is recommended that your Board approve the proposed evaluation criteria to be used in providing Metropolitan's comments on CALFED's Bay-Delta alternatives scoping process.

## EXECUTIVE SUMMARY

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On February 15, the CALFED Bay-Delta Program released a description of 20 draft alternatives consisting of actions to provide long-term improvements to the management of Bay-Delta water supply, water quality, environment, and infrastructure. These draft alternatives have been reviewed by the Bay-Delta Advisory Council and various stakeholder interests, and have been available for public review and comment. Using comments provided from each of these various interests, CALFED has narrowed the list of draft alternatives to ten more comprehensive alternatives. Eventually these ten alternatives will be narrowed down through a statewide scoping process coordinated by CALFED to a short list of three to five alternatives for inclusion in a Programmatic Environmental Impact Statement/ Environmental Impact Report.

Staff presented to your Board in March (see Board Letter 9-8, dated February 27, 1996) initial draft evaluation criteria to be used by Metropolitan to provide comments on CALFED's alternatives during the Bay-Delta alternatives scoping process. The draft evaluation criteria have also been presented to Metropolitan's member agency managers and the Integrated Resources Planning Workgroup for review and comment. These revised criteria are presented for your Board's review and approval.

## **DETAILED REPORT**

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### **Review of Alternatives**

On February 15, the CALFED Bay-Delta Program released a description of 20 draft alternatives consisting of actions to provide long-term improvements to the management of Bay-Delta water supply, water quality, environment, and infrastructure. These draft alternatives have been reviewed by the Bay-Delta Advisory Council (BDAC) and various stakeholder interests, and have been available for public review and comment. Using comments from BDAC, various stakeholder interests, and the public, CALFED has narrowed the list of draft alternatives to ten more comprehensive alternatives. Eventually CALFED, through its scoping process, will narrow down these ten alternatives to a "short list" of three to five alternatives for inclusion in a Programmatic Environmental Impact Statement/ Environmental Impact Report (PEIS/EIR).

The current list of ten alternatives are categorized by CALFED into three groups of emphasis, similar to the previous 20 alternatives. A summarized description of each of the alternatives is contained in Attachment A. Various "Core Actions" that CALFED has already identified will also be included in each of the alternatives. These consist of actions at specific implementation levels in the areas of ecosystem restoration, demand management, diversion screening and consolidation, water transfers and conjunctive use, and levee improvements.

### **Process for Refining Alternatives**

The ten alternatives in the current revised list are more comprehensive and viable than the initial list of twenty, yet none can yet be considered as final products. Cost estimates of each of the alternatives have not been made available by CALFED to date, but are anticipated in mid-April. Further refinement will take place with the following schedule:

- **April 9-18:** Statewide scoping meetings will take place to receive public comments to assist in further narrowing the alternatives to a "short list" of three to five alternatives to be included in the PEIS/EIR. Southern California public scoping meetings will be held in San Diego on April 16, Long Beach and Pasadena on April 17, and Bakersfield on April 18.
- **May:** CALFED expects to release the "short list" of alternatives for inclusion in a draft PEIS/EIR, completing Phase One of the CALFED Bay-Delta Program (this deadline may be extended by four to six weeks).
- **June 1997:** CALFED will issue a draft PEIS/EIR.

### **Metropolitan's Evaluation Criteria**

Metropolitan's Integrated Resources Plan (IRP) has defined a Preferred Resource Mix to meet its service area needs over the next 25 years. According to this preferred mix, objectives of water supply enhancement, water quality enhancement, environmental protection, infrastructure reliability, and costs of deliveries can be attained within the context of a long-term plan for the Bay-Delta Estuary. Metropolitan's evaluation of CALFED's alternatives therefore will be completed in a manner that applies evaluation criteria consistent with IRP targets and objectives.

Staff presented initial draft evaluation criteria to your Board to be used by Metropolitan to provide comments on CALFED's alternatives during the Bay-Delta alternatives scoping process. The draft evaluation criteria have also been presented to Metropolitan's member agency managers and the IRP Workgroup for review and comment. The following refined evaluation criteria are the result of the process above and are presented for your Board's approval:

- **Environmental Protection:**
  - A. *Regulatory Certainty* -- Favorable alternatives would provide regulatory certainty and predictability of water supplies from the Bay-Delta (a "deal is a deal"), minimizing and eventually eliminating the need to control water project operations in the Delta on a day-to-day basis (e.g., "Endangered Species Act actions").
  - B. *Permitting* -- Favorable alternatives would have a greater ability to obtain permits for any capital improvement projects, and should provide a streamlined permitting process to facilitate early-start environmental restoration actions.
  - C. *Ecosystem (Habitat-Based) Approach* -- All alternatives should allow for management of the Bay-Delta on a habitat basis rather than species by species. Favorable alternatives would facilitate multi-species habitat conservation planning programs which improve the alternative's ability to meet other water supply, quality, and reliability goals.
  
- **Water Supply Enhancement:**
  - A. *1.8 MAF in Normal Years* -- In a normal hydrologic year, favorable alternatives would provide for an average of 1.8 MAF of State Water Project (SWP) supplies to meet requirements for direct consumption and storage replenishment.

- B. *1 MAF in Dry Years* -- During a dry hydrologic year as defined by the Department of Water Resources (average of 1928-1934 hydrologic period), favorable alternatives would provide for 1.0 MAF of SWP supplies.
- **Water Quality Enhancements:**
    - A. *Drinking Water Quality* -- Favorable alternatives would allow water users to meet existing and anticipated future drinking water quality standards. Such alternatives would address control of total organic carbon and bromide levels to reduce potential formation of disinfection by-products.
    - B. *TDS and Blending* -- Favorable alternatives would provide specific levels of total dissolved solids (TDS) required for blending SWP deliveries with Colorado River supplies and to meet requirements for water management actions including groundwater conjunctive use and reclamation.
  - **Infrastructure Reliability:**
    - A. *Six-Month Stoppage* -- Favorable alternatives would provide that full deliveries to water providers resume within six months following a major catastrophic event (such as an earthquake or flood) adversely affecting SWP infrastructure, including the Delta.
    - B. *Emergency Service* -- Greater costs should be placed on water providers requiring disproportionate emergency service from state or federal facilities in the case of infrastructure damage resulting from a catastrophic event.
  - **Costs:**
    - A. *Equity* -- There should be an equitable allocation of costs to reflect multiple beneficiaries when applicable. For example, some components of alternatives have broad public benefits, and the costs of such components should be broadly distributed.
    - B. *Incremental SWP costs* -- Favorable alternatives would allow Metropolitan to keep its incremental SWP costs under \$300/acre-foot.
    - C. *Avoided Costs* - Favorable alternatives would have costs for resource development with Delta improvements less than the avoided costs of water supply development under the IRP's alternative local resource mix.

Staff will continue to analyze the CALFED alternatives as they are modified and will provide your Board at its April meeting with an up-to-date analysis of which attributes within CALFED's list will best support Metropolitan's interests in water supply, water quality,

environmental protection, infrastructure reliability, and cost. Following approval of the evaluation criteria by your Board, Metropolitan will provide comments to CALFED on its alternatives in its initial "Scoping Workshop" based on adopted evaluation criteria.

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Attachments

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## ATTACHMENT A

**CAL-FED ALTERNATIVES**

The current list of ten alternatives are categorized by CALFED into three groups of emphasis, similar to the previous 20 alternatives.

- **System Reoperation**
  - A. Extensive Demand Management
    - Aggressive demand management to produce .5 to 1 million acre - feet (MAF)
    - Fallow 800,000 acres to produce .5 to 1 MAF
    - 100 thousand acre-feet (TAF) environmental storage in-Delta
  - D. Through-Delta Conveyance
    - Screened diversion on Sacramento River, channel improvements
    - Supply 300-500 TAF from groundwater banking
    - 1 to 1.5 MAF downstream storage
  - F. Extensive Habitat Restoration with Storage
    - High levels of habitat improvement, 100 TAF San Joaquin developed or purchased water
    - 300-400 TAF in-Delta environmental storage
    - Extensive screening of diversions
- **Combination of Reoperation and New Facilities**
  - B. New Storage to Improve Delta Flow
    - 1 to 2 MAF combined upstream and downstream storage
    - Increase groundwater conjunctive use (500-800 TAF)
    - Control water pollution sources, address south Delta water quality
  - C. Dual Delta Conveyance
    - Screened diversions on Sacramento River and small Delta isolated conveyance facility
    - Improve through-Delta conveyance, permit pumping at capacity
    - 1-2 MAF combined upstream and downstream storage
  - E. Delta Channel Habitat and Conveyance

- Moderate level of habitat improvements (100 TAF San Joaquin developed or purchased water)
- New diversion from Sacramento River to interior Delta channels
- Extensive channel improvement to reduce velocities

G. East Side Foothills Conveyance

- 5,000 to 7,000 cfs conveyance facility along western foothills of Sierras
- New screened diversions on Feather and Sacramento Rivers
- Address south Delta water quality, 100 TAF in-Delta storage

• **New Facilities**

H. Chain of Lakes Conveyance

- Multiple 5,000 cfs diversion points
- 300 to 600 TAF in-Delta storage with isolated conveyance through Delta island storage and siphons
- Extensive levee improvements

I. West Side Conveyance and River Restoration

- 10,000 to 15,000 cfs isolated conveyance facility along west side of Sacramento Valley
- 5,000 to 10,000 cfs screened diversion at Shasta Lake
- 2,000 to 7,000 cfs screened diversion at Lake Oroville
- 6 to 8 MAF storage in Sacramento Valley

J. East Side Conveyance

- 15,000 to 20,000 cfs isolated Delta conveyance facility
- 15,000 to 20,000 cfs screened diversion(s)
- Address south Delta water quality, stage, and circulation

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

9-8

February 27, 1996

To: Board of Directors (Bay-Delta Political Advisory Committee--Information)  
 (Water Planning and Resources Committee--Information)

From: *[Signature]*  
 General Manager

Submitted by: Debra C. Man, Chief  
 Planning and Resources  
*[Signature]*  
*[Signature]*

Subject: CALFED Bay-Delta Alternatives and Process for Developing Evaluation Criteria

### RECOMMENDATION(S)

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For information only.

### EXECUTIVE SUMMARY

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On February 15, the CALFED Bay-Delta Program released a list of twenty draft alternatives for a comprehensive Bay-Delta management plan. The Bay-Delta Advisory Council (BDAC) reviewed these alternatives the same day. CALFED will narrow this list of alternatives to between eight and twelve by late March. In May, CALFED plans to reduce the list to between three and five alternatives for inclusion in the Programmatic Environmental Impact Statement/Environmental Impact Report (PEIS/EIR). The PEIS/EIR will yield a preferred long-term plan for the Bay-Delta Estuary.

Currently CALFED has grouped the alternatives into three categories, which emphasize: (1) system reoperation and reliance on existing facilities; (2) a combination of reoperation and new facilities; and (3) new facilities. "Core Actions" common to all alternatives will include ecosystem restoration, demand management, screening or consolidation of diversions, water transfers and marketing, conjunctive use, and levee improvements.

Staff will develop criteria for determining whether any particular alternative under consideration by CALFED meets Metropolitan's requirements as identified in the Integrated Resources Plan (IRP). Staff will present draft criteria to Member Agencies and to your Board for review, input, and approval as described below.



## DETAILED REPORT

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On February 15, 1996, the CALFED Bay-Delta Program released twenty draft alternatives for a long-term Bay-Delta management plan. The Bay-Delta Advisory Council (BDAC) reviewed the alternatives the same day. By CALFED's definition, an alternative is "a collection of actions or action categories assembled to provide a comprehensive solution to Bay-Delta problems relating to ecosystem health, water quality, water supply, and system vulnerability." These alternatives were developed through a process that: (1) identified *problems* in the Bay-Delta system; (2) defined *objectives* for the management plan; (3) identified *actions* to meet those objectives; and (4) developed *solution strategies* that grouped *actions* into *alternatives*.

CALFED plans to reduce the list of alternatives to between eight and twelve by March 1996, and to between three and five by May 1996. Alternatives in the final "short-list" likely will combine elements from several of the current twenty alternatives.

The completed short-list of alternatives marks the end of Phase One of the CALFED Bay-Delta Program and initiates Phase Two (development of the PEIS/EIR, which will yield a preferred long-term plan for the Bay-Delta Estuary).

### Overview of CALFED Alternatives

CALFED groups its alternatives into *categories of emphasis*:

- The first group emphasizes system reoperation and reliance on existing facilities. Typical actions in these alternatives include reducing demands, expanding conjunctive use and water transfer programs, pollutant source control, habitat restoration, screening unscreened diversions, and levee improvements.
- The second group emphasizes a combination of reoperating existing facilities and developing new facilities.
- The third group emphasizes new facilities. Options for facilities include isolated or "through-Delta" conveyance structures, modifications of conveyance channels in the Delta, relocating major diversion points, and additional storage reservoirs to the north or south of the Delta.

Common to all alternatives are a number of *Core Actions*, defined as actions "at a specific implementation level that would be included as an element of all CALFED program alternatives." Core Actions include ecosystem restoration, demand management, diversion screening or consolidation, water transfers and marketing, conjunctive use, and levee improvements.

CALFED also has developed principles that any solution must: (1) reduce conflicts in the system; (2) be equitable, solving problems in all identified problem areas; (3) be affordable; (4) be durable, having long-term political and economic viability; (5) be implementable, having broad public acceptance and sound legal authority; and (6) avoid shifting negative impacts from the Bay-Delta to other regions of the State.

### **CALFED's Process For Refining Alternatives**

The current alternatives, taken in isolation, would not yield a fully comprehensive solution. CALFED likely will combine aspects of the current twenty to obtain a comprehensive short-list. CALFED will receive public input over the next three months in order to refine the current twenty into the short-list. This period of public input therefore will be critical.

CALFED expects to follow this schedule:

- **February 26:** CALFED Workshop to review twenty alternatives and facilitate narrowing list of alternatives to eight or ten by late March (completed).
- **April 9-18:** State-wide scoping meetings for input to select short-list of three to five alternatives for inclusion in draft PEIS/EIR. The Southern California public scoping meetings will take place in San Diego on April 16, Los Angeles on April 17, and Bakersfield on April 18.
- **May:** CALFED releases short-list of alternatives for inclusion in draft PEIS/EIR. This would complete Phase One of the CALFED Bay-Delta Program.
- **June 1997:** CALFED issues draft PEIS/EIR.
- **January 1998:** CALFED finalizes PEIS/EIR.

### **Development of Metropolitan's Evaluation Criteria**

Metropolitan's Integrated Resources Plan (IRP) has defined a Preferred Resource Mix to meet its service area's needs over the next 25 years. According to this preferred mix, objectives of water supply enhancement, water quality enhancement, environmental protection, infrastructure reliability, and costs of deliveries can be attained within the context of a long-term management plan for the Bay-Delta. Metropolitan's evaluation of CALFED's alternatives therefore will be completed in a manner that applies evaluation criteria consistent with IRP targets.

The following is a brief overview of the issues this evaluation criteria should address:

- **Environmental Protection:** Evaluation criteria will address how an alternative would affect regulatory certainty (i.e., "deal is a deal" policy) and predictability of supplies from the Bay-Delta and whether an alternative would facilitate an ecosystem approach to habitat enhancement. In addition, the criteria should assess the ability to obtain permits for any of an alternative's capital improvement projects.
- **Water Supply Enhancement:** Evaluation criteria will address water supply impacts of particular CALFED alternatives. During a dry year as defined by the Department of Water Resources (average of 1928-1934 hydrologic period), Metropolitan's Integrated Resource Plan (IRP) assumes 1.0 million acre-feet of State Water Project (SWP) supplies to Metropolitan from improved Delta conveyance. In a normal weather year, Metropolitan's IRP assumes improved Delta conveyance to yield 1.8 million acre-feet to meet consumptive and storage replenishment requirements. These figures and other analyses in the IRP should serve as the starting point for developing Metropolitan's evaluation criteria regarding supply enhancements on the State Water Project.
- **Water Quality Enhancements:** Evaluation criteria will assess how an alternative would affect ability to meet existing and anticipated future drinking water quality standards along with conjunctive use and reclamation requirements. Issues will include total dissolved solids (TDS) and associated requirements for blending State Water Project deliveries with Colorado River supplies (assumed to be 25-50 percent depending on TDS-level of SWP supplies). The criteria also should analyze the potential reduction of disinfection by-products afforded by each alternative.
- **Infrastructure Reliability:** Evaluation criteria will consider how an alternative improves the ability of Bay-Delta conveyance and delivery infrastructure to withstand natural disasters such as earthquakes or floods. Criteria might involve a target amount of time (e.g., six months) to restore full SWP deliveries through utilization of storage capacity or direct deliveries through the California Aqueduct following a major catastrophic event of an assumed magnitude.
- **Costs:** Evaluation criteria should consider to what degree each alternative allows Metropolitan to meet its rate-setting objectives. A specific test is whether an alternative will allow Metropolitan to keep its incremental SWP costs under \$300 per acre-foot.

Staff suggests the following timeline for developing these criteria in cooperation with Member Agencies. Once your Board considers and approves evaluation criteria, staff will share these criteria with CALFED through its Public Input process.

Staff proposes the following schedule:

- **March 5:** Bay-Delta Political Advisory Committee reviews framework for evaluation criteria and provides input.
- **March 11:** Water Planning and Resources Committee reviews framework for evaluation criteria and provides input.
- **March 15:** Member Agency managers review framework and provide input.
- **March 26:** Bay-Delta Political Advisory Committee considers and approves refined evaluation criteria. Framework will be faxed to Member Agencies for review and input.
- **April 9:** Metropolitan Board considers and approves refined evaluation criteria.
- **Shortly after April 9:** Letter conveying Metropolitan's evaluation criteria is submitted to CALFED in its initial "Scoping Workshop."

Staff will continue its efforts to analyze the CALFED alternatives and will give your Board at its March meeting a detailed analysis of which attributes of CALFED's current alternatives would support Metropolitan's interests in water supply, water quality, infrastructure reliability, environmental protection, and cost.

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