

# CALIFORNIA URBAN WATER AGENCIES NEEDS FOR THE STAGED IMPLEMENTATION PROCESS

Adopted September 24, 1999

## I. URBAN OBJECTIVES TO ACHIEVE CALFED'S PROGRAM GOALS

The following objectives must be incorporated into the final Programmatic EIS/EIR and the Record of Decision (ROD) to provide measurable benchmarks for achieving CALFED goals.

**A. Long Term Water Quality Targets --** CALFED's water quality objectives must address contaminant levels of concern for in-Delta, south Delta, and urban export drinking water uses, to ensure protection of public health and support development of local water management programs.

1. **Long-Term Drinking Water Quality Targets --** CUWA urges CALFED to maintain its commitment to improve water quality in the Delta and to achieve long-term source water quality targets for municipal supplies from the Delta of 50 µg/l for bromide and 3.0 mg/l for TOC. These may be met by delta conveyance changes or by providing an equivalent level of public health protection through a cost-effective combination of conveyance changes, alternative source water, source control, and treatment.

2. **Long-Term Salinity Targets -** CALFED should provide for a level of salinity in water diverted from the Delta which supports CALFED recycling and conjunctive use goals in the most cost-effective manner; minimizes dry-year water demands on the Delta; and provides for blended drinking water TDS levels of no more than 500 mg/L<sup>1</sup>. CALFED should adopt a long-term salinity target of 150 mg/L to be met at urban diversion points by 2020.<sup>2</sup> Alternatively, CALFED should achieve an equivalent level of salinity reduction within the urban agencies' service areas through a cost-effective combination of source control; blending with higher quality sources; treatment technologies; and improved state and federal water project operations.

**B. Intermediate Water Quality Milestones --** CALFED must establish intermediate source water quality milestones to be used as indicators of continuous improvement in water quality during Stage 1. The actions required by these milestones must be sufficient to allow urban agencies treating Delta water to comply with drinking water requirements using cost-effective feasible technology.

1. CUWA recommends that CALFED adopt the milestones for bromide and TOC provided in the attached table.

<sup>1</sup> A TDS of no more than 500 mg/L is necessary to ensure compliance with state and federal secondary drinking water standards for consumer acceptance and ensure compliance with Regional Water Quality Control Board Basin Plan standards of use of recycled water.

<sup>2</sup> The recommended short and long-term salinity management targets are intended to be in addition to CALFED's public health based standards for bromide and total organic carbon.

### Proposed Drinking Water Source Water Quality Milestones for the CALFED Program<sup>3</sup>

Safe Drinking Water Act Regulation	Promulgation/ Effective Date	Source Water Quality Milestones At the Effective Date *
Stage 1 D/DBP Rule IESWTR	December 1998/ December 2001	Bromide < 300 µg/L TOC < 4.0 mg/L (Values are quarterly averages.)
Stage 2 D/DBP Rule LT2ESWTR	May 2002/ 2005-2007	Bromide < 100-150 µg/L ** TOC < 3.5 mg/L ** (Values are quarterly averages.)
Stage 3 D/DBP Rule	December 2006/ 2009-2011	Bromide < 50 µg/L ** TOC < 3.0 mg/L ** (Values are monthly averages.)

\* Assumes compliance with existing and proposed drinking water regulations using current best available technology, which is enhanced coagulation or ozone at pH 6.5.

\*\* An equivalent level of public health protection may be achieved using a cost-effective combination of alternative source waters, source control and treatment.

2. **Intermediate Salinity Milestones** - CALFED should adopt a short-term salinity target of 220 mg/L to be met at urban diversion points by the end of Stage 1. Alternatively, CALFED should achieve an equivalent level of salinity reduction within the urban agencies' service areas through a cost-effective combination of source control; blending with higher quality sources; treatment technologies; and improved state and federal water project operations.

#### C. Protecting Existing Water Quality

For those agencies that have a high quality source of water, this quality should be protected and enhanced where feasible.

#### D. Water Supply Reliability Objectives

1. CALFED must set specific goals to improve **water supply reliability** and aggressively pursue their realization for all users of Bay-Delta supplies above the baseline level of the Accord at the time of the 1994 Principles Agreement, taking into account actions to be taken under the CVPIA. CALFED actions must not result in the regulatory taking or reallocation of water from existing water users.

<sup>3</sup> May 20, 1999 CUWA letter to Lester Snow re: Proposed Source Water Quality Milestones for the CALFED Bay-Delta Program

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2. CALFED goals and objectives must not preclude the **development of facilities** necessary to meet the needs of upstream diverters within the areas of origin, or other Bay-Delta water users.
3. CALFED's water transfers element must **promote a streamlined water transfer approval process** and other measures to encourage the development of an efficient water transfer market.

#### E. Ecosystem Quality Objectives

1. CALFED needs to define clear, specific goals for species conservation and/or actions needed to promote recovery of listed and sensitive species.
2. CALFED's Ecosystem Restoration Program must provide a high degree of scientific rigor and accountability by providing an on-going, intensive scientific review process incorporating both local peer review and independent scientific review.
3. A comprehensive, workable Ecosystem Restoration Program is needed that **addresses flow and non-flow factors** including: habitat, harvest management, fish passage and direct mortality, toxic and pollutant reductions, and introduced and invasive species.
4. Additional flows must not be dedicated or acquired without adequate scientific justification. CUWA recognizes that temporary flow increases may be needed to conduct scientific research. Dedication and acquisition of environmental water flows must be linked to an on-going intensive **scientific review process**.
5. An **efficient, effective monitoring and research program** is essential to provide the scientific basis for adaptive management decisions, including for example, a **comprehensive, real-time monitoring program**.
6. **Environmental water use must be managed efficiently** based on sound scientific justification and operated to maximize benefits within a water budget. The environmental water account or another non-regulatory mechanism will be used to provide environmental water.

#### F. Levee Stability Objectives

1. The *Vulnerability* purpose must include measures for reducing the risk of system failure, and include as a goal that adequate deliveries can be restored within **3 months** following a catastrophic interruption in Delta supplies.

## II. URBAN PROCESS REQUIREMENTS TO ACHIEVE CALFED PROGRAM GOALS

### A. Overarching Process Needs

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1. CALFED must ensure that there is **continuous improvement** toward program goals in all program areas throughout all substages of Stage 1. CALFED must provide annual public progress reports on continuous improvement in all program areas and provide opportunities for stakeholders to review and comment.
1. Stakeholders must have **equitable representation and a formal role in every decision-making process**, including the drinking water quality improvement strategy, Delta operations, finance strategy, ecosystem restoration program, and adaptive management decisions on program performance and the need for additional storage and conveyance facilities.
2. Establish a **schedule** and a clearly defined, technically credible **evaluation and decision process** for Delta conveyance improvements including the dual conveyance facility.
3. CALFED needs to include measures of **practicability**, including cost, technological certainty, and logistical feasibility in evaluating actions to achieve program goals and as part of the adaptive management process.
4. Agreement that all contractual and statutory protections afforded to the Delta and the areas of origin will be met and that water supply and quality would not be negatively impacted by CALFED actions. All existing contractual statutory protections, and commitments to area of origin and in-Delta water users must be addressed during the development of implementation and operational agreements and assurances for new CALFED actions and facilities.

#### B. **Drinking Water Quality Improvement Strategy**

1. Inclusion of a defined protocol for **adaptive management decision making** for the Drinking Water Quality Improvement Strategy, defining a clear process and criteria for decisions on the need for an isolated facility, within or referenced in the ROD and a Program Implementation Agreement which calls for the following:
  - a. **Reviews** completed by independent expert panel(s) where appropriate for the Delta Drinking Water Council and **findings** published in 2003 and 2007 assessing:
    - i. Trends in Delta water quality
    - ii. Trends in treatment technology and regulation
    - iii. Recent findings and summary status of human health effects of disinfection byproducts
    - iv. Assessment of ability of conveyance changes, water exchanges and storage development and operations to achieve progress towards drinking water quality objectives
    - v. Assessment of implemented and proposed Stage I water quality actions toward achievement of drinking water quality objectives

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- b. The Delta Drinking Water Council shall recommend changes needed in the CALFED Program to achieve drinking water quality objectives.
  - c. The CALFED **program oversight entity** will report and act on the Delta Drinking Water Council's recommendations in **2003 and 2007**.
  - d. The Delta Drinking Water Council's report will be forwarded to the California State Legislature.
2. The makeup of the **Delta Drinking Water Council** must include representatives from agencies responsible for regulating drinking water, urban drinking water agencies that treat and deliver Delta water supplies, and regions potentially physically affected by facility decisions recommended by the Council. As the regulated community has the most at stake, being both responsible for meeting and paying for compliance with safe drinking water standards, urban drinking water agencies should have a proportionally greater representation on the Delta Drinking Water Council than any other group of representatives. 3. The Delta Drinking Water Council, while proposed to be a BDAC subcommittee, needs to have **direct access and reporting** to the CALFED Water Policy Group as well as to BDAC.
  3. Incorporate **drinking water quality objectives** into the Water Management Strategy, the economic analysis, the Integrated Storage Investigation, and implementation of the Environmental Water Account.
  4. Adopt a **Drinking Water Protection Policy** which includes the development of water quality objectives for TOC, TDS, bromide and pathogens, and the development of a management plan to meet the objectives. Development of this policy is important for achieving drinking water quality improvement, and should include the establishment of a coordinated strategy to reduce the water quality impacts of wastewater discharges and other sources of drinking water contamination. In addition, establishing water quality objectives is key to the future development of TMDLs for drinking water parameters of concern.

### C. Water Management Strategy

1. CALFED should adopt an **integrated resource management approach** to determine cost-effective combination of elements including storage, conservation, recycling, and transfers to be implemented through the Water Management Strategy and to complement the Integrated Storage Investigation.
2. **Programmatic findings under §404** of the Clean Water Act that the amount of surface storage as defined by the Integrated Storage Investigation, and needed for continuous improvement in water quality and water supply reliability, is required as part of the program. This programmatic finding must also define practicable limits

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for other components of the water management strategy such as conservation, recycling, transfers, and groundwater storage.

**D. Comprehensive Assurance Package including Regulatory and Operating Assurances at the time of the ROD**

**1. Regulatory Assurances, including:**

- a. **Programmatic conservation strategy** which shall consider all sources of take.
- b. **Programmatic conservation strategy** which will provide **incidental take authorizations** sufficient to allow take of all covered species resulting from the operations of the system, within the terms of the negotiated Operating Agreement (as described below). That is, when the terms of the Operating Agreement have been negotiated, the effects of incidental take caused by operations will have been analyzed and authorized, and no further action or mitigation will be required other than those measures which have been included in the Operating Agreement.
- c. Agreement that there will be **no "Outliers"**, meaning the CALFED program will take into account all existing issues and proposed projects outside the CALFED program that may affect the water supply, fisheries and water quality objectives of the CALFED program, including, but not limited to, CVPIA and Trinity River Restoration.
- d. Agreement that the SWRCB should support and encourage pending settlements in the Bay-Delta water rights proceeding because they are critical to advancing stakeholder support for the CALFED Bay-Delta program. The voluntary resolution of disputes through negotiated settlements in the allocation of responsibility for meeting Delta outflow requirements is an important element of the CALFED process.

**1. Operating Assurances, set forth in an Operating Agreement must include:**

- a. **Extension of the Accord** through Stage 1 with all associated authorizations.
- b. Agreement that **base authorized operating conditions** are defined by the Accord at the time of the 1994 Principles Agreement, taking into account actions to be taken under the CVPIA, and any additional environmental flows and/or operating criteria will be sought through resources acquired in the Environmental Water Account.
- c. Agreement that neither incidental take authorizations nor operating conditions, set forth in the Operating Agreement will be modified during the terms of the Operating Agreement.
- d. Agreement for **flexible operations** to allow pumps to operate at full capacity at those times and those circumstances described in the Operating Agreement. The

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design of the CALFED monitoring program must provide necessary **real time data** to support flexible operations.

- e. Agreement to establish and implement an Environmental Water Account (EWA) that is coupled with an overall operations agreement to achieve "no surprises" regulatory assurances for water users against further erosion of supplies. The EWA must be sufficiently equipped with assets from the ISI such as new storage, purchase options, efficiency measures, and the ability to apply flexible operations, and must not be operated in a way that degrades water quality. The EWA must allow for sharing of the gains for environmental water quality and water supply purposes commensurate with sources of funding.

1. **Overarching Program Implementation Assurances**, set forth in an **Implementation Agreement** must include:

- a. **Parity in terms and duration** between financing and assurances.
- b. **All Substage 1A projects will be agreed to and fully described** at the time of the ROD, so that all parties may be fully apprised of and be able to fully evaluate whether the CALFED program is implementing aspects of all program elements in a balanced and fair manner.
- c. The Implementation Agreement entered into at the time of the ROD must assure a process which **guarantees that Substages 1B and 1C will also move forward in a balanced and staged fashion** such that progress must be demonstrated by public progress reports subject to review and comment by stakeholders.
- d. Agreement regarding **Governance** structure that provides for broad-based and meaningful input from stakeholders.
- e. Agreement regarding financing Stage 1.

E. **Finance strategy**

1. **The financing plan must be broad-based** and include state and federal.
2. A broad-based Bay-Delta system diversion fee assessed to water users can only be supported if they are linked specifically to **tangible benefits** and are part of a broad, wide-ranging plan that also includes public financing.
3. A broad-based Bay-Delta system diversion fee, if needed to be levied, should be applied to **all users** of Bay-Delta water, instead of targeting exporters and diverters from major tributaries.

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4. Incremental **water gains** developed through program implementation should benefit both water users and the environment, progressing from the cheapest and most cost-effective measures to the most expensive.
5. The **Water Use Efficiency financing provided by CALFED** must not redirect impacts (such as loss of supply) to water users.
6. The finance strategy should include **both a technical phase and a policy phase**. The Technical Phase, between now and December 1999, should be used to develop the necessary technical information to allow stakeholders and beneficiaries to make informed discussions and decisions during the Policy Phase, between December 1999 (or sooner) and May 2000.

#### F. **Ecosystem Process Strategy**

1. Implementation of ecosystem restoration actions should be **scientifically-based** and incorporate an on-going, intensive scientific review process that maximizes benefits, efficiency, and scientific accountability.
2. A well designed **monitoring and research program** is essential to support adaptive management decisions.
3. Agreement that all restoration projects implemented under the Restoration Coordination Program (Category III), Anadromous Fish Restoration Program of CVPIA, and other programs will be **coordinated with the CALFED Ecosystem Program**.
4. An appropriate **organizational structure** which focuses responsibility and accountability is needed to manage program implementation, consolidate similar ecosystem restoration programs, and to make adaptive management decisions.

### III. **COMMITMENT AT THE TIME OF THE ROD**

As a measure of continuous improvement in all program areas, CALFED must commit at the time of the ROD to implement the following projects during Stage 1A (years 2001-2002).

#### A. **Multipurpose Projects**

1. **South Delta improvements:** Obtain necessary permits and implement South Delta Improvement Program, including:
  - a. **8500 cfs Operation at Banks:** In the short-term, complete NEPA/CEQA process and other necessary permitting, design and construction, and begin 8500 cfs operation at Banks Pumping Plant.
  - b. **Joint Point of Diversion**

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- c. **10,300 cfs Operation at Banks:** Complete NEPA/CEQA processes, design, and begin construction of South Delta improvements, to allow operation at 10,300 cfs during Stage 1; with water gains benefiting both the water users and the environment and shared commensurate with funding contributed.
  - d. **Assess impacts on Mokelumne fisheries and identify mitigation measures.**
  - e. **Assess and implement appropriate and cost effective fish mortality mitigation measures.**
2. **Surface Storage:** Continue planning, site selection, and environmental documentation for new off-stream surface storage and expansion of existing surface storage.
  3. **Hood Test Screens and Diversion Facility:** Complete feasibility studies and begin environmental documentation. Studies must examine potential impacts on Mokelumne fishery and identify mitigation measures.
  4. **South of Delta Improvements:** Evaluate and conduct feasibility studies on potential south of Delta improvements such as the O'Neill bypass and San Luis Reservoir bypass facilities to improve water quality in the California Aqueduct and the San Felipe Project.
  5. **In-Delta Channel Improvements:** Plan, design and implement in-Delta channel modifications that protect all in-Delta uses and maximize multiple benefits for habitat, flood conveyance, water quality, and water supply.
  6. **Isolated Facility:** Begin planning and feasibility studies, including the collection and analysis of water quality and biological data to determine the need, sizing, and timing of the isolated Facility. The purpose of the studies is to support the ecosystem and water quality decision process to be defined at the time of the ROD.
  7. **Financial Incentives** for agricultural and urban water management and recycling projects that exceed local cost-effectiveness criteria.
  8. **South-of-Delta Groundwater Storage:** Begin construction of at least one new south-of-Delta groundwater storage project.
  9. **East of Delta Groundwater Recharge and Banking Project:** Implement a groundwater conjunctive use project in area of the Mokelumne, Calaveras, Stanislaus and Farmington basins.
  10. **Funding for Groundwater Basin Modeling,** planning and monitoring in the Central Valley watershed, including implementation of groundwater pilot projects.

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11. Development of an Environmental Water Account for multiple purpose supply and water quality improvement purposes

## **B. Water Quality Improvement Projects**

1. **Drinking Water Protection Policy:** Provide financial and policy level support for the development of a Drinking Water Protection Policy by the Central Valley Regional Water Quality Control Board, working with the State Water Resources Control Board, Department of Health Services, San Francisco Bay Regional Water Quality Control Board, and U.S. Environmental Protection Agency. This policy will include the development of water quality objectives for TOC, TDS, bromide and pathogens, and the development of a management plan to meet the objectives. Development of this policy is important for achieving drinking water quality improvement, and should include the establishment of a coordinated strategy to reduce the water quality impacts of wastewater discharges and other sources of drinking water contamination. In addition, establishing water quality objectives is key to the future development of TMDLs for drinking water parameters of concern.
2. **Salinity Reduction:** Implement salinity reduction work, including operational changes, modifications to in-delta conveyance, and San Joaquin River salinity management.
3. **Veale Tract and Byron Tract Drainage Management Programs:** Complete the Veale Tract and Byron Tract agricultural drainage management programs.
4. **TOC Reduction:** Conduct comprehensive evaluation and pilot programs for reducing TOC from Delta islands drainage.
5. **Recreational Impacts on Drinking Water:** Investigate the strategies to address water quality impacts of recreation on SWP reservoirs.
6. **Barker Slough Watershed Management Project:** Commit to implement the Barker Slough Watershed Management Program in Stage 1 if on-going studies indicate drinking water quality can be improved through watershed management.
7. **South Bay Aqueduct Watershed Management Project:** Conduct a watershed management project to identify potential methods of improving water quality along the South Bay Aqueduct.

## **C. Actions to Implement the Drinking Water Quality Improvement Strategy**

1. **Sources and Loadings of Drinking Water Contaminants:** Conduct a comprehensive evaluation of the sources and loadings of TOC, TDS, bromide, pathogens, and nutrients to the Bay-Delta system, with the eventual goal of implementing total maximum daily load (TMDL) limits for these contaminants.

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2. **Health Effects Studies** – Identify needed public health effects studies to more specifically identify the potential health effects of bromide related DBPs and provide financial and technical support.
3. **Water Treatment Research** – Identify needed studies on brominated and chlorinated disinfection by-product operational controls at water treatment plants and provide financial and technical support to implement incremental improvements as warranted in subsequent sub-stages of Stage 1. Provide financial and technical support to investigate advanced treatment technologies for the removal of TDS, bromide, TOC, and pathogens in urban water supplies.
4. **Alternative Sources of High Quality Water** – Investigate alternative sources of and means of providing high quality water supply for urban users of Delta water and identify legal, water rights, and physical constraints to alternatives.
5. **Operational Modifications** – Evaluate and implement changes in upstream and Delta operations to continuously improve water quality delivered to urban water agencies and improve the quality of water in the Bay-Delta for all beneficial uses without impacting CALFED's goal of continuous improvement in water supply reliability.
6. **Comprehensive Monitoring, Assessment, and Research Program (CMARP)** -- Establish and agreed upon water quality baseline for the Delta and ensure that sufficient monitoring and assessment procedures are in place to monitor drinking water quality parameters at major urban water supply intakes and determine areas where additional improvement in water quality is required.
7. **Review of Data:** Commit to detailed review of drinking water quality and fisheries data, Safe Drinking Water Act regulatory requirements, and effectiveness of all water quality actions during Stage 1 to provide the information needed to support the decision process on the need for an isolated facility or other facilities.