WATER USE EFFICIENCY PROGRAM

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Background/Introduction

The last update provided to the Policy Group on the water use efficiency program was a written report included in the June 4-5, 1998 Policy Group packet. Since that time the focus of efforts has been additional program refinement to address issues and concerns raised by CALFED agencies and stakeholders. This update describes the issues and work activities being pursued to resolve these issues.

Program Description

The Water Use Efficiency component includes CALFED agency actions, assurance mechanisms, and impact analysis related to urban water conservation, agricultural water conservation, water recycling, and effective use of environmental diversions.

CALFED actions are focused on providing the planning assistance, technical assistance, and financing assistance needed by local water suppliers to implement cost-effective conservation programs. Assurance mechanisms are focused on making sure that California is generally using existing supplies efficiently before new supplies are developed, and making sure that a local water supplier's efficient use is a prerequisite to that supplier receiving CALFED benefits such as new water, access to transferred water, or drought water bank supplies.

Major Issues

There are five major issues related to water use efficiency, raised by CALFED agencies or stakeholders, that CALFED staff are working to resolve. The table below summarizes these issues and the work activities under way to resolve them. Additional detail is included below.

Issue	Work Activity
1. Lack of Consensus on Approach to Assurances for Ag Water Conservation	1. Work is Proceeding on Ag "Focus Group" to Advise on Expert Panel or Other Approach
2. Lack of Information on Refuge Water Management; Need for Assurances	2. Better Dissemination of Information; ART Members Will Coordinate with ICP Members on Assurances
3. Disagreement on Details of Urban BMP Certification	3. Working with Stakeholders to Devise Inclusive Process for Input and Decision Making
4. Differences Between Ag MOU and CVPIA Conservation Criteria: Plan Approval, Measurement and Pricing	4. USBR Working with Ag Council to Conform Processes; CALFED Will Develop Policy Options on Measurement and Pricing
5. Disagreement Over EIS/EIR Analysis of Water Use Efficiency Potential and Need for Better Data on Water Use Efficiency	5. Working with DWR and Stakeholders to Resolve Concerns; New Proposed Action for Data Gathering, Monitoring, Focused Research

1. Lack of Consensus on Approach to Assurances for Ag Water Conservation

CALFED has proposed to rely on the Agricultural Water Management Council to certify signatory water suppliers' compliance with the terms of a negotiated MOU as an assurance of efficient water use by agricultural water suppliers. In addition, CALFED proposed acreage targets and time lines for endorsement of water management plans that would be minimum criteria for an acceptable assurance mechanism. This approach has attracted widespread criticism and a very low level of stakeholder support.

To provide guidance on additional or different approaches, CALFED will convene a small focus group of stakeholders and agency representatives. One additional approach may be an expert panel on water use efficiency. The focus group will be asked to advise on the value of an expert panel, the type of expertise that should be included on such a panel, and the questions that should be asked of an expert panel.

A contractor has been selected to facilitate focus group discussions and work is under way on this activity. A revised draft EIS/EIR can commit to continuation of an open collaborative process intended to develop assurance mechanisms that are acceptable to major stakeholder groups.

2. Lack of Information on Refuge Water Management; Need for Assurances

Many stakeholders have called for efficient water use on wildlife refuges as well as in cities and on farms. Practices for effective water use on wildlife refuges have been under development by an Interagency Coordinated Program that includes Reclamation, the Fish and Wildlife Service, and California Fish and Game. Because this effort has proceeded somewhat separately from the CALFED Bay-Delta program, less information has been provided on program development.

In addition, CALFED agencies have called for assurances of efficient use on refuges that correspond to the criteria proposed for other water users: efficient use a prerequisite for access to new supplies or transferred water.

The ICP has issued a final task force report dated June 1998. This report describes

> "...a common methodology for water use planning that promotes the most effective water regimes for refuges while preserving local flexibility for wetland managers. The methodology is presented as a series of water use effectiveness questions that all managers must address as part of the annual water use planning process."

In addition, the report proposes that a water management plan

> "...would be prepared by each refuge. The base plan would be drafted by each refuge by June 1999, and would be submitted to Reclamation for its concurrence by August 1999. The plans would remain valid for a period of five years."

In addition, the report states

> "Refuge managers provide their water delivery schedules early in each year (February or March). As part of this submittal, a yearly update would be provided that addresses the water use effectiveness questions in an abbreviated form."

CALFED staff will continue to coordinate with the ICP, and will work with ICP representatives on additional assurance mechanisms that correspond to the criteria proposed for other water users. A revised draft EIS/EIR can describe the ICP results and commit to consistent assurances of efficient use for urban, agricultural, and environmental diversions.

3. Disagreement on Details of Urban BMP Certification

CALFED has proposed to rely on the California Urban Water Conservation Council to certify signatory water suppliers' compliance with the terms of a negotiated MOU as an assurance of efficient water use by urban water suppliers. The California Urban Water Agencies and the Environmental Water Caucus have taken the lead in developing a detailed process for

certification of compliance. Some smaller urban water suppliers have suggested a somewhat different process for certification. Recently CUWA recommended that CALFED now take the lead in resolving stakeholder differences.

Accordingly, CALFED is initiating a collaborative process with all interested stakeholders to gather input on certification and develop a proposed certification process that has the highest level of acceptability to all interested parties. A revised draft EIS/EIR can describe the status of certification and describe the process CALFED will pursue to refine the details of certification.

4. Differences Between Ag MOU and CVPIA Conservation Criteria: Plan Approval, Measurement and Pricing

The Memorandum of Understanding that governs the operation of the Agricultural Water Management Council has two provisions that have been the subject of much recent discussion. One is a provision regarding water management plans prepared pursuant to CVPIA Conservation Criteria. The MOU states that "Any WMP developed pursuant to the federal criteria may be submitted to the Council for endorsement..."

Federal contractors are concerned over a situation of double jeopardy, being required to gain plan approval from Reclamation and also from the Agricultural Water Management Council. Staff from Reclamation have been working closely with the Council co-chairs in an effort to conform the two processes as much as possible. One concept under discussion would automatically provide Council endorsement for any plan already prepared under CVPIA conservation criteria and approved by Reclamation.

Another provision of the MOU makes it substantially different in approach from the CVPIA Conservation Criteria. The MOU requires each water supplier to "measure or calculate the volume of water delivered within a reasonable range of accuracy," and to "undertake a net benefit analysis" of water measurement. A water supplier's "current form of implementation will suffice if the supplier demonstrates that no other form of measurement or calculation will improve net water management benefits over current practice." Regarding pricing, the Ag MOU requires water suppliers to include pricing or other incentives "in some form in the Water Management Plan." A supplier's "current form of implementation will suffice if the supplier demonstrates that no other form of pricing and incentives will improve net water management benefits over current practice."

On the other hand, the CVPIA Conservation Criteria require districts to "measure, with a device that is rated to have a maximum error of +/- six percent, the volume of water delivered by the District to each customer" and "adopt a water pricing structure for District water users based at least in part on quantity delivered."

In other words, the Bureau's criteria require accurate measurement and volumetric pricing while the Ag MOU offers the flexibility for irrigation districts to continue some other way of estimating deliveries and charging customers for water if costs of change would outweigh benefits.

CALFED stated in its draft EIS/EIR that

> "...CALFED agencies are considering a policy that would place a higher standard of water management on water suppliers that may want to *receive* water from the CALFED program. In order to be eligible to receive new water or receive water through transfers or the DWR Drought Water Bank, CALFED agencies are considering the policy that a water supplier must meet criteria for the measurement of water deliveries and water pricing contained in the *Criteria for Evaluating Water Management Plans* issued by the U. S. Bureau of Reclamation, Mid-Pacific Region, in September 1996. These criteria state that a water supplier or district will:
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> 1. **Measurement devices** - measure, with a device that is rated to have a maximum error of +/- six percent, the volume of water delivered by the District to each customer; and
>
> 2. **Pricing structure** - adopt a water pricing structure for District water users based at least in part on quantity delivered."

CALFED staff are developing options for the Policy Group, taking into consideration:

1. Comments received on the EIS/EIR that pertain to measurement and pricing;
2. The effects that various policy options could have on the Agricultural Water Management Council;
3. Institutional needs for implementation of various policy options; and
4. Implications of various policy options on unmetered urban areas.

An options analysis will be completed in September for CALFED agency consideration and decision, so that the policy decision can be described in the revised draft EIS/EIR.

5. Disagreement Over EIS/EIR Analysis of Water Use Efficiency Potential and Need for Better Data on Water Use Efficiency

Public comments on the EIS/EIR reveal a sharp disagreement over the potential for water conservation: many commenters believe CALFED has underestimated the potential for conservation, while many others believe we have overestimated and place too much reliance on conservation. This issue is closely related to disagreements over content of DWR's draft

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Bulletin 160-98, such as questions on the accuracy of 1995 base year per capita water use calculations.

DWR and CALFED coordinated the simultaneous preparation of Bulletin 160-98 and the draft programmatic EIS/EIR. Differences in analytical approach were acknowledged and explained in both documents. Coordination is continuing as revision of both documents proceeds. CALFED is also coordinating with stakeholder groups ranging from CUWA to the Pacific Institute regarding assumptions and analytical approach. The revised draft EIS/EIR will include a clearer statement of assumptions, some updated data, and a commitment to re-examine and refine the analysis between draft and final. The final EIS/EIR will include refined analysis of conservation potential, along with a discussion of variation in assumptions and the resulting uncertainty in projections of water conservation potential.

A larger issue is imperfect understanding of water use and water management, which hampers any projection of water demand or water conservation. In response to calls for better data on water use and water management, CALFED staff propose a new action for the Water Use Efficiency Program, to be described in the revised draft EIS/EIR and implemented during Stage 1 of CALFED implementation:

Data Gathering, Monitoring, and Focused Research

CALFED agencies will carry out a coordinated program to gather better information on water use, identify opportunities to improve water use efficiency, and measure the effectiveness of conservation practices. This effort will include direct activities by CALFED agencies, assistance to the California Urban Water Conservation Council and the Agricultural Water Management Council, and assistance to local water suppliers in their efforts to quantify the savings from water use efficiency measures.

Examples of activities that may be carried out by CALFED agencies under this program include developing better information on:

5. Basin efficiencies and water balances for the Bay-Delta system and subregions, and the extent of reuse within basins.
6. Identification and quantification of water quality and ecosystem improvements related to changes in local water management.
7. Areal extent of urban landscaped area.
8. Measurement of landscape water use.
9. Distribution and useful life of water using appliances and fixtures.
10. Distribution of irrigation technology by type, soil condition, and crop.
11. Quantification of evaporation versus transpiration and understanding of the relationship between them.
12. Measurement of on-farm efficiency and changes resulting from efficiency improvements..

13. Understanding of per-capita water use and how it is affected by implementation of conservation measures.
14. New efficiency technologies and their potential to affect water use.

This action is related to other water use efficiency actions: CALFED agency support for the California Urban Water Conservation Council and the Agricultural Water Management Council will help these organizations measure the effectiveness of Best Management Practices and Efficient Water Management Practices. DWR support for mobile irrigation laboratories will result in better measurement of on-farm efficiency and better information on trends in irrigation practices and equipment. Technical assistance to local water suppliers will help enable these suppliers to measure the results of implementing conservation measures.

This proposed action is being coordinated with CMARP. Implementation of this action will generate a high level of agency and stakeholder interest; an open process for program direction such as a public advisory committee would help to alleviate stakeholder concerns.