

WATER USE EFFICIENCY COMPONENT

Issue Summary

The three alternatives that are being refined and analyzed during Phase II of the CALFED Bay-Delta Program each share a "common program" of measures to ensure that California's water supplies are used efficiently. This common program of measures is the water use efficiency component. The Water Use Efficiency Work Group was established to assist BDAC by addressing policy issues and making recommendations for use in development of the water use efficiency common program.

Work Group deliberations have helped to identify many areas of consensus among stakeholders. There is strong support for a general CALFED approach that is policy-oriented and based on cost-effectiveness of efficiency measures, preserving local flexibility and leaving decisions on specific measures to local agencies and stakeholder organizations. Work Group participants have also reached agreement on a set of general implementation objectives for the water use efficiency common program, as well as specific implementation objectives and approaches for urban water conservation and agricultural water use efficiency. Approaches include strong roles for balanced stakeholder organizations (the California Urban Water Conservation Council and the new Agricultural Water Management Council) in identifying appropriate efficiency measures for consideration and gathering information on agency implementation. Both approaches also include expanded assistance programs to provide incentives and ensure that lack of financing ability or technical expertise is not an impediment to implementation of cost-effective measures at the local level.

There are several issues that have not been resolved. The most difficult challenge will be providing adequate assurance that appropriate efficiency measures are implemented by local water agencies. CALFED staff has proposed some mechanisms to provide this assurance. Environmental and public interest stakeholders generally support such measures and in some cases feel they are not strong enough, while some water suppliers have rejected such measures or questioned the need for their inclusion.

The agricultural approach proposed by CALFED relies on a voluntary process under the new Agricultural Water Management Council that is expected to result in preparation, endorsement, and initial implementation of plans by a significant majority of districts in the CALFED solution area within two years. If this does not occur, then an element of the CALFED assurance package would include agricultural water management planning and implementation requirements patterned after existing state law that applies to urban agencies.

There is also lack of consensus on assuring implementation of urban conservation measures. CALFED staff has proposed an expanded role for the California Urban Water

Conservation Council, with authority to levy non-compliance fees on urban agencies that fail to implement cost-effective urban Best Management Practices, and to refer difficult cases to the State Water Resources Control Board for waste and unreasonable use action. Meanwhile, a stakeholder group composed of representatives of the California Urban Water Agencies and the Environmental Water Caucus is working independently to develop their own recommendations on a process for Council certification of agency efforts and enforcement mechanisms to assure compliance.

Program staff has also proposed that efficient water use should be a prerequisite for obtaining new supplies made available through the CALFED process, for participating in water transfers, or for receiving water from a Drought Water Bank. Mechanisms to ensure this still need to be developed.

Some long-standing water issues have also been raised in Work Group discussions. One concerns the technical adequacy of an agricultural approach based on the Agricultural Water Management Council and the *Memorandum of Understanding Regarding Efficient Water Management Practices by Agricultural Water Suppliers*. Some stakeholders have criticized the technical adequacy of the efficiency measures in the MOU, particularly the approach to measurement and pricing of water supplies. Another concern is related to cost-effectiveness. For various reasons, many water suppliers are insulated from the true marginal cost of additional supplies. As a result, measures that are cost-effective from a societal standpoint may not be cost-effective to the implementing agency, and desirable efficiency measures may not be implemented. In many cases, a viable and active water market combined with protections for third parties plus technical and financial assistance would make additional efficiency measures cost-effective for water users.

BDAC Considerations

1. The proposed approach to agricultural water use efficiency provides a two-year opportunity for agricultural water users to demonstrate the sufficiency of a voluntary process. The approach includes a "trigger" leading to planning and implementation requirements, patterned after existing state law that applies to urban agencies, in the event that the voluntary process proves inadequate. **Is this an appropriate way for CALFED to provide assurance of agricultural water use efficiency?**
2. The proposed approach to urban water conservation includes an assurance mechanism intended to increase the implementation of cost-effective measures. There is an independent stakeholder effort to develop recommendations on mechanisms to assure compliance. CALFED can define the criteria of an adequate assurance mechanism, allow an opportunity for ongoing stakeholder efforts to yield a proposal, and commit to including an adequate stakeholder proposal or alternative assurance mechanism in a final package of program assurances. **Is this an appropriate way for CALFED to proceed with the development of urban water use efficiency assurances?**

Background

The water use efficiency program is being developed by CALFED staff with policy guidance from BDAC and its Water Use Efficiency Work Group. The five elements included in the program are urban water conservation, agricultural water use efficiency, efficient use of environmental diversions, water recycling, and water transfers. To date, draft descriptions of proposed programs have been prepared for urban water conservation and agricultural water use efficiency. The Work Group has had preliminary discussions regarding other elements of water use efficiency.

The approach to water use efficiency can be summarized in five points:

- **Policy not Technical** CALFED will develop a policy approach to water use efficiency; the program is not expected to become involved in the technical aspects of specific efficiency measures.
- **Cost-Effective** The proposed approach to water use efficiency is founded on cost-effectiveness: generally, efficiency measures should be implemented if they offer a benefit/cost ratio greater than one.
- **Locally Directed** The proposed program relies heavily on locally directed processes -- the California Urban Water Conservation Council and the Agricultural Water Management Council -- to develop consensus on dynamic lists of appropriate water management measures and gather information on local implementation of these measures.
- **Assistance** Increased analysis and implementation of efficiency measures will likely be supported by CALFED agencies through programs that provide planning, technical, and financing assistance.
- **Assurance** An important part of the program will be assurances that existing water supplies are being used efficiently and that agencies are implementing appropriate efficiency measures.

Along with urban water conservation and efficient use of agricultural water supplies, the common program will address two additional efficiency elements: efficient use of water supplies diverted for environmental purposes such as wildlife refuges, and water recycling. In these areas, technical information is less readily available to water managers and there are fewer institutions to support implementation. For these reasons, the approaches proposed by CALFED may be somewhat different from the approaches proposed for urban and agricultural conservation.

In the case of environmental diversions, three CALFED agencies (the U.S. Fish and Wildlife Service, the U.S. Bureau of Reclamation, and the California Department of Fish and Game) are participating in the development of an Interagency Coordinated Program (ICP) for

optimum water use planning on managed wetlands. This effort is expected to result in the identification of a range of wetland water needs, plant and animal species diversity and utilization of wetland habitats, and optimal water management practices for different wetland habitats and water year types. Extensive stakeholder involvement is planned, and a product is expected to be available in October 1997. The role of CALFED may be to identify implementation objectives for efficient use of environmental diversions, communicate these objectives to CALFED agencies participating in the ICP, and help develop appropriate incentives and assurances. Additional input will be solicited from the Water Use Efficiency Work Group.

Regarding water recycling, many local agencies lack the expertise to carry out even a preliminary evaluation of the feasibility of wastewater recycling for their communities. To remedy this, the California Urban Water Agencies and the WaterReuse Association have committed to developing a Standardized Feasibility Analysis Methodology and Workbook. The California Department of Water Resources is assisting with this effort. Stakeholder involvement in the development of the product is anticipated, and a draft is expected to be available by summer 1997. The role of CALFED may be to identify implementation objectives for water recycling, and develop appropriate incentives including vigorous programs to help local agencies with planning, technical analysis, and financing of recycling programs. Due to the technical and legal complexity of water recycling and the high capital costs of developing water recycling programs, a different level of assurance may be appropriate for this element of water use efficiency. Additional input will be solicited from the Water Use Efficiency Work Group.

The final element being considered by the Water Use Efficiency Work Group is water transfers. Although a water transfer may not directly improve physical efficiency, facilitation of a voluntary water transfers market can indirectly lead to improvements in economic efficiency and can prompt improvements in physical efficiency. Water transfers relate to the CALFED Bay-Delta Program in several ways. Conveyance and storage actions in the CALFED alternatives might facilitate transfers. In addition, administrative policies of CALFED agencies could be modified to facilitate the processing and approval of proposed transfers. Finally, the CALFED water transfer element will be guided by five criteria articulated by the Governor in his 1992 water policy statement which are intended to reduce local impacts. [These criteria were discussed at the October 1996 BDAC meeting.] Public policy deliberations regarding water transfers will probably be made in forums other than the Bay-Delta program during 1997, including the California Legislature. Additional input will be solicited from BDAC and the Water Use Efficiency Work Group.