

Natural Resources  
Defense Council



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MEMORANDUM

TO: CALFED Staff  
FROM: Ronnie Weiner  
RE: Demand Management Action Categories and Revised Water Supply Problem Statements  
DATE: October 16, 1995

**I. Demand Management Action Categories**

I was disappointed that the breakout group on demand management at the October 12 CALFED workshop was prevented from meaningfully wrestling with the potential positive and negative impacts of demand management, and with the linkages of demand management to other action categories. Demand management is a critical element of the long-term Bay/Delta solution, and it should not be shunted aside, as suggested by one member of the breakout group. One of the primary tenets of integrated resources planning is that demand-side resources be considered on an even playing field with supply-side resources. I encourage the CALFED staff to pursue this approach.

I have a few specific suggestions regarding the water conservation action category description included in the materials handed out at the October 12 meeting.

**Focus should be on cost-effectiveness of conservation measures.**

The description of constraints on water conservation says that implementing large-scale water conservation programs would be expensive. However, it is meaningless to look at the cost of conservation measures without reference to the potential savings of those measures. The relevant question is not whether conservation is expensive, but rather whether it is cost-effective.

Many conservation measures save significantly more in water and energy costs over the lifetime of the measure than they cost to implement. The cost-effectiveness of these measures will further increase if water prices increase. While initial cost may be a barrier to implementation of these measures, financing options or other incentives can be used to overcome this barrier.

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### **Distinction needed between long-term conservation and shortage management measures.**

The description of constraints also says that "strict water conservation tends to reduce flexibility to reduce water consumption in years of extreme drought." This statement fails to make the important distinction between long-term conservation measures and shortage management measures. Long-term conservation is a resource that should be considered as an alternative to more traditional sources of supply. Shortage management includes measures that are designed to achieve temporary reductions in water use to match a shortfall in current and near term supplies. While the two are related, they are not the same thing.

The degree to which any conservation program actually impedes shortage management will vary with the specific conservation measures implemented. For example, with regard to urban water conservation, the most common drought reduction measures are limiting landscape irrigation and car washing, and reducing indoor water use by flushing toilets less, installing toilet tank displacement devices, and taking shorter showers. Thus, programs that affect these end uses will have an effect on the available savings from curtailing these uses during a drought. However, most people continue to wash their clothing with the same frequency during a drought. Therefore, conservation programs encouraging purchase of horizontal axis washing machines will lower base demand and will not affect the flexibility of reducing water consumption during droughts.

Also, implementation of certain conservation measures require a long lead time, and are therefore not appropriate as shortage management measures. For example, a large scale program of retrofitting industrial cooling towers or lining irrigation canals cannot be done in time to achieve short term rapid reductions in water use. It is therefore more appropriate to consider these as a long-term conservation measures.

Finally, any discussion of conservation should note that implementation of certain long-term conservation measures may dramatically reduce the economic costs associated with drought. For example, urban and agricultural customers who implement high efficiency irrigation systems may be able to sustain their landscapes and crops on the limited supply available during a drought. Those who do not implement such systems may lose the entire value of their landscape or crop.

I suggest rewording the conservation constraints discussion as follows:

Implementing large-scale water conservation programs is a task unfamiliar to many water agencies. Water agencies and their customers may perceive barriers to implementation of conservation measures, including initial cost, new or unfamiliar technology, or interference with established lifestyle patterns and business operations. Permanent reductions in demand may reduce the frequency and severity of water shortages, however, water agencies will need to consider the impacts of long term conservation on their shortage management policies.

## II. Revised Water Supply Problem Statements

We are pleased that the revisions made to the introductory narrative on the water supply problem statement respond to concerns raised by NRDC, EDF, and the Bay Institute in our September 15, 1995 memorandum. However, these concerns need to be better integrated into the numbered water supply problems statements and objectives statements, which still retain a predominantly supply-side focus.