

Year 2000 and 2001 Priority Actions

Environmental Water Purchases - 94

1. General Description of the Action

The volume and timing of streamflows in the Central Valley have been substantially altered. Wetted habitat area has been reduced and environmental cues and migration flows have diminished. Flow fluctuations due to dam operations strand and kill young fish. Reduced flows often result in elevated temperatures.

The Ecosystem Restoration Program Plan has identified the need to augment flows on streams tributary to the Delta by about 400,000 acre feet annually. CALFED is not a regulatory program and all flow augmentation will be done on a willing seller compensated basis. The Ecosystem Restoration Program (ERP) will be buying water rights, developing surface and groundwater storage, developing conjunctive use of groundwater, funding water conservation and purchasing water on the spot market or purchasing options. Each of these tools or opportunities will be required to reach the long-term objective of streamflow augmentation.

2. Cost Estimates

The long-term costs for this program will likely exceed \$200 million. For the early stages of the program, \$20 million is proposed for each year. At present, there is \$14 million in reserve in the Category III Program. The 2000 proposal is for \$6 million and the 2001 estimate is \$20 million.

3. Program Administration and Governance

The program could be administered in-house at CALFED or by the Department of Water Resources or by the U.S. Bureau of Reclamation.

4. Program Coordination

This program will be coordinated with the CALFED Water Use Efficiency; Water Transfer; Water Quality; and Storage and Conveyance Programs. It will also be coordinated with the Environmental Water Account effort. Coordination outside of CALFED will be with the Central Valley Project Improvement Act Program and the Vernalis Adaptive Management Program.

5. Schedule

This is a critical element of the ERP and should be funded as soon as possible.

6. Status

Acquisitions from the Friant Water Authority and Oakdale and the S. San Joaquin I. D. were funded. A request for proposals is being prepared along with acquisition and management guidelines.

Notes to Water Management Strategy Paper

I am not particularly happy with the set of Functions/Objectives already defined. If the question is: what are the characteristics of an improved water management system, I would answer:

1. Improving the benefits derived from water by users, while
2. Reducing the impacts of water operations on ecosystem functions and populations,
3. At low economic cost,
4. Without major negative regional impacts.

All four must be considered simultaneously. They represent a combination of physical and biological objectives with the solution principles. Note that they will frequently be in conflict with each other. This is why coming up with a water management strategy is so complex.

Given this definition, many of the objectives listed in the matrix become means to an end, not ends in and of themselves. That is, they are themselves only tools. For example:

- o Supply predictability will increase the value of water to users because they can plan their investments better. But a system of insurance to compensate users for shortages could provide much the same benefit, without the water.
- o Water users and the environment might both be benefited by increasing supplies during drought. However, agricultural fallowing with market transfers might provide similar benefits at lower cost. Similarly, habitat improvements upstream and screening might allow for improvements in environmental performance during drought without new water.
- o Similarly, increasing operational flexibility is a means to an end -- improved environmental protection, not an end in itself. We might be able to protect the environment without increased operational flexibility through a large isolated system with top quality screens, governed by strict operational rules.

Turning to the tools in the matrix, there are several problems:

- o Each tool has advantages and disadvantages. The matrix format does not allow us to develop synergistic bundles of tools in which advantages are maximized and disadvantages are minimized. Instead, each tool is forced to stand alone. It is not clear how this matrix will inform a coherent water management strategy.
- o There is no systematic consideration of the cost or regional repercussions of each tool. From this matrix, potable reuse with ocean disposal of brine will look like the salvation of California. So will transfers, despite the political and equity problems with moving quickly on a major water transfer program.
- o There is a need for several additional tools:
 - o Change intake locations
 - o Diversion technology (screens)
 - o Operations for water quality (e.g., can we operate to improve drinking water quality).

- o Operations for environmental benefits (probably the same as "diversion management")
- o Conveyance. This is a key piece of infrastructure which allows us to access storage. For example, we cannot access large amounts of groundwater storage without significant increases in our conveyance infrastructure. Perhaps it can be combined with storage. I just don't want our discussion of storage to be limited to what can be accessed with existing conveyance.

I have prepared the descriptive sections more or less as given to me with some additions. However, I would like to discuss whether or not it makes sense to modify our objectives categories (the tools are less problematic). We should meet soon to fill in the matrix.