

Date: December 11, 1998

To: Ron Ott

From: Ed Winkler

Subject: Phase II Report Language Regarding Facilities/EWA/Ops. Criteria

**1. Is EWA Implementable?**

- Yes. It is not only implementable but also probably essential for moving forward with a CALFED agreement. The EWA would greatly increase the flexibility of the system to accommodate environmental enhancements in ways that minimize or eliminate risks to the water users. The EWA approach is a vehicle to allow additional environmental actions (even experimentation) in an atmosphere of great uncertainty. Water users have stepped forward with proposals to lease existing storage assets (approximately 300 TAF south-of-Delta ground-water and 50 TAF surface storage) that can be available throughout the first stage of CALFED (7-10) years as CALFED progresses toward developing additional needed storage.
- The alternative to an EWA is the prescriptive standards approach, which has proven not to work for the environment or the water users. Any attempt by CALFED (or others) to implement additional standards over and above today's conditions (Accord plus upstream AFRP) in ways that takes water away from the water users will not result in a successful or implementable CALFED outcome. Any such attempt will be vigorously opposed on the basis of scientific uncertainty, unreasonable economic impacts as well as it would constitute a violation of CALFED's principle of continuous improvement. In addition, none of the CVPIA-related AFRP actions is implementable against the SWP; DWR's policy is not to implement any in-Delta AFRP measures if it would entail water costs to either state or federal contractors. The November 20, 1997 DOI final administrative proposal stated Interior's intent to implement "tools" or water management measures to offset impacts associated with the AFRP actions; therefore, use of the EWA for this purpose is appropriate.
- Regarding accounting mechanisms, the three-year simulation exercise demonstrated that accounting on a gallon-for-gallon basis can be achieved. Additional staff resources will be needed to accomplish this.
- The preferred initial implementation of the EWA is to integrate real-time EWA decisions with SWP/CVP operations planning as operations progress throughout the year. This serves to minimize risks while allowing efficient decision-making based upon resources available and fish-monitoring results.

- Implementation of the EWA in a given month needs to be constrained by the size of the EWA at any given time. In other words, the environmental manager must stay within a secured real-water budget just as water operators do. For example, if the initial EWA is sized at 450 TAF (150 TAF extractable ground water, 50 TAF surface water, and 100 TAF option purchase) the additional environmental actions (or costs) in the first year must not accumulate to over 300 TAF in that year to stay within the EWA budget. These costs are incurred whenever the environmental manager implements an action above the existing Accord conditions.
- Provisions should be made to allow the EWA to grow, if necessary and feasible, during the first stage of CALFED (7-10 years). Possible mechanisms to allow growth include:
  - Securing additional option-purchase and/or storage contracts (and necessary funding)
  - Flexible management of existing criteria as knowledge increases and trust builds.
- Provisions should be made to integrate environmental credits earned by the water users for actions such as:
  - Screens, predation control or other actions that reduce mortality compared with current conditions.
  - Mortality reduction associated with purchased harvest reduction.

## **2. Is the Fish Protection Adequate?**

- Clearly, a 450 TAF initial EWA will provide substantial additional environmental enhancements depending on the type of year. Our studies suggest that at a minimum, all of the AFRP measures can be accomplished in a given year with this account, and in most years, substantially more protection is achievable at the discretion of the environmental manager. The most difficult years to achieve protections beyond the AFRP are prolonged drought years – the same types of years that water users are experiencing shortages. In the drier years, additional EWA water can be achieved by flexing the E/I ratio (or other criteria) at the discretion of the environmental manager to add further protections at other times.
- The approximate operating cost for such an EWA is \_\_\_million to \_\_\_ million per year (includes JPOD wheeling, storage options, and purchase options). Capital costs, such as for Banks expansion, are not included here.

### **3. Is Water Supply Adequate?**

- Our studies indicate that by increasing the flexibility of the Banks pumping plant to 8,500 cfs on Day 1, and permitting unlimited Joint Point of Diversion along with securing a 450 TAF EWA to accomplish AFRP plus additional discretionary environmental enhancements (to the degree EWA water is available) will allow water users to benefit by about 120 TAF/year on average (very little in drought years).
- The additional flexibility afforded by a 10,300 cfs Banks pumping plant along with 200 TAF in-Delta storage and 400 TAF Madera Ranch groundwater project in year 4 would allow modest increases in both water user benefits and flexibility to achieve further environmental actions.
- The addition of new CALFED storage at the end of stage 1 will offer further opportunities to increase supplies for the environment and water users.
- It should be noted that the remaining flexibility of the CVP and SWP would be strained to the limit to implement the EWA and additional environmental actions in stage one. This is a particular issue with the SWP, which via JPOD, would assist both the federal users and the environment through greater cycling of Oroville and use of SWP wheeling capacity. These benefits need to be equitably accounted for.
- Agreements need to be reached regarding apportionment of water supply benefits and costs among water users and environmental resources.

### **4. What Actions are required for Water Quality improvement?**

- This is a key issue for in-Delta users and export urban users, and it must be addressed. To the extent possible, operation of the EWA needs to be self-mitigating. An example would be proposed cross-channel closures in the fall/early winter. These closures need to be contingent on the real-time salinity gradient in the western/central Delta. An example of this is the criteria established for the 1997 Spring-run protection plan. When salinity rose to a certain level at key stations, a cross-channel opening was triggered until such time as the salinities improved. This type of criteria can be refined to account for tides and fish monitoring to optimize fish protection while not degrading water quality. Although politically sensitive, a small amount (1000 – 2000 cfs out of 20,000 to 30,000 cfs) of X2 flexing in the spring (determined by the environmental manager) could be used to augment outflow in the fall to mitigate the EWA-induced operations.
- The shift in exports from the spring to the fall is a definite water quality concern, and needs to be taken into account by the environmental manager as well as the

project operators. Again, sufficient environmental assets must be in place to assure a “no-harm” operation.

- Water Quality implications of the EWA operation should be weighed in light of the full CALFED package. To the degree that the water quality common program actions (i.e. source control, discharge relocations) improve conditions, this should be accounted for. Water exchanges to improve water quality also fall in this category. The 2000 cfs Hood test facility would go a long way toward mitigating EWA operations on water quality.