



Memorandum

Date: April 7, 1999

To: CALFED Policy Group
From: *eggs*
Lester A. Snow

Subject: Water Management Strategy--Environmental Water Account

Summary

The DNCT/EWA team has completed "gaming" their first scenario. Primary rules for managing EWA and an accounting method were tested and preliminary biological rules were applied. As a result of the gaming exercise, **all members agreed that an Environmental Water Account has definite potential to provide long term benefits to fishery resources. The team recommended that EWA gaming and evaluation should continue to refine the size and mix of assets, rules of operation and evaluation and accounting procedure.**

Action: Information

Detailed Discussion

On March 25th, 26th, 30th, and April 1st, the DNCT conducted a simulation to better understand how an Environmental Water Account (EWA) might have been operated, if it had existed during the 1991 through 1995 water years. The EWA would be, effectively, a water project for the environment. The EWA would have income, rights to facilities, and the ability to buy and sell water. It would also have the right to manipulate the operations of the state and federal Projects, provided that it could assure that the Projects would not be harmed by EWA activities. In this simulation, the EWA controlled a network of high (and low) priority storage rights from Shasta Dam, to Delta Island storage, to the Kern Water Bank. The EWA controlled a series of contracts giving it the right to purchase water in any given year. It had the right to allow variances to the Export/Inflow standard in order to generate environmental water. Finally it had an income of \$30 million per year.

CALFED Agencies

California The Resources Agency
Department of Fish and Game
Department of Water Resources
California Environmental Protection Agency
State Water Resources Control Board

Federal Environmental Protection Agency
Department of the Interior
Fish and Wildlife Service
Bureau of Reclamation
U.S. Army Corps of Engineers

Department of Agriculture
Natural Resources Conservation Service
Department of Commerce
National Marine Fisheries Service

Using this collection of facilities, contracts, rights, and income, the DNCT demonstrated that it is possible to make major shifts in Project operations to protect fish and to improve habitat conditions without reducing water supplies to the water users. The DNCT continues to analyze the extent of the biological benefits generated during the course of the game, but the initial impression from members of the DNCT has been very positive. A summary of operational insights gained in the gaming process and the level of benefit provided by each asset will be presented to the Policy Group.

Additional simulations will be run within the next few weeks to evaluate the EWA using different assumptions about baseline conditions, EWA assets, accounting approaches, and other criteria. The DNCT will also attempt to allow some re-operation to improve user water quality.

Recommendations from the Quinn/Spear group:

At the April 2, 1999 Quinn/Spear meeting the following guidance was given to the gaming team.

1. Future gaming should integrate and track: biological, water supply and water quality. Active management of the game by the players should occur for all three resource areas.
2. The team should consider the following before reporting back to the Quinn/Spear group:
 - Use infrastructure that will be developed by the end of Stage 1.
 - Run game with and without ERP flows.
 - Agency biologist are satisfied.
 - Water supply/water quality users are satisfied.
 - Run option where EWA gets water from a contract.
 - Run option where EWA is in the form of a "credit" approach.
3. A final report of the EWA evaluation should include:
 - Primary rules for managing the EWA and accounting for its water
 - A general approach for biological rules
 - Evaluation of biological, water, and water quality impacts
 - Recommendations and request of CMARP
 - A plan to implement the account

Schedule:

- Gaming using the recommendations above: April 20, 22, 27, 29; May 4, 6
- Report results of gaming to Quinn/Spear group: May 11
- Report results of gaming to Policy/BDAC: May 12
- Draft Report May 30