



The Bay Institute

of San Francisco

"Restoring The Bay's ecosystem ... from the Sierra to the sea."

July 10, 1998

Mark Cowin
 Assistant Director
 Technical Services Branch
 CalFed Bay-Delta Program
 1416 Ninth Street, Suite 1148
 Sacramento, CA 95814

Re: Reoperation Scenarios

Dear Mark,

As per our conversation the other day, and as is suggested in the Environmental Water Caucus's comments on the CalFed DEIS, I have briefly described the reoperation scenarios that we have been working on and would like CalFed to run using DWRSIM.

Our basic hypothesis is that it is possible to meet existing demands, while providing increased protection for fisheries, by optimizing the current Delta configuration and then by using other tools such as water transfers, additional groundwater storage, conjunctive use, conservation and recycling mechanisms, etc. As a first step in our efforts to test this hypothesis we have done an initial set of reoperation runs that uses flexibility in response to sensitive periods. For example, the typical early filling of San Luis puts certain species at risk and often leaves the projects unable to move available water later in the winter when flows are higher and subsequently when there may be less risk of adverse impact to aquatic resources.

We used the base case Study 516, which does not represent existing demands but rather 2020 LOD, and built in the conditions listed below. We would like CalFed to do similar runs.

Reoperation to provide for improved fisheries protection:

- Reduce (40% and 50% E/I ratio) fall-winter pumping (October - December) delaying the filling of San Luis.
- Extend VAMP for 1 month (May 15 - June 15) to cover the outmigration period of San Joaquin salmon.

Reoperation to provide for operational flexibility which allows for water recovery during less sensitive periods:

- Reoperating reservoirs to increase the ability to move water north to south during the summer - early fall period.
- Expand SWP capacity to take advantage of high flow periods.

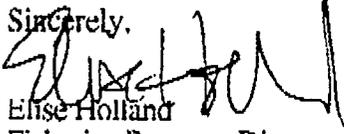
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Our preliminary results indicate that despite the fact that in some years there may be limited opportunity for the projects to recover from imposed delivery impacts in the fall, other operational flexibility tools incorporated into the model allow for significant make-up possibilities. In fact, our preliminary analyses indicate that supply impacts can be avoided (relative to the base case) when SWP capacity is increased. However, increasing capacity at SWP does not always improve delivery capability. In wetter years demand may be low enough that the existing export capacity is sufficient to meet demand. In the drier years, however, the benefits are accentuated. The benefits may or may not hold during extended dry periods or in critical period runs, yet in the isolated dry periods when the windows of surplus are short the extra capacity may help considerably.

The next level of studies might consider use of JPOD, though at present there is little consensus on what criteria might be applied. If CalFed has developed criteria to accompany use of JPOD we would be interested in learning about those.

Thank you for your assistance. We look forward to the modeling results.

Sincerely,



Elise Holland

Fisheries Program Director

cc: Gary Bardini, CalFed
Spreck Rosekrans, EDF
David Fullerton, NHI