

9/5/97

Follow-up to this Meeting resulted in Memo to B. Suits to Bellory Fong - 9/15/97

DISCUSSION TOPICS REGARDING DWRSIM AND DWRDSM

Simulated operations and facilities effects on flow, reservoir storage, and diversions were not available for incorporation in the draft Environmental Impacts Technical Report for Fisheries and Aquatic Resources completed in July, 1997. CALFED recognized the need to incorporate simulated flow, reservoir storage, and diversion changes in subsequent revisions to the draft technical report.

Information regarding DWRSIM and DWRDSM simulation of facility and operations differences between the CALFED Programmatic EIR/EIS alternatives has been provided to the Fisheries and Aquatic Resources Impact Assessment Team, including CALFED Bay-Delta Program System Operation Modeling Studies for Impact Team Analysis (August 13, 1997), draft Surface Water Hydrology Technical Report (July 1997), draft Water Supply & Water Management Technical Report (July 1997), and Status Reports on Technical Studies for the Storage and Conveyance Refinement Process (August 4, 1997). Additional simulated data is available at specific Internet sites.

The Impact Assessment Team for Fisheries and Aquatic Resources has identified questions and discussion topics that fall into the following 4 categories:

- Inconsistencies between DWRSIM and DWRDSM assumptions,
- DWRSIM questions and limitations of the results, and
- DWRDSM questions and limitations and unexplained occurrences in the results.

INCONSISTENCIES BETWEEN DWRSIM AND DWRDSM ASSUMPTIONS

1. The minimum through Delta conveyance with the isolated facility is:

- 3,000 cfs for all months in DWRSIM (page 6), (Fr CALFED BAY/DELTA Rpt dated 8/16)
- although, Delta standards with isolated conveyance in DWRSIM is the same as in DWRDSM on page 11,
- 1,000 cfs for July through March and 0 cfs for April through June in DWRDSM

2. The maximum allowable isolated facility conveyance fraction is:

- 0.70 in DWRSIM, \rightarrow out per Mark
- ? in DWRDSM.

3. The isolated facility capacity is:
 - 5,000 cfs in DWRSIM,
 - 15,000 cfs in DWRDSM.

DWRSIM QUESTIONS AND LIMITATIONS OF THE RESULTS

The following questions arise primarily from "CALFED Bay-Delta Program System Operation Modeling Studies for Impact Team Analysis" (August 13, 1997)

1. Under No-Action conditions, it is unclear what change in river flow may be attributable to CVPIA actions. Is there any assumption of reoperation to meet CVPIA flow recommendations? Is there any assumption, other than B2 water, regarding flow acquisition? Since CVPIA flows are referred to in the ERPP, would benefits of meeting CVPIA flows accrue to the common program in all alternatives? How would these be simulated?

2. On page 5, the simulated conveyance facility operations are stated to be governed by the export/inflow ratio restrictions. On page 11, however, it is noted that the isolated flow may not be included in the E/I ratio. Unless the E/I ratio will be specifically identified as part of the operations criteria for the isolated facility, it seems important to evaluate the system with and without inclusion of the isolated flow in the E/I ratio. Exclusion of the isolated flow from the E/I ratio seems like a logical step considering that the stated purpose of the E/I ratio was to replace QWEST criteria.

3. On page 5, it is then stated that the isolated conveyance studies with the existing E/I ratio in place will provide no additional water supply benefits. This seems somewhat misleading since the isolated facility should allow relaxation of the export restrictions, similar to south Delta improvements.

4. The storage evaluation is limited. Unless CALFED new storage is limited to the offstream storage that is simulated, it seems like additional simulation is needed. Also, since earlier documentation identified reservoir enlargement as the first priority, why is the second priority (off-stream storage) the condition simulated?

Enlg of existing "On stream" not modeled - Low priority Sims will address off stream storage

5. What is meant by "preserve the rivers natural fluvial geomorphological processes"? Is this based on relationships to sediment movement or floodplain inundation? *ie. 60000 cfs*

6. Why is new storage north of the Delta only operated for SWP needs (i.e., effects on Oroville storage and Feather River flows)? It seems like new storage should have a broad range of application, especially for the environmental water that could be traded for flow on tributaries, north and south of the Delta. *M.C. Interpretation of Benefits req'd in distinguishing between "Env" & "SWP" water*

7. Why is filling of off-stream storage limited to water in excess of the export ratio requirement (page 5)? What exactly does this mean? Is filling of storage considered as part of exports? Or is

all that is meant is that filling of storage would not be allowed to reduce exports?

8. South of Delta Storage: How are transfers from upstream reservoirs simulated? Why wouldn't transfers be made to new storage upstream of the Delta?
9. Environmental Water Supply Operations (ERPP): Is there some way to simulate a range of operation flexibility (adaptive management possibilities) to meet Environmental flow needs (including seasonal diversion reductions) without affecting water supply; simulate the range of operations changes with use of environmental water from new storage and new reoperation opportunities in general; new operations opportunities with new conveyance facilities and any other sources of water and potential reoperation for environmental purposes?
10. Is there any simulation of the effects of Suisun Marsh gate operation on salinity (i.e., X2 location)? Are changes in water use in Suisun Marsh considered under the alternatives simulations, especially regarding potential salinity changes?
11. Will information from DWRDSM on the salinity effects of Delta configuration be incorporated in the DWRSIM modeling?
12. The paragraph on page 11 is very confusing. Isn't Wilkens Slough downstream of Chico Landing? If so, why is a flow event target identified for Wilkens Slough diversion?

DWRDSM QUESTIONS AND LIMITATIONS AND UNEXPLAINED OCCURRENCES IN THE RESULTS

Questions relate primarily to information included in "Status Reports on Technical Studies for the Storage and Conveyance Refinement Process" (August 4, 1997)

1. The simulations all used flow and operations data from DWRSIM 472B. DWRSIM 472B supposedly includes exports with South Delta Improvements that allow relaxation of the export limitations. How is this addressed for Alternative 1A?
2. Is there some way to represent the potential range of effects that may result from habitat restoration that would occur under the common programs (ERPP)?
3. Is the effect of change in Delta structure (i.e., channel dredging, island flooding) adequately reflected in the analysis, including the effects on tidal flow and mixing?
4. Is the existing Clifton Court Forbay intake structure still operable in addition to the new intake (30,000 cfs capacity)? What is the capacity of the existing intake structure? *15K*
existing gate will not be abandoned
5. Is the intake structure on Tyler Island a fixed weir (Alternative 2E)? Is there any operations potential?

6. On page 16, would Hood pumping for the through Delta alternatives always match the total export from Banks and Tracy (up to 10,000 cfs)? *2D & 2F*

7. For figures 19 through 22, why were these converted to regression lines rather than plots of simulated flows? *Bob - Data Points Available - upon request - FTP*

8. In Figure 29, why is the mass remaining under Alternative 2D less than the mass remaining under 2B? In Figure 30, why is the mass remaining under Alternative 2D similar to the mass remaining under 2B? *Bob unclear - will get back to Warren*

9. In Figure 32, why is the mass remaining greater for Alternative 1A than for 1C, 2E, etc.? *Barrier @ old River - possible answer*

10. In Figure 35, why is the proportion diverted onto Delta islands different than under Alts. 1A and 1C? Why is the proportion in the Delta under 2B similar to Alt. 2D?

11. In Figure 36, why is the export proportion so much greater under 1A and 1C than under 2B and 2D? Why is the export proportion under 2E greater than under 2B and 2D?

12. In Figure 49, why does X2 shift when Delta outflow is constant for all Alternatives? Is a 2km shift considered model noise?

13. There are some errors remaining in Appendix C figures (e.g., Figure C-9, Rio Vista flow), but they appear to be minor.