TMH Draft on Hood Language: For General RTC on Conveyance
12/02/99

Comment Response CR16 on PC/Isolated Facility

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CALFED's Delta Conveyance Strategy

CALFED's strategy is to develop a through-Delta conveyance alternative based on the existing Delta configuration with some modifications, evaluate its effectiveness, and add additional conveyance and/or other water management actions if necessary to achieve CALFED goals and objectives. The initial through-Delta conveyance will be continually monitored, analyzed, and improved to maximize the potential of the through-Delta approach to meet CALFED goals and objectives, consistent with the CALFED Solution Principles. If the through-Delta conveyance fails to meet the CALFED goals and objectives, there will be a reassessment of the reasons and the need for additional Delta conveyance and/or water management actions.

Because of the many complex interactions within the Bay-Delta system, successfully implementing a through-Delta strategy requires careful balancing of actions to address a wide range of concerns, including water quality, flood control, fisheries, water levels, circulation patterns, channel scour and sediment deposition. Actions which improve water quality and flow direction in one region of concern, for example, may in turn create adverse impacts elsewhere. The understanding of these complex hydrodynamic, biological, and chemical interactions is still incomplete so it will be necessary to approach the optimization of CALFED's strategy with a high degree of cooperation, rigorous monitoring, scientific analysis, and an open-minded approach to solution options. It will also be essential that the implementation of proposed solution actions be linked so that the appropriate balance of benefits and impacts is maintained throughout the implementation period.

As noted above, CALFED has identified two factors, export water quality and diversion effects on fisheries, as especially important for evaluating the effectiveness of the CALFED conveyance alternative. These and other factors will be continually reevaluated during Stage 1 as part of the adaptive management process. Under the Preferred Program Alternative, some additional actions may be taken to enhance the through-Delta alternative.

As part of the Preferred Program Alternative, CALFED will study and evaluate a screened diversion structure on the Sacramento River *at Hood with a range of diversion capacities up to 4,000 cfs* ~~(or equivalent water quality actions)~~ as a measure to improve drinking water quality in the event that the Water Quality Program measures do not result in adequate improvements toward CALFED drinking water quality goals. ~~This evaluation would consider how to operate the Delta Cross Channel in conjunction with this new diversion structure to improve drinking water quality, while maintaining fish recovery.~~ *The CALFED Program has committed to a target for drinking water*

quality of either average concentrations at the south and central Delta drinking water intakes of 50 ug/L bromide and 3.0 mg/L total organic carbon or an equivalent level of public health protection using a cost effective combination of alternative source waters, source control, and treatment technologies. The Hood diversion facility is being evaluated as part of the Preferred Program Alternative because of concerns that increased closures of the Delta Cross Channel for fish protection will have adverse impacts on water quality in the central and south Delta. Modeling performed during evaluation of CALFED alternatives suggests that fish friendly reoperation of the Delta Cross Channel may result in increases in total dissolved solids and in total bromides. The Hood diversion site was chosen because it provides a good balance of physical features which minimizes effects on delta smelt migration, reduces diversion of sediment from the river, and reduces tidal influences on fish screen effectiveness, while providing topographic and geologic conditions that would allow a diversion structure to be constructed near sea level, on mineral soils, and through mostly agricultural lands. The Hood diversion would likely include a fish screen, pumps, and a channel between the Sacramento and Mokelumne Rivers.

Serious fishery concerns exist about a Hood diversion, even as a contingent action. These concerns center on possible disruption to fish migration patterns. Although a screened diversion on the Sacramento River would keep out-migrating salmon in the Sacramento River, flows from the Sacramento into the Mokelumne system may attract adult returning salmon to the downstream side of the screens. This "back of the screen" phenomenon could result in stranding or potential increased mortality associated with a fish passage structure. More broadly, the concern exists that the negative fisheries impacts associated with the Hood diversion may actually be greater than the positive benefits associated with the Delta Cross Channel closure that may produce the water quality degradation. As a result, we have structured the potential Hood diversion as a contingent action to be considered only after three separate assessments are satisfactorily completed: first, a thorough assessment of Delta Cross Channel operation strategies, and confirmation of continued concern over water quality impacts from Delta Cross Channel operations; second, a thorough evaluation of the technical viability of a Hood diversion facility; and third, satisfactory resolution of the fisheries impacts concerns described above. We anticipate that these three assessments will be shared with the Delta Drinking Water Council and the expert panel evaluating fish impacts of Delta conveyance.

~~If the Water Quality Program measures are consistently not achieving water quality goals, and the evaluation demonstrates that a screened diversion of up to 4,000 cfs would help achieve those goals without adversely affecting fish populations; a pilot screened diversion would be constructed. This pilot would likely include a fish screen, pumps and a channel between the Sacramento and Mokelumne Rivers. The design, size and operating rules for this pilot facility would allow for analyses of impacts to upstream and downstream migrating fish as well as impacts from habitat shifts resulting from increased flows in the eastern Delta on Delta species. Following evaluation of the pilot facility operations, a final decision would be made on whether the diversion channel and structure should continue to be used, and if so, what the operational rules and optimum size of the diversion should be.~~

A Hood diversion, if ultimately constructed, would be located in the same corridor that has been

identified as the best route for an isolated facility. This suggests that the design of the Hood diversion should be compatible with a future isolated facility, should an isolated facility be required in the future. It is important to reiterate that an isolated facility is not part of the CALFED Preferred Program Alternative.

~~If a pilot diversion at Hood was found to be necessary, it would be located within the same corridor that was identified as best suited for an isolated facility. If in fact the pilot diversion facility was approved and constructed, it would be prudent use of the funding to insure that it would be compatible with the needs of an isolated facility, if one was ever required in the future. It is important to reiterate that an isolated facility is not part of CALFED Preferred Program Alternative.~~

Other actions to enhance the CALFED conveyance strategy, such that CALFED goals and objectives could be achieved, would require consideration of a variety of alternatives and evaluation of available new information. This evaluation would take place in a supplemental programmatic evaluation focused on the goals and objectives that have not been achieved in addition to project-level evaluations. For example, if ongoing evaluation indicates that CALFED is not achieving its goals and objectives using the through-Delta alternative, supplemental programmatic evaluation of a number of water management options, including an isolated conveyance facility, would be conducted and a decision made based on this evaluation.

CALFED recognizes the need to develop solutions to the conveyance issues that provide appropriate balance in meeting all of CALFED's goals and objectives. CALFED believes that benefits to water quality and water supply reliability gained by conveyance improvements in Stage 1 and beyond must be shared between both consumptive and environmental water uses. Defining how the benefits are shared for particular projects will be determined during the implementation process.