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SOUTH-DELTA FISH FACILITIES CO-CHAIR'S REPORT: SOME POLICY CONCLUSIONS

Preamble

The South Delta Fish Facilities Forum (Forum) was created in 2002 by CALFED to address questions regarding investments in fish screens in the South Delta as part of the CALFED Bay-Delta Program. The CALFED Record of Decision (ROD) directs the design and construction of new fish screens at the Clifton Court Forebay (CCF) and Tracy pumping plant to allow export facilities to pump at full capacity more often. A subsequent agreement between the state Department of Water Resources, Department of Fish and Game, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, NOAA Fisheries, and CALFED Bay-Delta Program recommends a "modular" approach to South Delta fish screens intended to afford maximum protection to fisheries in the Delta. However, the costs of this approach could be as high as $1.7 billion. Because of concerns about the costs and effectiveness of such a strategy, the Forum has engaged in a participative process with stakeholders and outside experts to explore the ROD strategy as well as alternatives. The charge of the Forum is to make recommendations to the California Bay-Delta Authority and the state and federal agencies regarding the best direction in the future for pursuing investments in fish screens in the South Delta. The Forum Co-Chairs agree that this charge must be fulfilled in a manner consistent with ensuring maximum benefits for fish populations and habitat given available resources and, accordingly, that cost-effectiveness and binding assurances should be a central consideration in guiding future investment decisions. This white paper summarizes the conclusions of the Co-Chairs based on nearly two years of public meetings.

Overview of Conclusions

The Co-Chairs believe that investment decisions to protect and restore fish populations, including fish screens in the south Delta, should be guided by the overall goal of achieving existing federal and state population targets by using available financial resources in the most cost effective manner possible. Based on considerable dialogue and public input through the Forum process, we believe that the best strategy involves implementing immediate actions to remedy known facility deficiencies, completing investigations on alternative facility and operational strategies to assess future options, and developing a long term facility strategy in the context of implementing other actions that can achieve functionally equivalent estuary and fisheries benefits. This long-term strategy must be developed with agency and stakeholder involvement to ensure that it is both scientifically sound and backed with binding assurances. Based on available information, other alternatives exist that will be significantly more productive and cost-effective in meeting fishery objectives than the modular approach. However, pending the development and effective implementation of such alternatives, the Co-Chairs are not

eliminating the possibility that future facility actions might, including the modular screening approach.

Once developed, this strategy will be included in the appropriate CALFED program plans (Conveyance, Ecosystem Restoration, and Science programs) and integrated into the Environmental Water Account. Financing these assurances through CALFED's 10-Year Finance Plan must also be ensured before any alternatives are dropped from consideration.

Conclusions

1) **Phased Decision-Making:** Decisions about South Delta fish screens should be phased with earlier investments. Phased decision-making may provide incremental gains at modest cost.

2) **Science:** Additional science is necessary to support investment decisions in fish facilities, particularly regarding some significant issues related to long-term decisions. Focused and tactical investigations should be encouraged to address tradeoffs and action benefits. Focused investigations such as the proposed South Delta Hydrodynamic and Fisheries Investigations, and the Collection, Handling, Transportation, and Release (CHTR) studies outlined below are such examples. However, waiting for answers to these larger questions should not delay near-term actions to improve protections for fisheries in the South Delta. The Co-Chairs recognize that some long-term decisions may be based on the best available science at the time a decision is needed.

3) **Assurances:** Any portfolio of investments to protect and restore fisheries should be subject to binding commitments among the resource agencies, project operators, and interested parties to assure financing and effective implementation. These investments should be crafted to meet the restoration targets for Delta species identified in the Ecosystem Restoration Plan's Multi-Species Conservation Strategy (MSCS). Since these assurances and actions will involve commitments, participation, and cooperation of other CALFED programs and interest groups, the Co-Chairs propose that the CALFED agencies develop a thorough and transparent public process that addresses functionally equivalent actions and assurances. The Co-Chairs believe that functionally equivalent alternatives to major new screening facilities should be investigated for cost effectiveness of fisheries benefits. A comparative analysis between facility options and alternative operational strategies and additional habitat investments should be conducted. If there are more cost-effective strategies that can increase fish populations than the South Delta modular screening alternatives, they should be pursued. However, absent firm commitments to actually implement alternative strategies to protect and restore fish populations of concern with quantifiable improvements, the regulatory agencies must retain their commitment to the actions identified in the ROD and the state and federal endangered species acts and act in accordance to their public trust responsibilities.

4) **Adequate Funding:** Actions identified in any assurance agreement must be contingent on the availability of adequate funding to implement the alternative. The Co-Chairs recommend that such funding with firm commitments from public, water user, and other sources consistent with the beneficiaries-pay principle be included in the 10 year finance plan now under development by the CBDA. The 10-Year Finance Plan should also protect funds in Propositions 13 and 50 intended to improve fish screens in the South Delta for that purpose.

5) **Immediate Actions:** The Co-Chairs strongly recommend that all necessary actions be taken to improve the function of the existing SWP and CVP fish facilities in the South Delta to assure effective fish protection despite changing Delta conditions. To improve fish protection relative to current conditions the fish facilities should be modified and/or operated to achieve to the maximum practical extent the original performance objectives required for the louver facilities. The SWP and CVP operators will seek regulatory agency review and approval for proposed modifications and changes in operations. Immediate facility actions include those identified in the Operations Criteria and Plan (OCAP) and its associated Biological Opinions, as well as those mandated through the Central Valley Project Improvement Act (CVPIA). Immediate actions also include initiating feasibility studies and continuing facility research activities that will assist in determining the feasibility and cost effectiveness of future actions and modifications.

   Fish facility actions should be evaluated as they are implemented to assess fish protection improvements. This information, as well as results from the proposed feasibility investigations listed below, will be analyzed by the implementing and regulatory agencies to determine long-term cost effective strategies.

   Improvement actions will be the responsibility of the implementing agencies. Schedules and budgets for action items will be integrated into the appropriate CALFED Program Plans consistent with the 10-Year Finance Plan. Immediate actions, some of which are ongoing, should include but are not limited to the following:

   - Conducting a feasibility study to develop an approach to reduce predation losses in CCF. This study will examine the hydraulic and facility impacts of alternatives that reconfigure flows to the Skinner Fish Facility with the intent to reduce CCF predation losses. A predator study plan will be developed around technically feasible alternatives to investigate potential improvements in fish survival. The Co-Chairs agree that proposals to "bypass" CCF and screen water at the existing screening facilities at the Banks pumping plant **before** the water enters the CCF, essentially converting the forebay into an afterbay, have considerable merit.
   - Improving debris-handling operations at the existing facilities to improve both fish protection and operational efficiency. Specific actions include

providing automated cleaning systems for the SWP and CVP trash racks, cleaning systems for the CVP's primary and secondary louver cleaning systems, and substantially reducing the debris that enters the fish trucks. New systems should minimize or eliminate salvage operation disruptions, including constructing redundant channels or holding systems if necessary. A phased improvement to the CVP's bypass and holding system, described below, is another immediate action that will reduce debris impacts.

- Completing the CHTR studies to identify facility or operational actions that will increase survival of delta smelt during collection, handling, transportation, and release. Recommendations on implementing these actions will be considered as information is available or upon study completion (2006).
- Completing the proposed South Delta hydrodynamics, water quality, and fish movement studies to identify better operational strategies that minimize fish entrainment at the export facilities. These studies will also be used to investigate future operations and facilities related to possible CCF reconfigurations.
- Phasing-in replacement of the CVP secondary louvers and fish holding facility to improve fish collection efficiency and protection by increasing bypass flows, improving debris management, and improving operational efficiency. This new system would connect the existing bypass pipes to "fish friendly" pumps (to provide higher bypass flows) and connect them to above-ground holding tanks. Lower bypass flows and low water levels have been identified as some of the major hydraulic deficiencies that impact fish collection efficiency. In addition, the above-ground holding tanks can reduce the debris impacts that cause fish injury and mortality in the CHTR process. Implementing these facility changes at the SWP facility may be considered after experience with this system.
- Improving water weed control measures for CCF.
- Reviewing and implementing, as appropriate, operations at the state and federal fish facilities to improve, as necessary, staffing, equipment and standard operating procedures.

6) **Long-Term Investments:** Long-term investment decisions should be consistent with CALFED Bay-Delta Program principles. Specifically, the basis for comparing facility actions with other actions should focus on its contribution to protecting Delta species as identified in the ERP's MSCS. Investments will be based on adaptive decision making strategies, progress on actions that meet fish population target objectives, evaluations of alternative facility investigations as described above and best available science. The Co-Chairs believe that the following considerations should guide long-term investment strategies in the South Delta:

- The modular screening strategy should not be pursued so long as a cost-effective alternative that provides increased abundance in fish populations and supporting habitat is adequately financed and its implementation is assured.
- Fish facility criteria should not be driven by delta smelt considerations but instead on cost effectiveness considerations so long as the alternative strategy meets the MSCS objectives for Delta species. Tradeoffs between South Delta screen costs and operational modifications and habitat investments elsewhere should be evaluated in the analysis.
- Operational strategies to protect and restore delta smelt are likely to be more productive and cost effective than large expenditures on South Delta screens. The Co-Chairs recommend that the CALFED Agencies develop specific operational strategies with comparable lifecycle cost estimates to determine functionally equivalent actions and assurances for protecting delta smelt.
- Long-term assurance agreements should be developed with agency and stakeholder input in a public process. Specific action items resulting from these assurances should be adopted in the CALFED 10-Year Finance Plan, and incorporated into the program plans of the Conveyance, Ecosystem Restoration, and Science programs and the Environmental Water Account.