



**CONTRA COSTA
WATER DISTRICT**

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Ms. Ann Hayden
Water Resource Analyst
Environmental Defense Fund
California Regional Office
123 Mission Street, 28th Floor
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Re: Bay-Delta Conservation Plan Modeling Assumptions

Dear ^{Jerry}Mr. Johns and ^{Ann}Ms. Hayden,

Contra Costa Water District (CCWD) is an active participant in the Bay-Delta Conservation Plan (BDCP) process; CCWD sits on the Steering Committee as an interested party, and participates in the Habitat Operations Technical Team and the Conveyance Workgroup. CCWD is concerned that the analysis now under way has a number of weaknesses that will compromise its usefulness in developing and evaluating the BDCP alternatives. CCWD offers the following comments to you as Co-Chairs of the Conveyance Workgroup in the hope that the development of the plan will be complete and the analysis can be strengthened:

State and Federal legal requirements must be met

The "Reference Scenario" under consideration by the BDCP Workgroups is based on the assumption that state and federal water quality standards governing salinity at drinking water intakes to protect municipal and industrial use need not be met. However, these standards are non-discretionary legal requirements protecting drinking water supply and the Delta. They are required by Public Law 99-546, 27 October 1986, an Act to implement the Coordinated Operations Agreement, which requires the Secretary of the Interior to operate the Central Valley Project to meet the water quality standards at the intake to the Contra Costa Canal as adopted by the State Water Board on August 16, 1978. They are also required by State Water Resources Control Board Water Right Decision 1641.

CCWD is concerned about the usefulness of analysis for scenarios that could not be implemented under the law, and is of course concerned about the assumption that the standards protecting CCWD's water quality are somehow unnecessary or will not be met. Recent results from the BDCP modeling of an isolated facility show that the standards would be missed by a wide margin. While sensitivity analysis is useful

and CCWD believes many options can be explored, CCWD believes this assumption in the *Reference* Scenario is unjustified and unnecessary.

Adequate Sacramento and Delta Flows are needed

Modeling of the BDCP Reference Scenario includes the assumption that any flow in the Sacramento River greater than 5,000 cubic feet per second can be diverted into the isolated facility and around the Delta. This assumption risks providing insufficient flows in the river and Delta for ecosystem needs.

At a minimum, the principle of balancing the ecosystem, water quality, recreation, and water supply needs in the Delta would require that Sacramento River flow above 5,000 cubic feet per second be shared. Some alternatives have been proposed to the BDCP and CCWD agrees they should be explored in alternative scenarios.

Adequate Sutter and Steamboat Slough Flows are needed

Sutter and Steamboat Sloughs are key routes for outmigrating salmon in the Sacramento River system and could become more important routes in the future. The survival rate of salmon entering these sloughs is likely to be greater than that of salmon that stay in the main stem of the river and reach Walnut Grove, where they may be drawn into the Central and South Delta. Fish that enter Sutter and Steamboat Sloughs have access to habitat areas around Cache Slough and face a reduced risk of entrainment at the south Delta export pumps.

However, field measurements by the United States Geological Survey suggest that the proportion of flow entering these sloughs decreases as the flow in the main stem of the river decreases. Thus, an isolated facility with an intake upstream of Sutter and Steamboat Sloughs (for example, at Hood) would result in less flow and fewer fish entering the sloughs, with potentially significant harmful effects.

The BDCP should give serious consideration to alternatives that avoid these effects, including provision of adequate flows for salmon and protection of their migration corridors. Alternatives that include a small isolated facility, better location of its intake, and assurance of adequate flows will best protect outmigrating salmon. Furthermore, a small facility is more likely to allow a high-performance side-of-channel fish screen, like the proven fish screen at CCWD's Old River intake, providing protection for smelt and other species as well as salmon.

Oversizing the Isolated Facility will create a stranded or non-performing asset

In one recent BDCP analysis of an alternative that includes a large isolated facility, the full 15,000 cubic feet per second assumed capacity of the facility is never used, and in several analyses use of a large facility showed that diversions greater than 10,000 cubic feet per second would be infrequent. This suggests that such a large facility risks becoming a stranded or non-performing asset much of the time. To minimize harm to the Delta and its tributaries, and to

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maximize the economic efficiency of any facility for environmental, water quality, and water supply needs, alternatives with a significantly smaller pipeline capacity should be evaluated. This would also eliminate the need to install the world's largest fish screen on the Sacramento River, the performance of which is speculative.

As CCWD has previously shown, a 2,500 cubic feet per second facility could provide for all the exporters' urban needs with very low impacts. A smaller facility could be operated to assure adequate flows in the Sacramento River and could be located downstream of Hood to avoid impacts to the Steamboat and Sutter Slough flows. It could be constructed as a buried pipeline, far more resistant to damage from earthquakes or floods than a 15,000 cubic feet per second unlined earthen canal that is essentially two long levees built over liquefiable soils that also will be subject to failure should the islands through which it is built ever flood.

A small facility would work well with the concepts being developed for south Delta habitat and water supply corridors that include positive barrier screening of the export pumps that greatly reduces or eliminates entrainment while providing a bypass corridor for protection of aquatic species. Studies show that moderate exports in the South Delta have much reduced impacts on fisheries; when combined with screens, entrainment of fish can be vastly reduced. Such an arrangement can be optimized for water supplies and the ecosystem, provides balance in flows and water quality, and greatly reduces costs compared to other alternatives. CCWD suggests serious exploration of alternatives incorporating these concepts.

X2 estuarine habitat objectives should only be modified to improve protection of aquatic species

The Habitat Operations Technical Team is considering a proposal to examine relaxation of the State Water Resources Control Board's estuarine habitat standard, referred to as "X2". This proposal is similar to the original proposal for X2 that was rejected when the standard was developed in part because it either reduced Delta variability or cost large amounts of water without necessarily providing ecosystem benefits. This current proposal similarly does not appear to provide fisheries benefits; rather, it appears to make it easier to export water from the Delta. CCWD believes fisheries protections should be enhanced, not relaxed, and any proposals to modify the X2 standard should improve protection of aquatic species.

CCWD appreciates your consideration of these important issues. If you have any questions, please call me at (925) 688-8100.

Yours sincerely,



Gregory Gartrell
Assistant General Manager

GG/kc