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The Honorable Gerald H. Meral, PhD
Deputy Secretary
Natural Resources Agency
1416 Ninth Street, Ste 1311
Sacramento, CA 95814

Subject: Alternatives for the Bay-Delta Conservation Plan and Environmental Impact Statement/ Environmental Impact Report

Dear ~~Secretary~~ Jerry Meral:

Contra Costa Water District (CCWD) is pleased to see that the Alternatives for the Bay-Delta Conservation Plan (BDCP) include a broad range of conveyance sizes (August 2011 Update[1] to the BDCP). However, the Alternatives are missing key components that CCWD suggested in previous scoping comments; those components would improve the likelihood that the Alternatives will meet the BDCP purpose and needs. As proposed, Alternatives 1 through 5 (including 1A, 2A, 2B and 4A) are not likely to meet the purpose and needs of the BDCP. With not much more information about the Alternatives except the recently released table, CCWD would like to take this opportunity to provide formal comments on the Alternatives for the Bay-Delta Conservation Plan and to request that the BDCP Effects Analysis and the environmental impact analysis incorporate these modifications into the proposed Alternatives.

1) Positive Barrier Fish Screens. All alternatives except Alternative 3 (which excludes export pumping from the existing SWP and CVP South Delta export facilities) should include a minimum of 3,000 cfs of positive barrier fish screens to be added to the South Delta export facilities. It is known that the existing conditions at Clifton Court Forebay result in 70% to 99% losses of salmon and Delta smelt before the fish salvage facilities. Positive barrier fish screens will eliminate a large fraction of fish take of all species, particularly during periods when exports are the most limited. With positive barrier fish screens operational, reducing direct and indirect losses at the export facilities, the most restrictive pumping levels may be increased (i.e. at times when exports are currently limited to 1,500 cfs, exports could be increased to 3,000 cfs if the diversions are properly screened). Consequently, positive barrier fish screens can improve both water supply reliability and fisheries.

[1] Released at the Public Meeting on August 11, 2011.

Positive barrier screens are also likely to obviate the need for a barrier at the head of Old River. The proposed barrier operations, in combination with low pumping in the South Delta, are very likely to have severe adverse impacts to aquatic species and to water quality, including but not limited to increased salinity, organic carbon, nutrients, algal blooms and microcystis. If the positive barrier fish screens preclude the need for the barrier, the project could avoid these significant impacts.

The optimal screen capacity for each alternative will depend on a number of factors, including the lowest pumping levels in the South Delta at sensitive time periods. A minimum of 3,000 cfs combined screening capability at the south Delta facilities should be considered in alignment with low level pumping in the spring.

Note that addition of positive barrier fish screens does not substantially add to the analysis already planned. They simply modify the manner in which take is calculated in the South Delta. CCWD has substantial experience in making such calculations, because (as you know) all of CCWD's intakes are screened and CCWD has many years of actual data proving screen effectiveness. CCWD has done this analysis for several recent projects. CCWD would be happy to provide information on its fish screens and the methodology for analyzing them if desired.

2) Alternative 2B. Alternative 2B should be modified to make it a viable project option. At your urging, CCWD has worked with your staff to develop operating criteria for this Alternative. With the exception of positive barrier fish screens at the existing SWP and CVP export facilities in the South Delta, and a corresponding increase in the pumping allowance in the spring, CCWD's recommendations have been adopted. CCWD also requests that in addition to including the screens and increased pumping allowance, Alternative 2B include the following characteristics:

   a. Construction to include one tunnel (not two tunnels as has been included in some descriptions). Other than to increase construction costs (thereby making the project less appealing), there is no reason for two tunnels. The purpose and needs can be met with one tunnel.

   b. The tunnel should be sized to allow gravity flow at 3,000 cfs, and to allow a flow between 4,500 cfs and 6,000 cfs with low-pressure pumping that could be added later, if needed. Diameter and pressure levels should be determined to minimize overall present worth costs (capital and pumping) in the event the higher flow rates become necessary due to changed conditions in the future. Of course, the effects and environmental impacts of increasing the capacity, if

an increase in capacity were found to be necessary in the future, are already covered under Alternative 2.

c. If desired, the land right of way could be acquired in an amount that would support a second tunnel if needed for conditions 50-100 years from now.

3) Staging and trigger points. All alternatives except Alternative 5 should be analyzed with staged implementation of facilities and habitat restoration as part of the concept. Clearly, the BDCP habitat restoration and facility construction will need to occur over time in a balanced way to ensure the co-equal goals are achieved through time in a balanced way. It would put one goal ahead of the other to assume, for example, that all facilities get built initially, but habitat restoration moves forward in a "wait and see" mode.

There is much uncertainty in the future and if all of the facilities being considered were implemented initially, there would be no flexibility to adapt when the actual future conditions are substantially different than our assumptions today. The chances that a facility built today will exactly meets the needs of 50 years from now are nearly zero. It would not be prudent to guess at what is needed given the amount of money that is at stake. The document must thoroughly consider staging to have a realistic view of how the plan can adapt over the changing conditions in time.

The importance of staging implementation is also supported by fundamental engineering economics. Even if it were possible to predict with certainty what the conditions will be 50 years from now, it is more cost effective to build for what is needed over a timeframe where we have a high confidence level in the future and allow for changes to be constructed in the future. This is no different than storage in the SWP and CVP that has been added over time and continues to be planned for the future. The storage projects being considered today are different than those considered in the past because circumstances have changed (for example, storage projects planned 50 years ago are now precluded by the Wild and Scenic River designations).

A staging approach is already being considered for habitat restoration in the BDCP because the impacts and benefits are not known and cannot be known: they have to be learned as they are implemented. That is equally true for new conveyance: the exact benefits and impacts of conveyance facilities are unknown and will remain unknown (which is precisely why there is a focus on "adaptive management" in operations). For example, the "Potentially Regulated Entities" have consistently submitted evidence in court that their pumping has no effect on fish population levels. If that is true, there are minimal benefits from simply moving the intakes, while at the same time there are potentially serious impacts

from increasing pumping. In order to have a adequate and complete analysis, staged implementation of conveyance facilities must be included as part of the Alternative descriptions for Alternatives 1, 1A, 2, 2A, 2B, 3, 4 and 4A.

As part of the staging analysis, appropriate trigger points for moving to the next stage should be analyzed. For example, much is made of potential future sea level, but measurements show that the current rate of sea level rise is about 3 cm per decade (or about a foot per century). If sea level is a factor in the decision, then a trigger could be the attainment of 60 cm of sea level rise which allows plenty of time for the design level of 140 cm (55 inches). Another trigger factor could be a necessary reduction in South Delta pumping (for example, average year South Delta pumping falls below 3.5 MAF per year). The exact triggers should be developed through the analysis, but must be included in the documentation.

Thank you for the opportunity to provide these comments on the Alternatives. CCWD looks forward to reviewing the results of the analyses as the BDCP progresses. Please include these comments in the Administrative Records for the BDCP and its Environmental Impact Statement/ Environmental Impact Report.

If you have any questions, do not hesitate to contact me.

Sincerely,

Greg Gartrell
Assistant General Manager

GG/rlr

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