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WATER DISTRICT**

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Public Comment  
Bay-Delta Plan Supplemental NOP  
Deadline: 04/25/12 by 12 noon

*By email to [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov) and postal delivery*

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April 25, 2012

Mr. Charles Hoppin, Chair  
Francis Spivey-Weber, Vice Chair  
Tam M. Doduc, Member  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814



**Subject: Scoping Comments Regarding Environmental Documentation for the Comprehensive Review of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary**

Dear Chair Hoppin and Members of the State Water Resources Control Board:

Contra Costa Water District (CCWD) appreciates this opportunity to provide comments in response to the State Water Resources Control Board (State Water Board) Supplemental Notice of Preparation (NOP) for the Update and Implementation of the Water Quality Control Plan (WQCP) for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary dated January 24, 2012.

The NOP indicates that the State Water Board's August 2010 report "Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem" (2010 Delta Flow Report) will be considered in the comprehensive review. That report explicitly recognized the need to balance competing beneficial uses. In apportioning responsibility for water rights holders to contribute to Delta flow objectives, the State Water Board must take into account existing operational requirements for the protection of fisheries; an example regarding CCWD's operations is provided below. In addition, we urge the State Water Board to be mindful of the intent of the watershed protection statute and the Delta Protection Act (Water Code Sections 11460-11465 and 12200-12205).

CCWD provides the following recommendations regarding implementation of any possible flow objectives concerning (1) Old and Middle River net flow and (2) unimpaired hydrology. Furthermore, CCWD requests that the State Water Board evaluate effects on water quality of any potential changes to the WQCP, and ensure that the changes to be implemented will not degrade drinking water quality for in-Delta water users.

**(1) Old and Middle River Net Flows**

Old and Middle River flows have been regulated as a way to reduce take of listed species at the State Water Project (SWP) and Central Valley Project (CVP) pumping plants near Tracy. If the Board is to consider objectives regarding net flow in Old and Middle River (OMR), implementation should protect targeted aquatic species without placing undue restrictions on water operations that are unrelated to such take.

***CCWD diversions are fully mitigated.***

Each of CCWD's four water intakes in the Delta is equipped with positive barrier fish screens operated and maintained according to DFG, NMFS and USFWS guidance for fishery protection. CCWD reduces diversions for 75 to 90 days each year to protect Delta fisheries; during this time, CCWD does not divert any water to storage in Los Vaqueros Reservoir. Concurrent with this period, CCWD ceases all Delta diversions for 30 days each year, meeting water demands with stored water from Los Vaqueros Reservoir. These operational requirements are included as terms in the water right permits for both CCWD and Reclamation. The purpose of these actions is to minimize take of listed species under the Federal Endangered Species Act (ESA) and the California ESA, as well as other resident Delta species. These facilities and operations, along with development of habitat in mitigation of any remaining impacts, allowed DFG to conclude in 2009 that the effects of CCWD operations on Delta fish are fully mitigated. In 2010, NMFS and USFWS expressed similar levels of confidence in determining that CCWD operations, including the operation of the Los Vaqueros Reservoir Expansion Project, is not likely to adversely affect the Delta fish species regulated by these agencies.

***Old and Middle River Flow Regulation***

The implementation of the current OMR net flow regulations in the 2008 USFWS Biological Opinion (BO) and the 2009 NMFS BO can create an avoidable conflict that has no bearing on the intent of the regulation. This is a consequence of the implementation, which relies on flow gauges that can be affected by local agricultural diversions and CCWD diversions as well as the tides, San Joaquin River inflow and the export pumping at the Banks and Jones facilities. The latter three influences (tides, San Joaquin River flow and pumping at the Banks and Jones facilities) can be shown to be orders of magnitude larger than the first two; San Joaquin River inflow and exports can be shown to be the only factors related to take at the Banks and Jones export facilities. CCWD pumping has a small effect on OMR net flows, but CCWD diversions have no effect on take at the Banks and Jones facilities. As the SWP and CVP modify operations to meet the OMR requirements, they coordinate with CCWD and sometimes request that CCWD reduce diversions to assist in meeting the current OMR regulations. These reductions of CCWD diversions create a potential water supply and water quality impact for CCWD customers without benefiting fish protections.



Since CCWD has implemented fishery protection measures that already minimize take at its facilities and has fully mitigated for fishery effects in the Delta, it is not reasonable to have CCWD operations be further affected by the OMR flow regulations intended to limit take at the Banks and Jones facilities. Similarly, it is not reasonable that the Delta water exports of the CVP and SWP be further limited by CCWD operations because CCWD diversions do not affect take at the SWP and CVP facilities. CCWD diversions should be explicitly removed from the regulation of OMR flows, and appropriate levels of CVP and SWP exports should be regulated for fish protection. This can and should be done in a way that protects fisheries and does not adversely impact the SWP and CVP exports. If implementation of new OMR restrictions in the WQCP relies upon the existing flow gauges, the restrictions should be formulated to explicitly remove the effect of CCWD's operations. For example, instead of requiring -2500 cfs net OMR flow, the requirement should be for -2500 cfs minus CCWD diversions at the Old and Middle River Intakes. Such a requirement can be shown to result in no adverse impacts to either fisheries or the export pumping.

### **(2) Unimpaired Flows**

Many of the criteria in the 2010 Delta Flow Report are expressed as a percentage of unimpaired flows. Due to the variable nature of California hydrology, an implementable policy will require careful examination and revision. For instance, early efforts to develop the current X2 standard used a simple methodology that failed to account for changing hydrology. The approach was not implementable, and after an 18 month iterative process of study, review, and revision that involved academics, state and federal regulatory agencies, environmental groups, and water users, an X2 standard was proposed that was eventually adopted. In the simplest example of the complexity, the unimpaired flow for any month will not be known until the month has passed: the X2 standard was confronted with a similar paradox and, through creative work and careful study, a methodology was developed that is flexible, adjusts to the hydrology and could be implemented.

CCWD recommends that the implementation strategy for any flow objectives that are expressed as a percentage, or as variable percentages, of unimpaired flow be developed in an open process that brings together stakeholders from different regions and expertise to avoid any unintended consequences. The objectives should be flexible in a way that protects all beneficial uses to the maximum extent possible, and should have off-ramps to avoid unintended consequences. See the attachment to this letter for description of some of the issues to be considered.

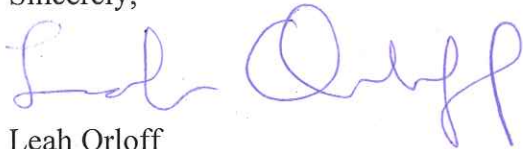
### **(3) Water Quality Impacts**

Finally, CCWD takes note that the current WQCP includes specific protection for municipal and industrial water quality. The current WQCP also includes environmental water quality protections that have a secondary effect of also protecting drinking water

quality. Any changes made to the current WQCP objectives should be reviewed for potential effects on degradation of Delta drinking water quality. In particular, lowering Delta outflow in dry years is likely to have the unintended consequence of creating impacts to drinking water quality as well as creating adverse conditions for native species.

Thank you for this opportunity to provide input regarding the WQCP periodic review. If you have any questions, please call me at (925) 688-8083, or call Deanna Sereno at (925) 688-8079.

Sincerely,



Leah Orloff  
Water Resources Manager

cc: Les Grober, SWRCB  
Diane Riddle, SWRCB  
Karen Niiya, SWRCB



**Attachment: Unimpaired Flow Considerations**

If objectives are set for in-channel flow as a percentage of unimpaired flow, implementation must be strategically designed to allow flexibility, and to avoid any unintended consequences. Key issues that should be addressed include:

Consequences of reservoir reoperation.

Initial studies of flow objectives based on a percentage of unimpaired flow show a decrease in reservoir storage levels. Reducing the cold water storage in the reservoirs could impact the ability to provide temperature control in streams downstream of the reservoirs for protection of salmon. Furthermore, changes in reservoir operation may affect hydropower generation, which would have both economic and environmental impacts. These impacts should be addressed in the environmental documentation.

Effects of dry year shortages.

Currently, up to 70% of unimpaired flow remains in the channels in wet years, while only 30% remains in the channels in dry years. The recent independent review by the National Academy of Sciences echoed many local experts, recommending that water diversions be shifted to take less water out of the system in dry years and take more water from the system in wet years. This balancing requires storage. Without storage from wet years to boost dry year supplies, reducing dry year diversions will have water supply impacts with serious implications for the state economy. These impacts should be addressed in the environmental documentation. Implementation of reduced dry year diversions would need to be phased to allow sufficient time for construction of new storage to mitigate for these impacts.

Issues with real-time operation and forecasting water deliveries.

Unimpaired hydrology is not accurately estimated in real-time, and there is no method to forecast unimpaired flows as hydrology changes throughout the year. The best current estimates of unimpaired flows are produced as a "hind-cast", once flow data have been collected and appropriate quality assurance is performed. A requirement to operate the rivers and Delta to a real-time unimpaired flow standard would require new methodology to be developed for determining flows, both in real-time and providing forecasts that would provide the basis for water delivery estimates early enough in the year to allow proper water use planning. This methodology should be carefully considered, and developed as part of the upcoming process, so that unintended consequences do not result.

Appropriate use of unimpaired flow.

Unimpaired hydrology is a useful indicator of runoff timing and magnitude under the current, highly modified system. However, unimpaired flow is a calculated value that does not represent historical flow conditions and does not represent natural flow conditions. River flows prior to European settlement were affected by a very different landscape, with vast floodplains that attenuated flood flows. Compared to the current physical landscape, the pre-settlement floodplains would have resulted in lower in-

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channel peak flow that lasted much later into the season due to drainage of floodplains. Higher groundwater tables would have also provided additional summer base flow in the river channels. These system effects are not captured in the unimpaired hydrograph. The unimpaired hydrology is a good reference for comparison against other possible operation of the current system, but it is important to remember that this hydrology is not the same as “natural” flows and that imposing a regime based on unimpaired inflows in the current physical landscape will not necessarily achieve optimal conditions for the Delta ecosystem. Rather, objectives should use all available information and resources to optimize the use of the system.

Physical System Improvements and Phasing of Objectives. A flow regime that will contribute to the recovery of Delta fisheries will require storage, flood plain improvements, changes to habitat and channels, setback levees, riparian vegetation: in short, large scale changes to the entire system. The State Water Board should consider flexibility in implementation that allows adjustments for future actions that will modify the system in a manner that improves the efficacy of Delta flow.