VIA ELECTRONIC SUBMISSION AND MAIL



April 25, 2012

Jeanine Townsend
Clerk to the Board
State Water resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Subject: Scoping comments for the review of the 2006 Water Quality Control Plan

Dear Ms. Townsend:

These comments respond to the Supplemental Notice of Preparation and Notice of Scoping Meeting regarding the State Water Resources Control Board's (SWRCB) review of the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta) (WQCP). Much of the content we are responding to was originally posted in the SWRCB's Staff Report of August 2009.

As described in the staff report, many of the aquatic resources and beneficial uses of the estuary have declined sharply over the last 10 years, making an assessment of the adequacy of the WQCP in protecting these beneficial uses urgently needed. The primary regulatory response to these recent issues has been via the State and federal Endangered Species acts. The Board's responsibilities and authorities for protecting beneficial uses are broader and more comprehensive and potentially affect a wider range of water users than just the state and federal water projects.

EPA is very supportive of the SWRCB's expeditious review of the WQCP. In our February 2011 Advanced Notice of Proposed Rulemaking (ANPR), EPA identified the evaluation of Estuarine Habitat protection as one of the major issues facing regulators and water managers in the Bay Delta Estuary. The comments we received, as well as the recent scientific advances in understanding the Estuary, confirm our belief that the WQCP review should be a high priority. As you know, the Delta Stewardship Council's draft Delta Plan similarly encourages timely Board action on the WQCP review, calling for a new WQCP by June 2014. Finally, as we noted in our letter to the SWRCB dated February 9, 2012, EPA believes that completing the WQCP is critical to the success of the Bay Delta Conservation Plan (BDCP). The BDCP seeks to achieve the dual goals of endangered species protection and water supply reliability primarily by new conveyance of export water through or around the Delta coupled with large scale shallow water and tidal wetland habitat restoration. Both of these mechanisms will greatly alter the fate and transport of water, nutrients, contaminants and aquatic resources in the Delta. Absent SWRCB action on the WQCP – setting the goals and ground rules for

attaining protection of all beneficial uses of the Delta – evaluating the proposals in the BDCP will be difficult.

EPA is impressed with the scope and quality of material in the August 2009 Staff Report. EPA also believes the preparation, presentations, and reports that the Board received in helping to respond to the Delta Reform Act of 2009 and the final report by the Board to the legislature entitled "Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem**"** provide scientifically sound input for your review of the WQCP.

On March 27, 2012, EPA convened a technical workshop to discuss the modeling and scientific material that has flourished since the development of standards to protect the Estuarine Habitat beneficial use in the early 1990's. We will shortly provide the Board with a final report from that workshop. We also draw the Board's attention to the recent set of scientific studies and modeling of the low salinity zone, which came from intensive work by the Interagency Ecological Program (IEP) and others in 2011; published reports from this effort are expected by late 2012 although some results and insightful conclusions were presented at the IEP Annual Workshop on April 20, 2012

We have four broad comments for the Board to consider in undertaking this WQCP review:

**1. The WQCP must be based in current science and include effectiveness monitoring**. Major gaps in scientific understanding of the estuary remain, but much has been learned since the standards in the WQCP were first developed. 3-D Hydrodynamic models, species life-cycle modeling, and conceptual models of the ecosystem have progressed tremendously in the last few years. Such models allow much more integrated understanding of the estuary than ever before. We urge the Board to articulate explicit scientific rationales in the WQCP. Changes to the WQCP should include not only the basis for a particular change, but the monitoring appropriate to assess the impact of the standard, a performance measure of the protected use, and a numeric goal to evaluate the effectiveness of the standard. One example of an analytical framework linking each requirement to a measurable ecosystem response and how the ecosystem response indicates progress toward a Basin Plan goal is in the draft "Framework for a Unified Monitoring, Assessment and Reporting Program (UMARP) for the Bay-Delta 2010 Report" by Luoma et al. 2011. (http://www.waterboards.ca.gov/mywaterquality/monitoring_council/estuary_workgroup/docs/2011/umarp_report022111.pdf) The Delta Regional Monitoring Program would be an excellent forum to synthesize and publicize the information collected pursuant to the WQCP.

**2. The WQCP should contain standards that, to the greatest extent possible, address conditions or parameters that directly affect beneficial uses and are measureable in the field.** For example, salinity or temperature may directly affect the aquatic resource and are readily measurable. In some cases, a regulatory parameter such as the Net Delta Outflow Index (NDOI) may serve as a surrogate for more detailed analytical tools, but the linkage to measurable field parameters that relate to the protected beneficial use should be explicit and scientifically sound.

**3. The WQCP should protect aquatic species throughout the year.** Protection of beneficial uses should encompass the entire period for which the beneficial use is present in the delta. Resident species require protection year-round. Migratory species require protection at all times when either adults or young migrate through the Delta. Standards that protect the needs of resources at all times of sensitivity, not only when conditions are known to have been degraded, allow better planning and better response to unplanned events.

**4. The WQCP should evaluate and, where appropriate, adopt long-term standards that reflect the real-time natural hydrological variability of the Delta.** Some existing standards vary by the five water year-types. The current WQCP includes the X2 standard which varies by inflow on the eight major Central Valley rivers in the previous month. The latter approach more accurately reflects the high inter and intra- annual variability in California climate to which native species are adapted.

We appreciate the opportunity to provide these scoping comments for your periodic review of the WQCP. We are impressed with the quality of effort already put forward by the Board and Board staff in preparing for this review. We look forward to working with you as the urgent needs of protection for many beneficial uses of Delta waterways are addressed under State law and the Clean Water Act.

Sincerely,

*original signed by*

Karen Schwinn
Associate Director
EPA Region 9 Water Division