



**DELTA STEWARDSHIP COUNCIL**  
A California State Agency

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Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
P.O. Box 2000  
Sacramento, CA 95812-2000



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Dear Ms. Townsend:

**RE: COMMENTS ON THE SUBSTITUTE ENVIRONMENTAL DOCUMENT FOR POTENTIAL CHANGES TO THE WATER QUALITY CONTROL PLAN FOR THE BAY-DELTA: SAN JOAQUIN RIVER FLOWS AND SOUTHERN DELTA WATER QUALITY**

This letter provides Delta Stewardship Council (DSC) staff comments on the Substitute Environmental Document (SED) for proposed changes to the San Joaquin River flow and southern Delta water quality objectives and program of implementation for the San Francisco Bay Delta/Sacramento – San Joaquin Delta Estuary (Bay-Delta Plan).

We strongly support the State Water Resources Control Board's (State Water Board) initiative to revise flow and water quality objectives for the San Joaquin River and southern Delta and to do this in a timely manner. Much has been learned since the Board's last update of these standards in 2006. The Council recognizes that the revision of flow and water quality objectives for the Delta is both difficult and controversial, but the adoption and implementation of revised flow and water quality objectives for the Delta by the 2014 deadline, as recommended in the Delta Plan, and the implementation of an adaptive management program is essential to achievement of the coequal goals for protecting the Delta ecosystem and improving the reliability of the State's water supplies.

Using the best available science to guide Delta decision making is a principle underlying the Delta Reform Act and Delta Plan. With this in mind, and in light of the uncertainty and controversy surrounding establishment of flow objectives for the Lower San Joaquin River (LSJR), it is important that the State Water Board's analysis builds on and acknowledges the experiences and insights gained from existing flow regimes and the Vernalis Adaptive Management Plan. We applaud your work and stand ready to provide any assistance that you may require. We offer the following specific comments for your consideration:

**1. More Natural Functional Flows.**

One cornerstone of the Delta Plan is the establishment of more natural, functional flows to achieve the coequal goals. The Council recognizes that flows which more closely

*"Coequal goals" means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place."*

approximate the timing, frequency, duration, volume and rate of change of flow produced naturally by a region's climate are best for native aquatic communities and that returning to a more naturally variable hydrograph is a key component of ecosystem restoration (pages 139-141, Final Draft Delta Plan).

The State Water Board's proposal to base required flows on a specific percentage of unimpaired flow is consistent with this goal. The Board's approach represents a fundamental change to the Board's past approach to establishing flow and water quality objectives. However, the Board should consider modifying its recommendations based on the following:

- *Adequacy of the Board's proposed flows:* The Delta Independent Science Board, in its draft comments dated March 9, 2012, raises the concern that management of flows at 35% of unimpaired flow appear to be at the lower limit of potential improvement in flow conditions for salmon and flows of 25% of unimpaired flow appear to provide little improvement over current conditions. Fisheries agencies have also testified that the flows recommended are inadequate to fully restore the San Joaquin River's anadromous fish. In contrast, water stakeholders raise the concern that management of flows at the level of 35% or more will not provide environmental benefits, in part because stressors other than flow also limit these fishes' recovery. Given the importance of these flows to meet both environmental and water user needs, it is essential that the adaptive management plan include specific monitoring requirements that will help address this core question and provide a basis for future refinements to the proposed required flows. With these uncertainties and the confounding influence of other stressors on salmonid populations, performance measures should not be limited to recovery of salmon and steelhead populations, but should also address progress towards meeting the State Water Board's goals of ecosystem health and the Delta Plan's goal of protecting, enhancing, and restoring the Delta ecosystem while also providing a more reliable water supply.
- *Incorporate Natural Functional Flows:* The State Water Board should incorporate the concept of Natural Functional Flows into the Annual Adaptive Management Plan and the Long-term Adaptive Management Approach. As noted above, Natural Functional Flows allows consideration of factors beyond unimpaired flows, to include the functions that flows provide to the ecosystem in its current physical condition. These are not the same flows that supported valued ecosystem functions before Delta tributaries were altered by dams and levees and the Delta was transformed into its current landscape of islands, levees and constructed channels. While it is widely recognized that we cannot return the Delta and its watershed to its historical state, there are aspects and functions that can be simulated, such as timely and prolonged inundation of floodplains, interconnection of remaining wetland and riverine environments, and river temperature controls through timed reservoir releases.

- *Use of a shorter averaging period for determining required flows:* While consistent with past practice, the use of a 14-day averaging period for determining required flows, as recognized by the Delta Independent Science Board in its March 9, 2012 comments, masks the occurrence of peak natural flows and so will tend to make the flow regime less like a natural flow pattern. Flow measurement, real-time communication and control technologies have improved sufficiently for the Board to consider a shorter averaging period. The Board should require the implementation of the shortest averaging period possible in order to achieve a more naturally variable flow regime. Again, the adaptive management plan should incorporate monitoring of these actions to provide a basis for further refinement of the required water flows.
- *Address other species stressors as part of the Board's flow and water quality objectives.* The Delta Plan recognizes water flow as a "master variable" but it is not the only critical element to the restoration of the Delta ecosystem. In addition to flow, actions that address other factors such as pollutants, predation, invasive species, hatchery effects, and available habitat may improve outcomes for native species. The Board should identify and require or recommend additional actions that will address these stressors. In particular, we urge the State Water Board use all of its authorities, including development of Total Maximum Daily Loads (TMDL) for pollutants and invasive species. The Delta Plan includes recommendations regarding completion of TMDLs for pesticides and methylmercury (see WQ R8). The US Environmental Protection Agency, with the assistance of the Los Angeles Regional Water Quality Control Board, recently adopted the Ballona Wetlands TMDL that addressed invasive species. Such an action might be a promising complement to other agencies' actions to better manage introduced predatory fish that affect salmonids in the Delta and its tributaries. Finally, it is essential that the adaptive management plan incorporate monitoring of these actions to assess and provide a basis for future refinements to the required water flows.

## **2. Reduced Reliance on the Delta**

Another cornerstone of the Delta Plan is the state's policy to reduce reliance on the Delta in meeting California's future water supply needs. Each region that depends on water from the Delta watershed is required to improve its regional self-reliance throughout investment in water use efficiency and conservation and development of local and regional water supplies (pages 83-84, November 2012 Draft Delta Plan).

We recognize that the State Water Board's proposed flow regime proposal will result in a decrease in water available for diversion from the LSJR and its tributaries in certain years, and probably will result in a corresponding increase in reliance on groundwater resources. While the specific impacts on water supply and water use cannot be known until the proposed flow objectives are implemented through subsequent water rights proceedings, the draft SED identifies an array of consequences including potential reductions in acres of irrigated land and/or conversion of land to nonagricultural use.

As part of its evaluation of measures to mitigate the adverse environmental effects to farmlands and water supplies, the SED should thoroughly assess opportunities for improved water conservation and efficiency, as well as local and regional options for diversification and improved management of existing water supplies to reduce the competition of the water supplies needed for environmental restoration and to mitigate the impacts of the flow requirements on water users. Priority for state investments in improved regional supplies, conservation and water use efficiency should be given to water users within the LSJR to implement actions that may not currently be locally cost effective. The adaptive management program should incorporate monitoring of these actions to assess and provide a basis for future refinements to the required water flows.

3. **Adaptive Management Plans:**

The Delta Reform Act of 2009 requires the use of science-based, transparent, and formal adaptive management strategies for ongoing ecosystem restoration and water management decisions. The State Water Board's proposal includes an annual adaptive management plan and a long-term adaptive management plan as required by the Delta Reform Act. While we support the overall provisions in the Board's proposed plans, we have the following concerns:

- *Composition of the Coordinated Operations Group (COG).* Currently, the composition of the COG would be determined by the Executive Director of the State Water Board. We recommend that the Executive Director consult with the Delta Lead Scientist regarding the membership of this COG to ensure there is a strong scientific representation and perspective.
- *Decision making when there is no consensus among the COG.* The proposal for making decisions based on the consensus of the COG whenever possible is appropriate, but a process for making decisions in times when there is no consensus is essential. In some water years, it may be critical to make temporary or tributary specific changes in the flow objectives to accommodate critical water supply needs or species protection. These decisions must be made through a transparent and publically accountable process.
- *More Detailed Information Needed on the Proposed Long-Term Adaptive Management Plan.* This proposal is still in the formative stage, and there is little information available in the Board's proposal on how long-term adaptive management decisions will be made, what information will be monitored and how it will be evaluated. This is critical as the proposal suggests that the required flows may vary between 25 and 45 percent of the impaired flow, and it allows for changes in the in the base flow requirements as well. We recommend that you include consideration of other species stressors in any long-term adaptive management plan. Again, these decisions must be made through a transparent and publically accountable process.

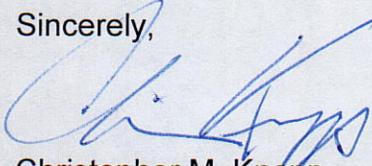
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As you move forward, we offer the services of our Delta Science Program to assist the State Board with the above issues. We also urge that the Board continue to seek input from the Independent Science Board.

In closing, we applaud the State Water Board's actions to update the flow and water quality objectives for the San Joaquin River and south Delta regions and to do this work in a timely manner. The Board's actions will greatly assist the state in achieving the coequal goals for protecting the Delta ecosystem and improving the reliability of the State's water supplies.

Thank you for consideration of our comments. Please feel free to contact me at (916) 445-4500 or by email [cknopp@deltacouncil.ca.gov](mailto:cknopp@deltacouncil.ca.gov) or Mark Bradley at (916) 445-0143 or [mbradley@deltacouncil.ca.gov](mailto:mbradley@deltacouncil.ca.gov) with additional comments.

Sincerely,



Christopher M. Knopp  
Executive Officer

cc: Chuck Bonham, Department of Fish and Game  
Phil Isenberg, Chair, DSC  
DSC Council Members