



February 6, 2017

Jeanine Townsend, Clerk of the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814-0100
Via email to: commentletters@waterboards.ca.gov

RE: 2016 Bay Delta Plan Amendment & Revised Substitute Environmental Document

Dear Board Members –

I am an ecologist, former Board Member of the Los Trancos County Water District, and avid outdoorsman. I value science-based public policies, thoughtful allocation of resources for both human and ecosystem needs, and the beauty of California's magnificent and varied watersheds.

My family and our neighbors spend considerable time together camping, fishing, boating, wildlife watching and appreciating the grandeur of nature in the iconic landscapes in our State, over which you have considerable and important influence.

I love salmon, both on my plate but even more so in our rivers. Hence I write to encourage you to **significantly improve freshwater inflows** into the Bay-Delta as part of your analysis of The Bay Delta Water Quality Control Plan and SED.

Your 2010 report "*Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem*" determined that; approximately 60% of unimpaired flow between February and June would be fully protective of fish and wildlife in the lower San Joaquin River and its three major tributaries. At least 50% of the natural flow from the Stanislaus, Tuolumne, Merced and lower San Joaquin Rivers should make it to the Bay-Delta.

However, less than 50% of the freshwater flow from the Central Valley reaches the Bay, and in some years less than 35%! This reduced inflow affects the salinity-mixing zone with significant ecosystem level effects from plankton to anadromous fish, from migratory birds to marine mammals. Low river flows impede fish passage, concentrate pollutants, raise water temperatures, decrease dissolved oxygen, and eliminate migratory cues for fish returning to spawn. The altered estuary chemistry encourages cyanobacterial and algal blooms that have additional ecosystem level impacts that could be significantly mitigated by increased freshwater flow.

As you know, the Bay-Delta is the West Coast's largest estuary, providing habitat for more than 500 species of wildlife. It is as a major stopover along the Pacific Flyway and a migration pathway for salmon, steelhead and sturgeon traveling to and from their home streams to the Pacific Ocean. Populations of spawning salmon have plummeted orders of magnitude because of human misappropriation of their freshwater resources. This mistake is now clearly understood and can be corrected by your public policy

analysis and decisions. The entire riparian, salmon-based ecosystem will significantly benefit from proper management of this keystone species. In addition to ecological benefits, the commercial salmon fishing industry will benefit from increased freshwater flows. In 2008-2009 \$255 million of annual revenue and 2,200 jobs were lost when the season was cancelled. What's good for the ecosystems is also good for the economy.

Speaking of the economy, please carefully re-consider the flawed economic analysis in the SFPUC's brief on the Bay Delta Water Quality Control Plan. Although this type of analysis is outside my professional expertise, I find the use of outdated data from 2009 to be highly problematic. In addition, even the revised 2014 figures are over-inflated when compared to actual economic performance at every water rationing level evaluated. You have a responsibility to base your decisions on real world economic performance and not on inaccurate economic models.

It is also abundantly clear the California can meaningfully and permanently reduce both domestic and agricultural water demand. The last two years clearly demonstrate that Californians have responded to the drought and reduced their domestic water demand. Coupled with broad-based support for improved recreational opportunities and ecosystem function for the Bay Delta, your constituents vote for increased fresh water flows.

Agriculture accounts for 80% of water use in California. Through better management of snowmelt, water efficient irrigation technologies and practices, and replacing lower-value, water-intensive crops with higher-value, water-efficient crops, we have the ability, and the imperative to grow more food with less water. By increasing freshwater flow you will both improve the Bay Delta ecosystem, and spur California's entrepreneurs to continue to innovate in water efficient agricultural practices. This will benefit farmers, consumers, ecosystems and the economy.

You have the authority and opportunity to determine which beneficial uses of our precious water resources have priority. Please use the best available science to increase instream freshwater flows knowing that it will have broad-based ecosystem impacts. Also please consider that food grown for Californians is a beneficial use of our water, while agricultural exports typically benefit only a small number of corporate farmers.

The health and vitality of the Bay Delta is in your hands. Ecosystems and our economy can thrive when public policy is driven by facts and careful management of scarce resources. I look forward to your thoughtful analysis of this complex and critical issue.

Respectfully yours,

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