



Jeanine Townsend, Clerk of the Board December 21, 2016
State Water Resources Control Board

Hello my name is Tom Schwertscharf and I am writing in favor of increasing river flows to support aquatic communities. My background is in freshwater chemistry and biology. I have past certifications with the State of California for Water Treatment Operator Grade 3 and Registered Environmental Health Specialist. I was also certified as a Water Quality Analyst Grade 3 by the American Water Works Association. I currently volunteer at a salmon habitat restoration project in Marin County.

Reduction in stream flows have resulted in numerous water quality problems for the Bay-Delta ecosystem and a collapse of historical salmon runs. Decreased flows have concentrated pollutants increasing the toxic effects of contaminants including pesticides, herbicides, heavy metals, pharmaceuticals and manure. Salinities and conductivity have increased and are moving upstream further into the delta. Water ways are choked by aquatic vegetation and we are having more situations where there are water closures because of toxic algae and Cyanobacteria blooms. Reduced flows have resulted in increased temperatures and lowered oxygen concentrations? The life history of many aquatic organisms have developed according to increased flows in the winter and spring. The development of the State of California's Bio-assessment Program allows scientists to document system disturbances and make recommendations regarding the timing and duration of water releases. Increasing water flows will allow for flushing out pollutants and insuring that water ways remain healthy and productive.

I am concerned that the importance of San Francisco Bay to the region is often overlooked when considering water flows to and through the delta and into the bay. The idea that freshwater

should not flow to the Bay is without merit as the Bay is home to many important commercial and endangered species. Tourism, recreational uses such as sailing, fishing, and sight seeing, and commercial shipping through the San Francisco and Oakland shipping terminals depend on a healthy bay.

I am confident that we can meet coequal goals of ecosystem restoration and the support of agriculture and other industries if we work together and reduce water usage in both rural and urban areas. The Bay Area has shown it can reduce it's consumption through conservation efforts by up to 30% making water resources available for other purposes. I have personally reduced my water usage to 35 gallons per day without seeing any reduction in quality of life.

I urge the board to increase water flows to begin to reverse the damage caused by chronic low flows.

Sincerely, Thomas Schwertscharf