

After decades of degradation due to inadequate freshwater inflows, the State is poised to provide relief to the San Francisco Bay-Delta. The State Water Resources Control Board has proposed revisions to the Bay Delta Water Quality Control Plan aimed at updating minimum flows in rivers that feed the Bay-Delta estuary. Phase 1 of the Plan aims to restore the lower San Joaquin River and its three major tributaries in order to protect fish and wildlife and control salt in the southern Delta.

The new Plan calls for 40% of unimpaired flow (what would flow down rivers in the absence of dams and diversions) between February and June each year in the Stanislaus, Tuolumne and Merced Rivers. Currently, the three tributaries respectively see about 40%, 21% and 25% of their unimpaired flow reach the San Joaquin River. Flows could range from 30-50% depending on how successful non-flow measures (such as habitat restoration) are at reaching established goals and objectives.

Higher flows will improve the ability of salmon and other fish to migrate to and from their natal streams to the ocean, reduce the concentration of river pollutants, and lower water temperatures. Flows also should be adequate to inundate floodplains, which serve as critical rearing habitat for juvenile fish.

Historically, populations of spawning salmon exceeded 400,000 fish in these rivers, but in many recent years that figure has plummeted to just a few thousand. California's salmon population was so low in 2008 and 2009 that the commercial fishing season had to be cancelled, resulting in the loss of more than 2,200 jobs and \$255 million in annual revenue. Meanwhile, Central Valley steelhead trout are listed as a threatened species.

A [flow criteria report](#) released by the State Water Board in 2010 determined that approximately 60% of unimpaired flow between February and June would be protective of fish and wildlife in the San Joaquin Basin. In 2013, the California Department of Fish and Wildlife also determined that 50-60% of unimpaired flow should remain instream to protect and restore the salmon-based ecosystem. The State Water Board's 40% proposal is a compromise, but even this modest plan has met stiff resistance from the San Francisco Public Utilities Commission (SFPUC) and Modesto and Turlock Irrigation Districts, which all divert water from the Tuolumne.

The Bay-Delta forms the largest estuary on the West Coast of the Americas, providing habitat for more than 500 species of wildlife. It serves as a major stopover on the Pacific Flyway and as a migration pathway for salmon, steelhead and sturgeon. Once a Garden of Eden, the estuary is now in desperate need of help. The Bay Delta Plan is a once-in-a-generation opportunity to correct decades of mismanagement.

Through better management of snowmelt and groundwater, implementation of water efficient technologies and irrigation practices, and replacing lower-value, water-intensive crops with higher-value, water-efficient crops, we could grow more food with less water.

A good example of successful water conservation is right here in the Bay Area. Between 2006 and 2016, the 2.7 million people who depend on the Tuolumne River via the Hetch Hetchy Water System decreased their water use by 30%. By using our precious water more efficiently, we can continue to enjoy a thriving economy while restoring the rivers and waterways that make California such a special place to live and visit.