

Moon: Changes needed to rules governing delta smelt
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This winter, on certain days, it would take only two small fish known as delta smelt to show up at California's two largest water projects to trigger pumping restrictions causing the loss of hundreds of millions of gallons of water a day. If two more smelt appear the next day, the pumps are cut more, and so on. Since Jan. 1, the State Water Project has lost nearly 370,000 acre-feet of water, enough to serve the residential needs of San Jose for nearly three years."

This is how the federal Endangered Species Act has been implemented on a day-by-day, smelt-by-smelt basis for the water system serving 25 million Californians and the farms that grow half the nation's fruits and vegetables. The "two-smelt-and-you're-out" rule is among five layers of water-supply restrictions under the federal and state endangered species acts. The combined impact is shortage or near-shortage conditions for many regions of the state, regardless of rainfall.

The State Water Contractors strongly support long-term solutions to restoring Northern California's Sacramento-San Joaquin Delta and rebuilding a reliable water system within the Endangered Species Act. But these pumping restrictions are not rebounding fish populations. The emerging challenge is to address legitimate questions about these short-term rules while moving forward with the Bay Delta Conservation Plan, an effort designed to put the delta on a more-sustainable path.

It is widely acknowledged that the delta's recent ecological freefall has been caused by many stresses, not just water diversions. However, enforcement under the Endangered Species Act has singularly focused on the water projects.

One alternative to the ineffective "two-smelt-and-you're-out" approach is to focus on managing pumping based on the smelt's habitat. This 2-inch fish appears to prefer turbid, cloudy water, which provides refuge from predatory fish. Turbidity is monitored hourly at stations throughout the delta. By carefully timing pumping operations with the movement of turbid waters, it is possible to move water supplies when the turbid waters preferred by smelt are at a safe distance.

Such an approach reflects a more comprehensive understanding of the species' habitat needs and could be a more workable solution under the Endangered Species Act. It stands in contrast to the outdated and narrow approach currently at play, in which water projects are being turned on and off based on the travel behavior of one or two fish whose movement may not even be related to where the majority of the fish population is swimming.

Currently, the two water projects have entrainment facilities staffed around the clock that capture fish before reaching the pumps. For 30 minutes out of every two hours, workers at the projects count every entrained fish. The process is decades old, yet recently wildlife agencies began to regulate the projects based singularly on the fish counts near the pumps. The official purpose behind the new rules, which the agencies can shift day by day, is to limit the direct detection of delta smelt to no more than 30 fish at the facilities for all of 2010.

Water districts are challenging the science behind these rules, including the fact that the fish-count triggers have not historically borne a relationship to the actual abundance of the population under most scenarios. But court action is not expected until after the window to capture additional water supplies this year has come and gone.

In the meantime, when a water-delivery system can be severely compromised by two fish, it is a sign that something is seriously wrong. The need for wildlife agencies and water districts to work together toward lasting and genuinely effective solutions has never been greater.

Laura King Moon is assistant general manager of the State Water Contractors, an association of 27 public agencies, including the Santa Clara Valley Water District, that purchase water from the California State Water Project. She wrote this article for this newspaper.