

California mulls new plan to save imperiled salmon

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Preparing for another season of drought, California officials plan to hold back more water at Shasta Lake next year in an effort to save an increasingly endangered fish: the winter-run Chinook salmon.

Their proposal, unveiled Tuesday by the State Water Resources Control Board, stirred anger among downstream farmers, who could face another year of diminished water supplies. Meanwhile, independent fish biologists were skeptical the plan would work any better than previous efforts.

State officials stressed the plan could change dramatically if El Niño brings substantial drought relief.

The plan revolves around an effort to keep water temperatures in the Sacramento River at 56 degrees or lower, the threshold for keeping juvenile salmon alive. An estimated 95 percent of juvenile winter-run Chinook died in 2014 because temperatures got too warm. Earlier this year, federal and state officials agreed to keep more water in storage at Shasta, with the idea that the water would be cold enough to sustain the fish once it finally got released into the river.

The plan appears to have failed. A contributing factor: The U.S. Bureau of Reclamation, which operates Shasta, realized in late spring that its temperature gauges were faulty and the river was running warmer than predicted. By the time officials throttled back on the releases from Shasta, it was too late, and temperatures were occasionally creeping as high as 58 degrees.

In October, officials with the National Marine Fisheries Service said preliminary data showed even more of the juvenile [salmon were killed this year](#), compared with 2014's dismal results.

Getting it right in 2016 will be crucial. Chinook salmon have a three-year spawning cycle and "may face extinction" if they suffer a third year of high mortality rates, according to a water board staff report. The winter-run Chinook are listed as endangered under the federal Endangered Species Act.

The plan calls for holding back more water next year than this year. An additional 200,000 acre-feet would be kept at Shasta through spring to keep the water cold when it's released. Officials said 1.6 million acre-feet would remain in storage through the end of October, compared with 1.4 million acre-feet this year.

"This year's (plan) didn't protect the salmon, so we need to hold more (water) back," said Tim Moran, a spokesman for the water board.

The board is expected to vote on the new plan next Tuesday. Moran said the plan could change "if there is a monster El Niño" and enough water in the system to satisfy farmers' needs while protecting the fish.

Holding extra water at Shasta this year had consequences throughout California's stressed water network. Farmers made do with smaller allocations during crucial summer months, contributing to the fallowing of more than 500,000 acres of land.

In addition, the Bureau of Reclamation drained Folsom Lake more quickly than usual to keep enough river water flowing to tamp down the volume of seawater rushing into the Sacramento-San Joaquin Delta. Folsom fell to its [lowest level ever](#) this fall, creating anxiety among area water agencies. The lake is the primary water source for 500,000 residents in Folsom, Granite Bay, Roseville, Fair Oaks, Orangevale and Citrus Heights.

State officials said the 2016 temperature plan would limit the outflows from Folsom, leaving the lake no lower than 200,000 acre-feet by late October. It fell to 148,000 acre-feet this October.

Environmentalists aren't convinced the new plan will save the Chinook. By historical standards, 1.6 million acre-feet in Shasta is not a lot of water and might not be enough to create the cooling effect, said Jon Rosenfield, a conservation biologist at the nonprofit Bay Institute in San Francisco. "This plan is not ambitious relative to what's tried and failed in the past," he said.

Farm groups, meanwhile, are bracing for another tough season in 2016.

"There's this regulatory side that continues to chip away at water supplies that are used to grow food," said Mike Wade of the California Farm Water Coalition.

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