

Iron Gate Hatchery won't release fish into Klamath River

By [ALEX SCHWARTZ H&N Staff Reporter / Report for America](#) Jul 10, 2021

This summer, for the first time in its 55-year history, Iron Gate Fish Hatchery will not release young salmon into the Klamath River.

Hatchery management cited the river's exceptionally poor water quality and heightened fish disease risk as reasons for keeping hatchery smolts in captivity until conditions improve in the fall.

Over the past two weeks, the California Department of Fish and Wildlife has trucked more than a million smolts to two other hatcheries in the Klamath watershed, where they will continue to be looked after through the remainder of the summer. Once the Klamath River cools and the threat of salmon disease wanes, CDFW will return them to Iron Gate and release them.

The decision comes on the heels of a staggering juvenile [fish kill](#) on the mainstem Klamath River that began in May. At one point, as many as 97% of sample salmon captured by fishery biologists from the Yurok Tribe were infected with the parasite *C. shasta*, and many of them were already dead.

The hatchery normally releases its smolts in the early summer, which in many years has coincided almost perfectly with the parasite outbreak. The fish swim right through the infectious zone below Iron Gate Dam, picking up *C. shasta* spores released by massive colonies of annelid worms that carpet the riverbed. Salmon disease specialists have long bemoaned the practice, which can actually exacerbate the outbreak by providing the parasite with more fish hosts to infect.

This year, however, the hatchery has responded to the river's severe drought conditions by waiting to release the fish.

"It really was the best idea to just not release the hatchery fish into the river system, because it would've been almost futile," said Mark Clifford, an environmental scientist with CDFW.

Clifford said a salmon migration model run by the U.S. Fish and Wildlife Service, which takes into account the river's temperature and the number of *C. shasta* spores present per liter of water, predicted high mortality for the hatchery fish if they were released according to normal protocol.

"They're estimating the survivability of some fish, and it wasn't good," he said.

But because the smolts will only grow as the summer progresses, Iron Gate Hatchery will soon run out of space to comfortably fit the more than 2 million fish that had been spawned last winter. Water quality would decrease, spelling trouble for fish health. To fix that, CDFW is sending a little over half those fish to summer camp.

On a surprisingly smoke-free morning this Wednesday, a truck pulled up next to one of the hatchery's ponds. A cloud of tiny, gray salmon swirled around in the water as hatchery staff turned on a pump to draw them into the truck's insulated tank. The translucent pipe showed outlines of the assumedly confused baby salmon as they rose into a funnel, which dropped them into a separate pipe feeding the tank. After more than 20,000 fish had amassed on the truck, the pump stopped.

Then the fish were taken on a quick road trip along the northern shore of Iron Gate Reservoir, where no salmon have swum for more than half a century.

The truck backed up to a pond at the rustic Fall Creek Hatchery, originally built in 1919. Drawing from a consistently cool, oxygenated tributary to the Klamath, the hatchery was originally built to mitigate the impacts of the Copco No. 1 dam and ceased to be useful in 1965, when Iron Gate Dam blocked salmon from reaching it. Between the 1970s and the early 2000s, CDFW raised additional fish there for fishery enhancement.

Fall Creek Hatchery has awoken from an 18-year slumber to host what's expected to be the first generation of salmon that will explore this area after four hydroelectric dams on the Klamath River are removed in 2023.

"It has an excellent water supply, and that's why we're utilizing it," Clifford said. "It's very dependable."

When a consortium of scientists, tribes and federal agencies met to decide what to do about this year's hatchery fish, Clifford said an idea was floated to truck the smolts all the way down to the Lower Klamath River past the infectious zone, essentially completing the migration to the ocean for them. That's been done on the Sacramento River during drought years like this one.

But Clifford said there was a concern that the returning adults would then stray into the Klamath's tributaries, like the Salmon and Shasta Rivers, which are known for their genetically distinct populations, and cause unwanted genetic exchange during spawning. Thus, they'd still need to enter the river at Iron Gate to ensure they'd return there to spawn.

"The fish home in on the chemical signature of the water," Clifford said.

All in all, a million smolts will spend the summer at Iron Gate Hatchery, while 170,000 are being transferred to Fall Creek. CDFW trucked another million fish to Trinity Hatchery last week — a winding, three-hour drive through record heat which went considerably well.

"We didn't lose hardly any," Clifford said.

As the summer heat begins to subside, the travelers will return to Iron Gate Hatchery to spend a few weeks getting used to its water before the raceway gates will open and they begin their journeys to the ocean. Clifford said they'll have the extra advantage of being a little older and hardier, allowing them to better handle stressors the river throws at them.

"Maybe we get some good storms in October, but we want basically more flow, colder temperatures, more oxygen, less infective stages of the pathogen," Clifford said.

News of the hatchery operations change was music to *C. shasta* expert Sascha Hallett's ears. The Oregon State University associate professor said she's been encouraged in recent years by the hatchery releasing fish in conjunction with a flow event, and that delaying the release until the fall will likely give the smolts a better chance of survival.

"Year after year I'd shake my head going, 'Why are they letting those fish out now? It's hot, and there's parasite. This doesn't make any sense,'" she said. "This reflects the increased communication that I've witnessed between all the different groups, and the hatcheries not just following the formula as such. They are really incorporating real-time information about the basin and modifying operations accordingly."

Clifford agreed that the hatchery is trying to be flexible to river conditions, despite the more complicated logistics required to do so. He said the operations will likely be more in tune with what's happening on the ground (or in the water) in the future.

"We adapt to meet the conditions," he said. "It could be a flood, it could be a drought, it could be a fire."

Hallett said she would've expected more than half the hatchery smolts to die in the river had they been released in the summer, based on water quality conditions and the scale of this year's *C. shasta* outbreak. Now they'll have more of a chance of surviving to potentially repopulate the reservoir reaches after dam removal.

"This is a positive action, but it just highlights that the conditions in the Klamath this year are so severe," she said.