Water crisis reaches boiling point on Oregon-California line

2 July 2021, by Gillian Flaccus

Jamie Holt, lead fisheries technician for the Yurok Tribe, maneuvers a boat near a fish trap in the lower Klamath River on Tuesday, June 8, 2021, in Weitchpec, Calif. A historic drought and low water levels are threatening the existence of fish species along the 257-mile long river. “When I first started this job 23 years ago, extinction was never a part of the conversation,” she said of the salmon. “If we have another year like we’re seeing now, extinction is what we’re talking about.” Credit: AP Photo/Nathan Howard

Ben DuVal knelt in a barren field near the California-Oregon state line and scooped up a handful of parched soil as dust devils whirled around him and birds flitted between empty irrigation pipes.

DuVal’s family has farmed the land for three generations, and this summer, for the first time ever, he and hundreds of others who rely on irrigation from a depleted, federally managed lake aren’t getting any water from it at all.

As farmland goes fallow, Native American tribes along the 257-mile (407-kilometer) long river that flows from the lake to the Pacific Ocean watch helplessly as fish that are inextricable from their diet and culture die in droves or fail to spawn in shallow water.

Just a few weeks into summer, a historic drought and its on-the-ground consequences are tearing communities apart in this diverse basin filled with flat vistas of sprawling alfalfa and potato fields, teeming wetlands and steep canyons of old-growth forests.

Competition over the water from the river has always been intense. But this summer there is simply not enough, and the farmers, tribes and wildlife refuges that have long competed for every drop now face a bleak and uncertain future together.

"Everybody depends on the water in the Klamath River for their livelihood. That's the blood that ties us all together. ... They want to have the opportunity to teach their kids to fish for salmon just like I want to have the opportunity to teach my kids how to farm," DuVal said of the downriver Yurok and Karuk tribes. "Nobody's coming out ahead this year. Nobody's winning."

Ben DuVal stands in a field of triticale, one of the few crops his family was able to plant this year due to the water shortage, on Wednesday, June 9, 2021, in...
Tulelake, Calif. DuVal's family has farmed the land near the California-Oregon border for three generations, and this summer for the first time ever, he and hundreds of others who rely on irrigation from a depleted, federally managed lake aren't getting any water from it at all. Competition over the water in the Klamath Basin has always been intense, but this summer, because of a historic drought there is not enough water for the needs of farmers, Native American tribes and wildlife refuges. Credit: AP Photo/Nathan Howard

With the decadeslong conflict over water rights reaching a boiling point, those living the nightmare worry the Klamath Basin's unprecedented drought is a harbinger as global warming accelerates.

"For me, for my family, we see this as a direct result of climate change," said Frankie Myers, vice chairman of the Yurok Tribe, which is monitoring a massive fish kill where the river enters the ocean. "The system is crashing, not just for Yurok people ... but for people up and down the Klamath Basin, and it's heartbreaking."

ROOTS OF A CRISIS

Twenty years ago, when water feeding the farms was drastically reduced amid another drought, the crisis became a national rallying cry for the political right, and some protesters breached a fence and opened the main irrigation canal in violation of federal orders.

But today, as reality sinks in, many irrigators reject the presence of anti-government activists who have once again set up camp. In the aftermath of the Jan. 6 insurrection at the U.S. Capitol, irrigators who are at risk of losing their farms and in need of federal assistance fear any ties to far-right activism could taint their image.

Some farmers are getting some groundwater from wells, blunting their losses, and a small number who get flows from another river will have severely reduced water for just part of the summer. Everyone is sharing what water they have.

"It's going to be people on the ground, working together, that's going to solve this issue," said DuVal, president of the Klamath Water Users Association. "What can we live with, what can those parties live with, to avoid these train wrecks that seem to be happening all too frequently?"

The Klamath River winds runs along Highway 96 on Monday, June 7, 2021, near Happy Camp, Calif. Competition over the water from the river has always been intense, but this summer there is not enough for all users. Native American tribes along the 257-mile-long river are watching fish species they have fished for generations hover closer to extinction as water flow are reduced. Credit: AP Photo/Nathan Howard

A tractor tears dried dirt on land that was unplanted this year due to the water shortage on Wednesday, June 9, 2021, in Tulelake, Calif. This summer for the first time ever, hundreds of farmers along the California-Oregon border who rely on irrigation from a depleted, federally
managed lake aren't getting any water from it at all. Competition over the water in the Klamath Basin has always been intense, but this summer, because of a historic drought there is not enough water for the needs of farmers, Native American tribes and wildlife refuges.

Credit: AP Photo/Nathan Howard

Meanwhile, toxic algae is blooming in the basin's main lake—vital habitat for endangered suckerfish—a month earlier than normal, and two national wildlife refuges that are a linchpin for migratory birds on the Pacific Flyway are drying out. Environmentalists and farmers are using pumps to combine water from two stagnant wetlands into one deeper to prevent another outbreak of avian botulism like the one that killed 50,000 ducks last summer.

The activity has exposed acres of arid, cracked landscape that likely hasn't been above water for thousands of years.

"There's water allocated that doesn't even exist. This is all unprecedented. Where do you go from here? When do you start having the larger conversation of complete unsustainability?" said Jamie Holt, lead fisheries technician for the Yurok Tribe, who counts dead juvenile chinook salmon every day on the lower Klamath River.

"When I first started this job 23 years ago, extinction was never a part of the conversation," she said of the salmon. "If we have another year like we're seeing now, extinction is what we're talking about."

The extreme drought has exacerbated a water conflict that traces its roots back more than a century.

Beginning in 1906, the federal government reengineered a complex system of lakes, wetlands and rivers in the 10 million-acre (4 million-hectare) Klamath River Basin to create fertile farmland. It built dikes and dams to block and divert rivers, redirecting water away from a natural lake spanning the California-Oregon border.

Evaporation then reduced the lake to one-quarter of its former size and created thousands of arable acres in an area that had been underwater for millennia.

In 1918, the U.S. began granting homesteads on the dried-up parts of Tule Lake. Preference was given to World War I and World War II veterans, and the Klamath Reclamation Project quickly became an agricultural powerhouse. Today, farmers there grow everything from mint to alfalfa to potatoes that go to In 'N Out Burger, Frito-Lay and Kettle Foods.
A field book used by Yurok Tribe biologists is seen on the shore of the lower Klamath River while researchers monitor nearby chinook salmon populations on Tuesday, June 8, 2021, in Weitchpec, Calif. Competition over the water from the river has always been intense, but this summer there is not enough for all users. Native American tribes along the 257-mile-long river are watching fish species hover closer to extinction as water flows are reduced. Credit: AP Photo/Nathan Howard

Water draining off the fields flowed into national wildlife refuges that continue to provide respite each year for tens of thousands of birds. Within the altered ecosystem, the refuges comprise a picturesque wetland oasis nicknamed the Everglades of the West that teems with white pelicans, grebes, herons, bald eagles, blackbirds and terns.

Last year, amid a growing drought, the refuges got little water from the irrigation project. This summer, they will get none.

SPEAKING FOR THE FISH

While in better water years, the project provided some conservation for birds, it did not do the same for fish—or for the tribes that live along the river.

The farmers draw their water from the 96-square-mile (248-square-kilometer) Upper Klamath Lake, which is also home to suckerfish. The fish are central to the Klamath Tribes’ culture and creation stories and were for millennia a critical food source in a harsh landscape.

In 1988, two years after the tribe regained federal recognition, the U.S. Fish and Wildlife Service listed two species of suckerfish that spawn in the lake and its tributaries as endangered. The federal government must keep the extremely shallow lake at a minimum depth for spawning in the spring and to keep the fish alive in the fall when toxic algae blooms suck out oxygen.

This year, amid exceptional drought, there was not enough water to ensure those levels and supply irrigators. Even with the irrigation shutoff, the lake's water has fallen below the mandated levels—so low that some suckerfish were unable to reproduce, said Alex Gonyaw, senior fish biologist for the Klamath Tribes.

The youngest suckerfish in the lake are now nearly 30 years old, and the tribe’s projections show both species could disappear within the next few decades. It says even when the fish can spawn, the babies die because of low water levels and a lack of oxygen. The tribe is now raising them in captivity.
and has committed to "speak for the fish" amid the profound water shortage.

Jamie Holt, lead fisheries technician for the Yurok Tribe, counts dead chinook salmon pulled from a trap in the lower Klamath River on Tuesday, June 8, 2021, in Weitchpec, Calif. A historic drought and low water levels are threatening the existence of fish species along the 257-mile-long river. "When I first started this job 23 years ago, extinction was never a part of the conversation," she said of the salmon. "If we have another year like we're seeing now, extinction is what we're talking about."

Credit: AP Photo/Nathan Howard

"I don't think any of our leaders, when they signed the treaties, thought that we'd wind up in a place like this. We thought we'd have the fish forever," said Don Gentry, Klamath Tribes chairman. "Agriculture should be based on what's sustainable. There's too many people after too little water."

But with the Klamath Tribes enforcing their senior water rights to help suckerfish, there is no extra water for downriver salmon—and now tribes on different parts of the river find themselves jockeying for the precious resource.

The Karuk Tribe last month declared a state of emergency, citing climate change and the worst hydrologic conditions in the Klamath River Basin in modern history. Karuk tribal citizen Aaron Troy Hockaday Sr. used to fish for salmon at a local waterfall with a traditional dip net. But he says he hasn't caught a fish in the river since the mid-1990s.

Gilbert Myers takes a water temperature reading at a chinook salmon trap in the lower Klamath River on Tuesday, June 8, 2021, in Weitchpec, Calif. Native American tribes along the 257-mile-long river are watching helplessly as fish species hover closer to extinction because of lower water levels caused by historic drought. Credit: AP Photo/Nathan Howard

"I got two grandsons that are 3 and 1 years old. I've got a baby grandson coming this fall. I'm a fourth-generation fisherman, but if we don't save that one fish going up the river today, I won't be able to teach them anything about our fishing," he said. "How can I teach them how to be fishermen if there's no fish?"

'IT'S LIKE A BIG, DARK CLOUD'

The downstream tribes’ problems are compounded by hydroelectric dams, separate from the irrigation project, that block the path of migrating salmon.

In most years, the tribes 200 miles (320 kilometers) to the southwest of the farmers, where the river reaches the Pacific, ask the Bureau of Reclamation to release pulses of extra water from Upper Klamath Lake. The extra flows mitigate outbreaks of a parasitic disease that proliferates when the river is low.
Gilbert Myers, left, and Jamie Holt, lead fisheries technician for the Yurok Tribe, right, count dead chinook salmon pulled from a trap in the lower Klamath River on Tuesday, June 8, 2021, in Weitchpec, Calif. A historic drought and low water levels are threatening the existence of fish species along the 257-mile long river. "When I first started this job 23 years ago, extinction was never a part of the conversation," Holt said of the salmon. "If we have another year like we're seeing now, extinction is what we're talking about." Credit: AP Photo/Nathan Howard

This year, the federal agency refused those requests, citing the drought.

Now, the parasite is killing thousands of juvenile salmon in the lower Klamath River, where the Karuk and Yurok tribes have coexisted with them for millennia. Last month, tribal fish biologists determined 97% of juvenile spring chinook on a critical stretch of the river were infected; recently, 63% of fish caught in research traps near the river's mouth have been dead.

The die-off is devastating for people who believe they were created to safeguard the Klamath River's salmon and who are taught that if the salmon disappear, their tribe is not far behind.

"Everybody's been promised something that just does not exist anymore," said Holt, the Yurok fisheries expert. "We are so engrained within our environment that we do see these changes, and these changes make us change our way of life. Most people in the world don't get to see that direct correlation—climate change means less fish, less food."

Hundreds of miles to the northeast, near the river's source, some of the farmers who are seeing their lives upended by the same drought now say a guarantee of less water—but some water—each year would be better than the parched fields they have now. And there is concern that any problems in the river basin—even ones caused by a drought beyond their control—are blamed on a way of life they also inherited.

"I know turning off the project is easy," said Tricia Hill, a fourth-generation farmer who returned to take over the family farm after working as an environmental lawyer.

"But sometimes the story that gets told ... doesn't represent how progressive we are here and how we do want to make things better for all species. This single-species management is not working for..."
the fish—and it’s destroying our community and hurting our wildlife.”

Aaron Troy Hockaday Sr., a Karuk tribal member, holds a handmade mule deer drum decorated with fishing symbolism on Monday, June 7, 2021, in Happy Camp, Calif. Salmon have been fished from the Klamath River by members of the Karuk Tribe for generations, but recently the tribe has declared a state of emergency. They say climate change and the worst hydrologic conditions in the Klamath Basin in modern history have led to the decline of the salmon population. Credit: AP Photo/Nathan Howard

A dead chinook salmon is documented at a salmon trap on the lower Klamath River on Tuesday, June 8, 2021, in Weitchpec, Calif. A historic drought and low water levels on the Klamath River are threatening the existence of fish species along the 257-mile-long river. Credit: AP Photo/Nathan Howard

The Klamath Tribes Fish and Wildlife facility, where the health of native suckerfish is tracked, is seen here on Thursday, June 10, 2021, in Chiloquin, Ore. Toxic algae blooms in the Upper Klamath Lake threatens the habitat for the endangered species. Credit: AP Photo/Nathan Howard
Dead chinook salmon are lined up before being documented at a salmon trap on the lower Klamath River on Tuesday, June 8, 2021, in Weitchpec, Calif. A historic drought and low water levels on the Klamath River are threatening the existence of fish species along river. Credit: AP Photo/Nathan Howard

A fish trap used to catch and document the health of salmon floats in the lower Klamath River on Tuesday, June 8, 2021, in Weitchpec, Calif. Native American tribes along the 257-mile-long river are watching helplessly as fish species hover closer to extinction because of lower water levels caused by the historic drought. Credit: AP Photo/Nathan Howard

A tent erected by a small group of farmers protesting the lack of water allocation to irrigators sits next to the head gates of the Klamath River on Wednesday, June 9, 2021, in Klamath Falls, Ore. The group has threatened to forcibly open the head gates of the Upper Klamath Lake if the U.S. Bureau of Reclamation does not release water for irrigators. Credit: AP Photo/Nathan Howard
Toxic algae are seen in a sample of Upper Klamath Lake water on Thursday, June 10, 2021, near Klamath Falls, Ore. Toxic algae blooming in the lake threatens the vital habitat for the endangered suckerfish. Credit: AP Photo/Nathan Howard

Paul Simmons, executive director of the Klamath Water Users Association, talks about the history of the Klamath Water Basin project on Wednesday, June 9, 2021, in Klamath Falls, Ore. The nonprofit private corporation represents the water needs for agricultural members who draw water from the Klamath Reclamation Project along both sides of the California-Oregon border. Credit: AP Photo/Nathan Howard

Alex Gonyaw, senior fish biologist for the Klamath Tribes, examines juvenile suckerfish at the tribe's fish and wildlife facility on Thursday, June 10, 2021, in Chiloquin, Ore. Toxic algae blooms in the Upper Klamath Lake threaten the habitat for the endangered species. Credit: AP Photo/Nathan Howard

Danny Nielsen sits around a gas fire on property he purchased next to the head gates of the Klamath River on Wednesday, June 9, 2021, in Klamath Falls, Ore. Nielsen, who owns 43 acres in the Klamath Project, is among those who have threatened to forcibly open the head gates of the Upper Klamath Lake if the U.S. Bureau of Reclamation does not release water for downstream users. Credit: AP Photo/Nathan Howard
Danny Nielsen walks through a tent on property he purchased next to the head gates of the Klamath River, on Wednesday, June 9, 2021, in Klamath Falls, Ore. Nielsen, who owns 43 acres in the Klamath Project, is among those who have threatened to forcibly open the head gates of the Upper Klamath Lake if the U.S. Bureau of Reclamation does not release water for downstream users. Credit: AP Photo/Nathan Howard

Erika DuVal moves an irrigation pipe through a field of triticale, one of the few crops her family was able to plant this year due to the water shortage, on Wednesday, June 9, 2021, in Tulelake, Calif. The DuVal family has farmed the land near the California-Oregon border for three generations, and this summer for the first time ever, they and hundreds of others who rely on irrigation from a depleted, federally managed lake aren’t getting any water from it at all. Credit: AP Photo/Nathan Howard

A small stream runs through the dried, cracked earth of a former wetland near Tulelake, Calif., Wednesday June 9, 2021. The area was drained in an effort to prevent an outbreak of avian botulism, which occurs when water levels become too low. Credit: AP Photo/Nathan Howard

Erika DuVal drives a swather through a field of triticale, one of the few crops her family was able to plant this year due to the water shortage, on Wednesday, June 9, 2021, in Tulelake, Calif. The DuVal family has farmed the land near the California-Oregon border for three generations, and this summer for the first time ever, they and hundreds of others who rely on irrigation from a depleted, federally managed lake aren’t getting any water from it at all. Credit: AP Photo/Nathan Howard
The DuVal family eats dinner together in their farmhouse on Wednesday, June 9, 2021, in Tulelake, Calif. Ben DuVal said he worries the continued water shortage will prevent him from passing on their farming way of life to his kids. DuVal's family has farmed the land near the California-Oregon border for three generations, and this summer for the first time ever, he and hundreds of others who rely on irrigation from a depleted, federally managed lake aren't getting any water from it at all. Credit: AP Photo/Nathan Howard

Ben DuVal walks past a dry irrigation pipe in a field he had rented for crops this year but was unable to plant due to the water shortage, on Wednesday, June 9, 2021, in Tulelake, Calif. DuVal's family has farmed the land near the California-Oregon border for three generations, and this summer for the first time ever, he and hundreds of others who rely on irrigation from a depleted, federally managed lake aren't getting any water from it at all. Credit: AP Photo/Nathan Howard

Ben DuVal stands in a field of triticale, one of the few crops his family was able to plant this year due to the water shortage, on Wednesday, June 9, 2021, in Tulelake, Calif. DuVal's family has farmed the land near the California-Oregon border for three generations, and this summer for the first time ever, he and hundreds of others who rely on irrigation from a depleted, federally managed lake aren't getting any water from it at all. Credit: AP Photo/Nathan Howard

Birds and other wildlife move through a wetland in the Klamath River Basin on Wednesday, June 9, 2021, in Tulelake, Calif. Extreme drought is tearing apart communities in the massive basin, which spans the Oregon-California border. Credit: AP Photo/Nathan Howard

Ben DuVal walks past a dry irrigation pipe in a field he had rented for crops this year but was unable to plant due to the water shortage, on Wednesday, June 9, 2021, in Tulelake, Calif. DuVal's family has farmed the land near the California-Oregon border for three generations, and this summer for the first time ever, he and hundreds of others who rely on irrigation from a depleted, federally managed lake aren't getting any water from it at all. Credit: AP Photo/Nathan Howard
Clouds hover over the the Upper Klamath Lake on Thursday, June 10, 2021, near Klamath Falls, Ore. The farmers draw their water from the 96-square-mile lake, which is also home to suckerfish. Credit: AP Photo/Nathan Howard

DuVal's daughter also dreams of taking over her family's farm someday. But DuVal isn't sure he and his wife, Erika, can hang onto it if things don't change.

"To me it's a like a big, dark cloud that follows me around all the time. It's depressing knowing that we had a good business and that we had a plan on how we're going to grow our farm and to be able to send my daughters to a good college," said DuVal. "And that plan just unravels further and further with every bad water year."

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