

Print this story, sponsored by America's Natural Gas.

## 9. ENDANGERED SPECIES:

### Drying Rio Grande forces emergency measures to keep silvery minnow afloat

April Reese, E&E reporter

Published: Tuesday, July 2, 2013

SOCORRO, N.M. -- In the pale early morning light, Thomas Archdeacon and his small team of fish biologists piled into two all-terrain vehicles and drove across the wide and waterless Rio Grande, looking for any pools the river may have left behind.

"This is completely dry," Archdeacon, who leads a five-person team of U.S. Fish and Wildlife Service biologists, said as the crew scanned the riverbed. "When we were here a few days ago, it wasn't like this."



Biologists release silvery minnows rescued from pools in the drying riverbed in a still-flowing area of the river upstream, just below San Acacia diversion dam. Photos by April Reese.

Soon, they spotted a puddle. Two of the biologists slowly dragged a small seine through the pool, netting a Lilliputian collection of fish and bugs. One handful at a time, they sorted through their squirming bounty, looking for the trademark silvery sheen of the endangered silvery minnow.

At the first pool the team came to, they found one -- dead. After recording their find and its location, they tossed the fish onto the sandy riverbed and moved on. They had better luck at the next pool, tucked into the river's edge in the shade of a tree. They found a lone silvery minnow, alive, which they slipped into a white water-filled tank strapped to the back of one of the ATVs.

Archdeacon's team is on a rescue mission to save as many of the fish as they can from the desiccated river as drought parches the Middle Rio Grande. Federal water managers are gradually scaling back releases from the three reservoirs on this part of the river to try to stretch the small amount of water that's left to support the fish.

The effort is part of an emergency plan approved a month ago to help the fish make it through this unusually dry year. But the plan and the overall handling of the minnow recovery program have sparked criticism from environmental groups, who intend to sue federal water managers over alleged violations of the Endangered Species Act.

As the debate rages on, Archdeacon and his crew have a job to do. And they have to work quickly: The fish can only survive two to three weeks in the hot, oxygen-deprived pools.

The biologists continued upstream in their ATVs, zigzagging across the strangely unmuddy riverbed from pool to pool, some mere puddles, some fairly large, until they reached the receding tongue of water that marks the river's end. On this late June day, this section of river petered out about 18 miles south of the San Acacia diversion dam.

By the time the biologists reached the river's terminus, they had saved 15 of the endangered fish from the pools. They loaded the ATVs back onto a trailer and trucked the fish about 20 miles upstream to a still-flowing stretch of the river just below San Acacia dam, where they set them free. But the fish were in poor shape after struggling to stay alive in the pools, and no one knows how many of them will survive. And as the river continues to shrink, these fish may end up stranded once again.

Most days, Archdeacon and his small team leave for the river at 6 a.m., sometimes not returning until 4 or 5 p.m. Some days they find 30 or 40 minnows; other days they find only a handful.

Conditions on the river are the worst on record. Much of New Mexico is in the midst of the worst drought since 1977, and after two consecutive dry years, there's little stored water left in reservoirs to see the region through.

Little by little, water managers are cutting back releases from the dams along the Middle Rio Grande to conserve what little water is left in them. Each section of the river, defined by the dam above it, is making a steady retreat upstream. This year, the minnow's refuge will be the few miles of flowing river left below each dam.

"I've been here since 2007, and this is the worst I've seen," Archdeacon said.

Last year, the team rescued fish from 50 miles of riverbed; this year, it's covered 30 miles, and the salvage season isn't over yet. Already, the team has relocated more than 900 silvery minnows, Archdeacon said.

But he is working with a smaller crew than he would like this year. Under the across-the-board budget cuts known as sequestration, agencies must apply for a waiver to hire new employees. FWS applied for four waivers to round out the salvage team; it received two.

## An emergency plan

During the morning's salvage operation, Archdeacon took a break from the minnow hunt to join a conference call with the Bureau of Reclamation; the Middle Rio Grande Conservancy District, which delivers water to farmers; city representatives; and others involved in the Middle Rio Grande Endangered Species Collaborative Program. It is charged with trying to balance the needs of the fish with human demands on the river while staying in compliance with the Endangered Species Act. Archdeacon reported on the status of the rescue mission.

"They don't want to go into 'take,'" he said after the call, referring to the limited number of fish that can die due to management activities before triggering legal repercussions. "For them, it's all about the numbers. They want to make sure I'm going to be able to go out and salvage."

Typically, Reclamation doesn't begin scaling back water deliveries until around June 16. But this year, under an emergency plan, it decided to start cutting back on June 3 in hopes of creating a more gradual drying that would allow more minnows to be salvaged and keep water behind the dams longer.

The early cutbacks in reservoir releases are the centerpiece of an emergency plan approved a month ago by a "minnow action team" created by the Middle Rio Grande Endangered Species Collaborative Program. Surplus water stored in the reservoirs from wetter years that had helped the region weather the drought over the past two years is almost gone. The plan is meant to stretch the water that's left and keep some water flowing for the minnow until monsoon season begins this month, which officials are hoping will replenish reservoirs to some degree.

For two of the three reaches of the river where the minnow is found, Isleta and San Acacia, the idea is to have "a measured and controlled river recession in each reach to minimize fish mortality," according to the emergency management plan. The other reach, Angostura, will see a continuous flow.

As a last resort, if even the areas right below the dams dry up, fish will be temporarily moved to holding facilities until the river flows again.

"Every other year, you have some leakage from the dams, but that's only when there's water above the dam," Archdeacon said. "This year, there's going to be nothing coming down the river to leak from the dam."

The current drought is the latest blow to a species that has struggled to stay afloat for decades. The silvery minnow, which once ranged as far upstream as Española in northern New Mexico, now persists only in three reaches along a 150-mile stretch of the Middle Rio Grande in north-central New Mexico, leading it to be listed under the Endangered Species Act in 1994. Another population has recently been established on the Lower Rio Grande in Big Bend National Park in Texas.

These days, most of the fish found in the Middle Rio Grande bear the mark of one of the hatcheries that raise thousands of fish for release into the river each year to augment the ailing population. Archdeacon says this summer, more than 90 percent of the minnows his team is finding during its salvage operations in the San Acacia reach are hatchery fish, compared to about 59 percent last year.

Without the hatcheries, "I think it would still hang on, but I don't think it would recover," he said.



Biologist Andy Dean examines the retreating finger of the Middle Rio Grande in the San Acacia reach near Socorro, N.M.

## Lawsuits loom

The exceptionally dry conditions on the river this year mean Reclamation will be in violation of the 2003 biological opinion from FWS, which lays out target flows to support the fish. (The biological opinion expired in February but continues to guide the collaborative program until a new one is finalized.)

That does not sit well with WildEarth Guardians, a Santa Fe-based environmental group, which recently filed notice of its intent to sue Reclamation and FWS for violating the ESA.

"Nobody, none of the agencies, is really playing a substantial leadership role and putting endangered species first," said Jennifer Pelz, wild rivers program director for the group. "We feel like if no one's doing that, it's our responsibility to speak up on behalf of the species and on behalf of the river. The species are just a canary in the coal mine for the poor state of the river today."

Rescuing fish is not a valid long-term recovery strategy, she added.

"Their interim plan for 10 years has been to relocate the fish to places where there's water," she said.

Pelz added that historically, the fish could go upstream to try to escape natural river drying, but the dams built since the 1950s block their way.

Federal officials say the emergency measures underway will actually save more minnows than trying to follow the biological opinion would have. If officials had adhered to its requirements, water dedicated for the minnow would have been used up by June 16, which would have led to "unprecedented river drying," according to the emergency plan. And that drying could have wiped out the minnow population in the southern part of the Middle Rio Grande, below the Angostura Diversion Dam, it said.

"Instead of meeting the strict requirements under the 2003 BO, we want to use the water in a way that can guarantee as many fish survive as possible," said Mike Hamman, manager of Reclamation's Albuquerque area office. "We were going to run out of water, and we weren't sure how dry it was going to get. By August, we could have been out of water."

But Pelz sees the emergency plan as a symbol of opportunities lost.

"This experimental plan may be the best thing we can do this summer, but if it doesn't work, we'll have no minnows," she said. "We've spent a lot of money, and we're not in any better a situation than we were then [in 2003]."

While the 2003 biological opinion is far from perfect, today's crisis may have been averted at least in part if some of its directives had been followed early on, Pelz said. For example, the fish passages called for in the biological opinion would have helped. Pelz also said Reclamation could have tried leasing from farmers in the Rio Grande Basin over the years.

"The agencies themselves played a significant role over the past decade in creating the emergency they now need a plan to address," Pelz said.

The Middle Rio Grande Conservancy District, which supplies irrigation water to the region's farmers, is one of the largest water users in New Mexico, tapping about 140,000 acre-feet of Rio Grande water each year.

Tom Thorpe, a spokesman for the district, said it supports the emergency plan.

"We know something has to be done for the minnow," he said. "This is a rather unusual circumstance for us, the drought like this. So we work in tandem with Reclamation and FWS."

## Long-term worries

The district exhausted its cache of stored water yesterday.

"We are dependent on Mother Nature from here on out," Thorpe said.

Flows are expected to be just 18 to 24 percent of average this summer, according to the Natural Resources Conservation Service.

Farmers aren't directly affected by Reclamation's decision because the water it stores on the river is specifically for the minnow, Thorpe said. But managing water for the fish, without taking into account the needs of farmers, could have far-reaching economic impacts, he added.

"It's a very delicate dance. You have to think about the fish, but you have to think about the irrigators and farmers. This determines their livelihood. This is how they make money. So to tell them, 'You can't have any water,' it can put them out of

business."

Archdeacon likened the debate over longer-term plans for the minnow to one of the most controversial endangered species conflicts in the United States.

"If the minnow was cute and cuddly, this would be like the spotted owl," he said, referring to the divisive maelstrom over federal protection of the northern spotted owl in high-value old growth forests in the Northwest during the 1990s.

Last week, New Mexico Sen. Tom Udall (D) added an amendment to the energy and water fiscal 2014 appropriations bill that urges water managers to develop a long-term water supply plan "to better meet the environmental needs of the basin than short-term acquisition," according to a news release from Udall's office.

The measure also encourages the use of a water leasing program with farmers in the Middle Rio Grande Valley and calls for more restoration work in the San Acacia reach of the river and better planning for drier scenarios on that section of the Rio Grande.

Meanwhile, Hamman said federal water managers are trying to close a deal that would provide additional water for the minnow from cities and other water users that receive water from the San Juan-Chama Project, which pipes water from the San Juan River, a tributary of the Colorado River, into the Chama River, which empties into the Rio Grande in northern New Mexico.

And officials are working on a long-term plan they hope will better prepare the Middle Rio Grande region for what's likely to be an increasingly water-limited future as climate change shrinks snowpacks and alters the hydrology of the river.

"It's a real pivotal time right now," Hamman said. "We're a little behind schedule on some of this stuff, but we're making a lot of progress."

Advertisement



ENERGYWIRE

ClimateWire

ENVIRONMENT & ENERGY DAILY

Greenwire

E&E NEWS PM



The Premier Information Source for Professionals Who Track Environmental and Energy Policy.

© 1996-2013 E&E Publishing, LLC [Privacy Policy](#) [Site Map](#)