



Anson Stevens-Bollen

A River Trickles Through It

With some help the Santa Fe River can be a river again

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By [Laura Paskus](#)

On a gray Saturday morning in mid-May, David Trujillo packs up his gear and 2-year-old son, Oziah, and heads to the Santa Fe River at Don Gaspar and East Alameda. Hand in hand, the two stand in the muddy grass along the riverbank—Oziah in a bright green slicker and skull-and-crossbones galoshes—fishing for rainbow trout.

In anticipation of the annual Children’s Fishing Derby, the New Mexico Department of Game and Fish has stocked the river with 500 rainbows.

Yet Oziah doesn’t look thrilled. And neither do two other kids, outfitted in rain jackets and huddling beneath the bridge in the drizzle. Larry Jaramillo, meanwhile, is close to resplendent. With his two daughters hiding out nearby, he holds up five trout—noting that no, he doesn’t usually get to fish the Santa Fe River.



David Trujillo and his son Oziah survey the Santa Fe River during the Children's Fishing Derby on May 16.
Laura Paskus

That's because trout can't typically survive this stretch anymore. There isn't usually enough water.

Jaramillo's excitement aside, it's a miserable day for a fishing derby. Snowy. Muddy. Cold. Rainy.

But damn, it's a fine day to be a river.

With snow falling even in town, the river is ripping through Santa Fe at more than 20 cubic feet per second. But it's not just the snow and rain—or the stormwater drains channeling runoff into the riverbed. The flows are the result of city water managers deliberately releasing water from the upstream reservoir.

In the arid West, it's easy to dry a river. Farmers can divert its waters onto fields and orchards; cities can suck water into pipes that snake beneath their streets; groundwater pumping can drain some rivers dry. And water managers build dams or encase riverbeds in concrete channels.

It's a lot harder to keep a river wet. Or to put water back into a bed that's been neglected.

But that's what the City of Santa Fe has been trying to do the past few years.

In February 2012, the Santa Fe City Council passed a wonky-sounding law called the Santa Fe River Target Flow for a Living River Ordinance. The Living River Ordinance allows the city to put up to 1,000 acre-feet of water back into the Santa Fe River—not to deliver water to downstream users, but just to keep the channel wet. The plan is to release flows that mimic natural seasonal cycles and nurture the native vegetation being planted along the riverbed.

“For the first time, a city would give water to a river,” says Andy Otto, executive director of the Santa Fe Watershed Association.

The ordinance grew out of a 1989 master plan that the city had adopted as policy. It was championed by former mayor David Coss and nudged along by a broad alliance of conservationists, citizens, city employees, politicians and acequia users.

“This town has always longed for a riparian living river running through the heart of its city,” says Leroy Pacheco, Watershed and Trails Section supervisor with the city’s Public Works Department.

And now, it’s getting that.

Most Santa Feans could be forgiven for not knowing a river cuts from east to west just south of the Plaza. Peer over any of the bridges crossing what can resemble a scummy ditch, and you won’t see much water. By the late 20th century, the river had become incised and channelized, with little water and a whole bunch of trash.

But it wasn’t always this way. Until about 100 years ago, the Santa Fe River—which empties into the Rio Grande on the Pueblo of Cochiti—was a perennial stream. It probably didn’t make it all the way to the rio every day of the year. But it did flow through the city and down toward La Cienega.

Then, people started building dams on the river upstream of the Plaza. The first one, Stone Dam, was built in 1881 and held back about 25 acre-feet, or about 8 million gallons. Then, Two-Mile Reservoir was built a decade later to store more than 300 acre-feet of river water.

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Today, Nichols and McClure reservoirs supply Santa Fe with about 40 percent of its water. Together, their capacity is almost 1.3 billion gallons.

“When McClure was finished, bringing up the height of the dam, in 1984, the river ceased to flow perennially,” says Phil Bové, commissioner of the Acequia Madre—a channel that dates to the 17th century—and a longtime advocate for the river. “To the people of the city and the county, I think, the river channel started to be a dump. With no water in it, there was no respect for it.”

With nothing for them to divert from the river, the acequias started drying up, he says, explaining that the water treatment plant near the reservoirs had been owned by Sangre de Cristo Water Co., a subsidiary of Public Service Company of New Mexico. In the late 1980s, the utility planned to glean all the spring runoff from the river. “The idea,” says Bové, “was to take spring runoff so the water wouldn’t be wasted going down the river.”

By then, he says there were only four acequias left in the city—down from 39 in the early 1940s.

“They refused to release any water to the acequias,” he adds, “so in 1990, the Acequia Madre and Acequia Cerro Gordo took PNM to court.”

The acequia associations won the suit, and today, the city—which took over the water company from PNM in 1999—is legally obligated to supply them with water.



Repairs to the McClure Reservoir required the city to let all the water flow downstream. Together, the city’s reservoirs can hold more than 1.3 billion gallons.

Laura Paskus

The largest association, Acequia Madre, is only about 7 miles long, serving 43 users. One family has a pasture, but most of those people use the water for landscaping or small gardens. Even Bové laughs as he explains that he’s too busy running the acequia to grow a garden. Acequia Cerro Gordo is only a mile long, with eight parcientos. But the acequias are an important part of the City Different. James Gollin, president of the Canyon Neighborhood Association and a member of the Acequia Cerro Gordo, says they nourish gardens and orchards, while providing a tie to past generations. “The acequias,” Gollin says, “are a key part of what makes this place feel like home.”

And Bové says he believes that the victory in court was one of the catalysts for change on the Santa Fe River.

So was the city’s takeover of the water company from PNM.

The City of Santa Fe has rights to about 5,000 acre-feet of Santa Fe River water that can be used for faucets, gardens, businesses and bathtubs. It also protects the watershed, the forest surrounding the reservoirs and the river’s headwaters in the Sangre de Cristo Mountains. Santa Fe’s watershed is unique in that it’s off-limits to visitors. Only city workers and Forest Service personnel can get up there, and it’s patrolled by security guards. The city offers occasional tours, and most public school students visit as part of their science curriculum.

At the end of April, Santa Fe's Source of Supply Manager Alex Puglisi invites city employees, friends of the river and parcientes of the local acequias to the Canyon Road Water Treatment Plant. Outside, there are junipers and blue skies—and surely one of the most picturesque water plants in the state.

With visitors squeezed into the breakroom, talk turns to the Living River Ordinance and the role the river plays in the city, beyond providing drinking water.

Puglisi explains that the releases depend on the amount of water being held in upstream reservoirs, as well as runoff forecasts for the spring. The city employs some complex calculations to determine when runoff from mountain snows will fall below 75 percent of the 30-year historical average, and when it does, Living River flows are scaled back.

Last year, the city released river pulses that added up to only 300 acre-feet of water.

This spring, with higher runoff predicted, the river is set to receive 600 acre-feet of its own water. Releases began in mid-April and are set to continue every day through July.

A biologist, Puglisi has worked for the City of Santa Fe as well as the New Mexico Environment Department and the Pueblo of Sandia's Environment Department. Now, his job involves maximizing the city's water supply, making sure there is water for the acequias and maintaining the reservoir levels in a way that's safe for both city and downstream residents and also good for the lakes themselves and the creatures living in them. In short, his job has a huge impact on the City of Santa Fe—including public safety.

"I definitely think about all that stuff, especially for the last two weeks," he says, as he's constantly watching the forecast, to determine how much rainwater and runoff will be flowing into Nichols Reservoir, and trying to adjust how wide he needs to open the valve to let flows run out of it.

Recently, citizens and even city councilors have pressed him, asking if the water flowing through the river is being "wasted"—especially as people are asked to conserve more water all the time. And while constantly having to defend leaving water in the river's own channel must get tiresome, the Santa Fe's recovery provides a fine reason to wake up each morning.

"The Living River Ordinance is one of the biggest steps a city has taken," he says. "It was something that people have asked the state to do for a long time—to keep water in the river for instream flows."

Unlike some Western states, such as Colorado, rivers in New Mexico don't have any right to their own water. Only humans have water rights. With the proper pieces of paper, cities, farmers, industrial firms and others can deplete every last drop—leaving nothing for wildlife or riparian vegetation.

To be clear, the ordinance doesn't give the Santa Fe River claim to its own water. Instead, it allows the city to release water into the channel when it can meet all of its other water demands.

"With climate change and all its unpredictability, it's good to have that security and to make sure your infrastructure is safe."

After talking at the plant, Puglisi drives a few of us into the watershed. Looking over the edge of the road as we drive through the watershed, I notice what a tiny river it is, even up here. It's a testament to the power of water: to carve stone, to provide life and to etch history onto one parcel of land versus another. After all, there would never have been a Santa Fe without its river. Thanks to advances in technology, the city gets its water from many sources. Today, the Santa Fe watershed provides the city with less than half its water. But historically, the river's regular flows are what invited people to settle here.

We continue a few miles up the road to McClure, which is temporarily empty after the city drained it last year for overdue repairs. Puglisi is still flinching from the criticism over that choice—especially since it's estimated to take at least two years to fill the lake again after construction is complete.

Melissa McDonald, the city's River and Watershed Coordinator, has heard the critics, too. But the work made sense, McDonald says.

Just as snow and runoff have become increasingly unpredictable, so too have summer rainstorms. In the middle of September 2013, a daylong deluge added 21 percent to the reservoir. Within two weeks, it was up 88 percent. Under those conditions, cracks in the reservoir could have deadly consequences.

"With climate change and all its unpredictability," says McDonald, "it's good to have that security and to make sure your infrastructure is safe."

Just past the Canyon Road Water Treatment Plant—right before the locked gate at the base of the watershed—is the Randall Davey Audubon Center & Sanctuary, which this time of year is home to hundreds of species, including yakky songbirds and droves of territorial hummingbirds.

The trees and landscaping that provide habitat for all those birds are here thanks to the Santa Fe River. And a few years ago, as members of the Acequia del Llano, Audubon staffers started asking themselves how they might give back to the river.



Riparian restoration along the river channel near Frenchy's Field also led to recreational transformation.
Laura Paskus

“Could we conserve some of the water being diverted and dedicate a portion of it to streamflow?” asks Beth Bardwell, who directs Audubon New Mexico’s Freshwater Conservation program. “Because we’re the uppermost acequia, we’re uniquely positioned to augment streamflows in the Santa Fe River.”

With the approval of the acequia board, they drafted a proposal allowing Audubon and other parcientes to dedicate some of their water to the river. Specifically, the voluntary program would allow for a late season replenishing flow in October and November, Bardwell says. Parcientes would not be giving up their water rights—just using them to supplement the river.

Now, it’s just up to the New Mexico Office of the State Engineer to approve the program.

It’s a concept already at work in other parts of the state, but the Santa Fe proposal has an acequia twist, she says.

A longtime advocate of instream water rights, Bardwell explains that when New Mexico’s water code was originally written in the early 1900s—even before statehood—the emphasis was on permitting human uses of water.

"There wasn't any recognition that stream systems might need water to remain healthy."

“In that process of appropriating water from our stream systems,” she says, “there wasn’t any recognition that stream systems might need water to remain healthy.”

That means that during drought—or in the case of the Santa Fe River, even during times of plenty—there may not be any water in the state’s rivers.

The last time I'd walked along the Santa Fe River channel along Frenchy's Field on Agua Fría was the spring of 2012, and the channel was dry and sandy. It didn't look like a riverbed, so much as a construction site. To be fair, that was due in part to workers dropping boulders in the channel for contours and planting cottonwood and willow saplings.

To say the transformation has been glorious is kind of goofy. But it's also an understatement.

In mid-May, water is churning down the riverbed—even braiding in some places like a real Western river. The willows wave above my head, and the cottonwood saplings seem sturdy and sure. And unlike three years ago, people don't just keep to the paved path up above the river. Today, they're all along the sandy trail along the river channel—running, walking dogs, daydreaming or staring at the water as it cascades downstream.

A few days after the fishing derby, the city bumped up flows again. After heavy spring storms, reservoir levels were rising—so high that water had to be released into the channel so that it didn't pour over the spillway.

By then, the running river was too much for Cullen Hallmark and his 19-year-old son, Grayson, to resist.

They'd been watching the USGS real-time streamflow data and noticing spikes in the river's flows, up to 39 cfs above the Audubon Center. After hearing that the city would be releasing even more water, they knew the time had come to scout the river.

“You don't do a run like the Santa Fe River without really checking to make sure that it's safe, so we walked every foot of it, from Patrick Smith Park to Camino Alire,” says Hallmark, a Santa Fe attorney and chairman of the board of the New Mexico Land Conservancy. “The water is so fast that you can't stop. If you come around a corner and see a branch, you may or may not be able to stop in time, so you have to be very on top of the topography of the river.”

After scouting and clearing obstacles where they could, the pair kayaked the river two days in a row. “It was a rush,” Hallmark says. “We have this crazy little river that doesn't run most of the time. But once in a great while, it's available.”

He recalls passing through the intersection of St. Francis Drive and Alameda when he was a student in the 1970s. The river wasn't as channelized back then; in the '80s and '90s, before the city was doing serious restoration work along the riverbanks, it had gotten scoured out.



Cullen Hallmark prepares for to run the river in a kayak near Patrick Smith Park.
Sue Dreamer

“I saw kayaks going down the Santa Fe River, and I thought to myself, *That’s the nuttiest thing I ever saw,*” he says. “At that point, the river wasn’t running very much anymore, and I thought that was a once-in-a-lifetime thing.”

Most Southwestern rivers, he says, are long and slow, punctuated by short rapids. Running them means hitting an adrenaline high on the short rapids and then spending lazy stretches staring up at the big, wild sky.

“The Santa Fe River is high energy the whole time,” he says. “You’re always going, and you’re always going fast.”

Whereas a couple of decades ago, the river’s channel was scoured, and the banks were weedy or barren, the city’s restoration efforts have really paid off.

“Now, you’re charging through this little bitty creek through this green forest and can’t even see the sky,” he laughs. “It’s so incongruous with what we usually expect in New Mexico. This is the land of big, open skies and dry desert—and here you are in this subterranean green belt.”

Hallmark likes to think about how this river would have drawn people to settle here, whether in pre-puebloan times or in more recent centuries. Taking the old La Bajada Road lends a view of where the Santa Fe drops toward its confluence with the Rio Grande. “You see this big cleft in the escarpment, and there’s the big river canyon,” he says. “In this barren land, to see this crystal-clear river coming out of the canyon, it must have been something incredible.”

And the thing is, it’s still incredible. “Yes, it’s an endangered river, and most of the time it’s treated like a sewer,” he says. “But once in a while, it shows signs of what it must have been like in the past.”