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Who's Killing Jacob's Well?

For the second year in a row, the iconic spring-fed swimming hole has stopped flowing, the consequence of drought and overpumping.



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It was a scorching day in July 2022 when I last peered into Jacob's Well. In a sense, I had come to pay my respects. The artesian spring had stopped flowing again—the consequence of drought and overpumping in Hays County, one of the fastest-growing in America.

For millennia, Jacob's Well has boiled up from within the Trinity Aquifer, its cool waters traveling under pressure through a series of limestone chambers more than 4,300 feet long until they emerge at the surface, a round pool only 12 feet across, rimmed by sun-bleached Hill Country limestone. These are the headwaters of Cypress Creek, the achingly picturesque stream that flows through Wimberley and feeds Blue Hole, a popular swimming spot. During drought, the creek replenishes the Blanco River, itself a tributary of the San Marcos and Guadalupe Rivers. As the Blanco flows over the Edwards Aquifer, the river contributes to the groundwater that supplies the beloved Barton Springs in Austin.

On this day, Jacob's Well did not look very well. Instead of gurgling up out of its underground chambers, the spring was silent. Its water stood still, suspended at the rim. For only the fifth time in recorded history, the well had stopped running. The first occurrence was in 2000, and the cessations have become more frequent and longer, spanning weeks and months. Without its lifeblood, Cypress Creek was dry as far as the eye could see. I was here in a professional capacity, reporting on water scarcity, but I couldn't help but feel I was visiting a friend in hospice care.

Jacob's Well and I go back a ways. As a high school student in Wimberley, I would occasionally trespass to swim in its turquoise waters. Back then, in the nineties, the well was a hidden gem, known and frequented mostly by locals. But late that decade, plans emerged for a nearby mobile home park and condos, which would have sucked up precious groundwater. That's when local conservationists formed the Wimberley Valley Watershed Association and pulled off a minor miracle. By the mid-aughts, they had bought up 160 parcels around Jacob's Well, stitching together a patchwork of fragmented lots into a cohesive whole. The \$5 million effort not only prevented the spring from becoming part of a residential development, it laid the groundwork for 81 acres to become a county park in 2010.

On that sweltering day thirteen months ago, Robin Gary, the managing director of the watershed association, showed me around the park. Though the county had **banned swimming** because of the threat of high bacteria counts, not everyone had gotten the message. Two college students, bathing suits on, had driven three and a half hours from Fort Worth to take a dip. Gary patiently explained why they couldn't dive in, but she also took the opportunity to offer a deeper lesson.

“Around here, the businesses and the neighborhoods all depend on the groundwater that supplies Jacob’s Well for their wells and their faucets,” Gary said. The spring is an indicator of the overall health of the aquifer. Its sad state, she explained, is “a bad sign for well owners. There are a lot of people hauling water because their wells are going dry right now.”

Fifteen minutes later, we passed by the spring again. Gary’s eyes got wide. It had started flowing. It was barely a trickle, but the water was moving, filling a few puddles where Cypress Creek once ran. “See how it’s flowing now and it wasn’t before?” she said. “This is the effect of pumping. You have just seen the effects of pumping.”

What had happened, Gary explained, is that the major water supplier for the area—Aqua Texas, a subsidiary of a publicly traded company called Essential Utilities—had turned off the pumps at its nearby well, which taps into the same part of the Trinity Aquifer as Jacob’s Well and accounts for 85 percent of pumping in the Jacob’s Well Springshed. Pumps on, no flow. Pumps off, a trickle. Here was a vivid demonstration of why the well—and the Trinity Aquifer—is in such trouble. Extreme drought plus relentless growth is depleting the groundwater in this suburbanizing part of the Hill Country. As water levels decline, springs are drying up.

As bad as last summer was, summer 2023 has been worse. It’s hotter and drier. Blue Hole is so low that the city of Wimberley **closed the park** to swimmers for at least two weeks starting on August 21. The Blanco River is

barely a trickle. The water in Jacob's Well has receded even farther underground, and the aquifer is at a historic low. Aqua Texas is permitted by the Hays Trinity Groundwater Conservation District to pump around 100 million gallons a year. That amount of withdrawal is hurting the spring, but Aqua Texas is also going far beyond what is legally permitted. Last year, the company pumped out 191 million gallons. This year, the problem has grown. By June, the company had already pumped 178 million gallons—nearly twice its allotment and enough water to keep the well running for at least two hundred days during low conditions.

All of this was forewarned. In 2009, I wrote an article for the *Texas Observer* on Jacob's Well and the problems of groundwater scarcity in Hays County. At the time, David Baker, the founder and longtime director of the Wimberley Valley Watershed Association, described the situation as dire: "I think we've reached the limit, yet more homes are going in as we speak," Baker said. "And that's the dilemma."

Fourteen years later, the building boom hasn't relented. Hays County grew from about 66,000 in 1990 to almost 270,000 today. By 2045, more than 630,000 residents could populate the Central Texas county.

Around Jacob's Well, 2,300 lots can still be built on, and Aqua Texas says it is obligated to provide water to customers. "The crux of the problem is that we've already overpumped the aquifer probably by thirty or forty percent of what's sustainable," said Baker when I talked to him in August. "Aqua Texas's commitment is to their shareholders and ours is to the stakeholders. You can't just keep expanding in a system that is already being mined."

In response to such criticism, president Craig Blanchette disputed Baker's characterization. He said that Aqua Texas, as a regulated entity, generates profits only from its capital investments, not how many gallons of water it sells.

A few years ago, Baker and others successfully pressured the groundwater district to create a priority management zone around Jacob's Well, where the science shows most of the recharge to the spring occurs. During drought, pumping is severely curtailed in the zone.

Amid a flurry of bad press and public outcry, Aqua Texas has been trying to appear to be a responsible steward of the aquifer on which its profits depend. It has recently tested two new wells located just outside the management zone, in a different part of the aquifer. "Our number one priority in the Wimberley Valley is to reduce reliance on water used within the Jacob's Well Groundwater Management Zone," Blanchette told me. He said preliminary results from new wells showed that they may be a "favorable and viable option" to reduce or eliminate pumping at Aqua Texas's other well. Blanchette said his company will be more aggressive in cracking down on wasteful customers. He also pointed to a \$3 million investment in replacing leaky pipes.

Baker is skeptical of Aqua's promises. He said preliminary results show that pumping from the new wells drew down Jacob's Well along with private wells in the area—results confirmed by Charlie Flatten, the groundwater district manager, though Flatten stressed that it will take more analysis to reach any firm conclusions. Ultimately, Baker worries that profit-making imperatives of Aqua Texas and the land developers will triumph over conservation. "If we're going to trade two thousand or three thousand houses for Jacob's Well, I don't think that's a very good deal."

Jacob's Well has strange powers: it can pull you in and refuse to let go. In the late eighties, Baker and his wife took a business trip from their home in California to the Austin area. A side excursion led them to Jacob's Well, where Baker describes having a spiritual experience. "The hair on my arm just stood up," he said in 2011. Within months, the couple moved with their nine-month-old son to a home within spitting distance of the well.

Stephen Harrigan, a contributing writer for *Texas Monthly* and the author of *Big Wonderful Thing*, an acclaimed history of the state, was similarly charmed. In the seventies and early eighties, he made about twenty scuba dives into the well's depths, later channeling his experiences into a novel, *Jacob's Well*, which grapples with the underwater cavern's deadly allure. (At least nine divers have died exploring its chambers.) "Nothing in my experience had ever prepared me for this place, this opening to the center of the world," Harrigan told me. "It had this jewel-like, bewitching clarity to it. You know, it's just a hole, but it's also a portal. You sense that as soon as you see it—that this place is really special, that it's really mysterious, that it's going to lead me somewhere I've never been."

Harrigan is startled by the well's rapid decline. Forty years ago, "you couldn't imagine it disappearing, because it just seemed so eternal."

What would it take to save Jacob's Well? Overpumping would have to be stopped, and eventually reversed. The Hays Trinity Groundwater Conservation District took a step in that direction recently, declaring that during emergency drought conditions, no new groundwater permits will be issued. The district also levied a \$448,710 penalty on Aqua Texas for overpumping in 2022, but the company countered with a penalty of zero dollars and offered instead to fix its leaky pipes. Hays Trinity then rejected that offer, and negotiations are ongoing. Greg Ellis, an attorney who represents the district, suggested that a settlement would likely include a penalty as well as an agreement by Aqua Texas to take actions that would reduce pressure on Jacob's Well. If a settlement can't be reached, the company's permit may not be renewed in 2024. Permit violations "will continue to be an ongoing issue until either [Aqua Texas] gets much bigger permits or they bring in alternative water supplies," he said.

Baker would like to see Aqua Texas sell its assets to the local community. A public utility would do a much better job fixing leaks, promoting conservation, and investing in long-term strategies to restore the spring, he argued. But if the company won't sell, then it's imperative that it move its

pumps to a site where they won't be detrimental to important springs, Baker says.

Even trickier is how to manage growth. Most of the area around Jacob's Well isn't part of any city. Unlike cities, counties in Texas have very few tools to restrict development. The governor and legislative leaders, whose campaigns are funded in large part by business interests, have shown little interest in any regulation that might slow economic growth.

Then there's the matter of wells sunk by owners of homes, businesses, ranches, and vineyards—the thousands of individual straws sipping from the ground. When the Legislature authorized the groundwater district in 2001, lawmakers prohibited it from regulating residential and agricultural wells. Landowners can legally pump a nearly unlimited amount of water to fill ponds and swimming pools and to irrigate lawns. Some 95 percent of wells in the groundwater district are exempt from oversight, representing an estimated 60 percent of all pumping. In 2022 alone, 145 new unregulated wells came online.

Regional groundwater managers, including the Hays Trinity district, are planning to allow significant aquifer mining. They're planning for the Trinity to be pumped down another thirty feet by the year 2060. And yet even this lenient allowance may be exceeded decades ahead of schedule—at the current rate, the annual groundwater budget for western Hays County will be eaten up by 2032.

The impossible-to-ignore impacts of growing scarcity have spurred debate and consternation. A Facebook group for Wimberley is sprinkled with outraged anecdotes about neighbors wasting water and tips on how to conserve (take a shower with a five-gallon bucket and use the gray water to keep plants alive), with others warning that “snitches get stitches.”

Flatten argues that “cultural norms” around water use must shift. “It's unconscionable that when we're in a severe drought that anybody would think it's a good idea to be dumping drinking water onto the lawn. That's a dynamic that just will not be able to persist in the future.”

Vanessa Puig-Williams, a water expert with the Environmental Defense Fund, said the time has come for more-aggressive regulation. She would like to see the district impose a cap on pumping tied to the health of springs such as Jacob's Well—an approach similar to the one by which the Edwards Aquifer is managed. Groundwater regulators are reluctant to go that far out of fear of lawsuits. Relative to other states, Texas takes an extreme view: groundwater is private property, and the government could be forced by the courts to compensate landowners whose pumping is limited. But Puig-Williams says districts have been too reluctant to test the limits of the law. And she said the state should help aquifer managers pay landowners for their groundwater to protect natural assets like Jacob's Well. "It might be time now for us to just think about how we have to take privately owned groundwater in order to preserve it for the public good," she said.

Another bold idea almost came to fruition last year. Baker said the watershed association was under contract to purchase 1,300 undeveloped lots and a golf course, along with the attendant water rights, from a developer called Wimberley Springs Partners. The idea was to commit the property to a conservation-based development strategy, whereby some land would be dedicated to open spaces and parks while residential development would be limited to a cluster of homes tied to rainwater catchment and recycled wastewater.

The parties couldn't agree on a price, and the deal fell through. Now Baker is moving on to plan B: working with local elected officials and others on a regional master plan for western Hays County that would include a framework for encouraging the new private developer to follow the conservation-development model.

Flatten says the region needs to find alternative sources of water, through such means as desalination, groundwater sources other than the Trinity, or aquifer storage and recovery. The goal would be to "replace groundwater during drought and *supplement* existing groundwater supplies" during times of sufficient rainfall, he wrote in an email in mid-August to elected officials. "Without alternatives, sustaining growth or adequately managing drought

won't be possible." But Flatten concedes that a tiny groundwater district, intentionally hobbled by the Legislature, isn't equipped to carry out expensive and complex water projects.

Baker, too, acknowledges that the road ahead is difficult, but he refuses to give up on Jacob's Well. He is an artist—a painter—and he brings a creative mind's sense of the possible to the seemingly impossible. "If we can't protect Jacob's Well, if we can't protect something that is so sacred and special, what can we protect? Jacob's Well is not only this environmental icon, it's also a metaphor. It's also spiritual. The question has been called: What will we do?"

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