

NEWS & POLITICS

The Prophet of the Playas

In the Texas Panhandle, Darryl Birkenfeld is betting on the miracle basins to bring revival to a sputtering Ogallala Aquifer.

By Bekah Stolhandske McNeel

September 23, 2026



Darryl Birkenfeld at the Ogallala Commons “Playa Classroom,” in Nazareth, on August 26, 2026.
Reid Bader

▶ Digital subscribers can listen to this article.

There was a man from Nazareth; his name was Darryl. As farmer, educator, and former priest, Darryl Birkenfeld has devoted his life to a sort of resurrection. Not the lynchpin dogma of the Catholic Church, but a different kind of return for one of the most life-giving features of the Great Plains. Birkenfeld has devoted himself to the playas.

Of all the state's surface water features—which include rivers, lakes, and creeks—playas are among the least suited to a conservation campaign. The 23,000 grassy depressions in Texas range in size from 0.01 to 841 acres and rely on rain to fill their shallow basins, which hold on to surface water only long enough for it to be absorbed into the slowly recharging aquifer below. When it doesn't rain enough, these depressions can stay dry for years. They flood too often to be farmable and go dry too quickly to serve as reliable sources of water for livestock or recreation. But now Birkenfeld and a growing number of others are placing their bets that playas will prove salvific for a region going dry.

Birkenfeld is the sixth of twelve siblings in one of Nazareth's oldest German Catholic dairy-farming families—their name is emblazoned on a stained glass window of Holy Family Catholic Church, at the corner of St. Mary and St. Joseph. Never the best farmhand among his siblings, he leaned toward books and study, and he describes his eventual call to priesthood at age nineteen as one to build community. "There are things we can only do together that we can't do by ourselves," Birkenfeld said. That's true for the land too. Midsized farms and ranches once supported shops and restaurants in small towns where his family and parishioners lived.

But over the course of his own 65 years, Birkenfeld has watched the agricultural economy of the Panhandle change, and along with it, the land itself and its people. Playas have been dredged for irrigation or filled to hold crops. Other water features have gone with the drying landscape. At the Swisher County Archives and Museum, twenty minutes from Nazareth, the amiable curator showed me a photo of mid-century water skiers on Tule

Lake, a creek that had been dammed to create a small reservoir, now dried up. Birkenfeld had always hoped that Nazareth and its neighbors would be the kinds of hometowns people would move back to, where one might raise kids or carry on the family business. Reality turned out to be much more precarious.

Playas became beautiful to me as I watched Birkenfeld stand in a basin, preaching its value to thirty biologists and landowners surrounded by the golden fade of late-summer smartweed and auburn curly dock. He had convened his regular group of playa enthusiasts to meet with shorebird conservationists to discuss playas as a critical habitat for plovers, avocets, sandpipers, and their kin, migrating in fall and spring. They were gathered in the “Playa Classroom”—the playa on Birkenfeld’s property set up as an interpretive center for the public to learn about the various features and functions of the landforms.



Shorebirds just south of Nazareth resorting to a dairy runoff ditch in a dry playa season.
Reid Bader



Birkenfeld leading a workshop at the Ogallala Commons Playa Classroom, in Nazareth.

Reid Bader

I wasn't the only admirer. "That's a nice crack," said Tavin Dotson, a regional biologist for Ducks Unlimited, as he bent over a deep crevice in the clay. He shoved a T-shaped probe into the soil to measure the thickness of the clay lens—the layer of clay making up the playa basin. Dotson works to incentivize landowners to restore playas on their land—usually by scraping away soil used to fill in the depressions or filling in places where the playas were dug deeper to act as long-term livestock tanks or irrigation pits. Ducks Unlimited and Ogallala Commons, which Birkenfeld led for years, are both members of a coalition of organizations promoting playa restoration—collectively known as the Texas Playa Conservation Initiative—along with Texas Parks and Wildlife, Texan by Nature, the U.S. Fish and Wildlife Service, the U.S. Department of Agriculture, and the multistate bird-habitat-conservation nonprofit Playa Lakes Joint Venture. Members often meet with landowners and use precision farming tools to show how much profit and loss each acre of their land yields, sometimes making the case that playas

could be more profitable as water banks than as irrigated cropland. Then they make the offer: They will cover the total cost of the restoration and pay the landowner \$80 per acre to let a playa stand for ten years.

They might also mention the role playas play as wildlife habitat, Dotson said, but the water crisis is dire enough that most landowners are motivated by the mere possibility of boosting their groundwater supply. Since its inception, in 2015, the Texas Playa Conservation Initiative has restored more than 3,700 acres of playas and 560 acres of saline lakes on private land, yielding an additional 305 millions of groundwater recharge annually.

But its work is up against a new challenge, as another industry has its eyes on the wide-open spaces of the plains: data centers. At least **thirteen distinct data centers** are in various stages of development in the Panhandle, some in the very counties where farmers and ranchers are being asked to conserve water. Companies developing the centers—like Fermi and Google—are responding to pressure to find less water-intensive ways to operate, but their consumption is only one of the problems Birkenfeld sees. Data centers are, in Birkenfeld's paradigm, a sort of endgame of extractive land use. They are the carpetbaggers moving into a region ravaged by the ambition of previous generations.

When he talks about the land, about interdependence, he sounds a lot like the late Wendell Berry, the patron saint of folks like Birkenfeld. "The soil is the great connector of lives, the source and destination of all," Berry wrote in 1977. "It is the healer and restorer and resurrector, by which disease passes into health, age into youth, death into life. Without proper care for it we can have no community, because without proper care for it we can have no life."

When a playa goes dry, the Randall clay that makes up its basin contracts, leaving large cracks in the ground. That's how the water gets into the aquifer below, at a rate ten to one thousand times greater than on the surrounding farm- and rangeland. If the clay is covered up by topsoil for crop planting or saturated and swollen with irrigation runoff, the clay can't do its job; the

cracks can't show. But when the cracks are deep and wide, full of dormant seeds waiting for the chance to sprout, the next big rain falls almost straight into the aquifer until the clay expands again, closing the cracks. The water stays and wildlife enjoy it until it evaporates, and a new generation of grass grows to cover the basin.

A careful balance of wet and dry is not how Texans—or Americans, really—have approached the sandy-soil lands sustained by the Ogallala, the largest aquifer in the country, covering 174,000 square miles and eight High Plains states. Under the illusion of infinite supply, a twentieth-century ethos prevailed: Take everything you can get. Irrigate and farm every square foot, harvest every plant, and do it again next year. Graze until the grass is gone, then grow it again.

The goal was to elicit predictable cash crops from a region that looked like a blank slate of wide-open grassland. Landowners filled their playas in with topsoil to increase planting acreage, dug them deeper to try to hold more rainwater, or built berms to redirect rainwater and storm runoff. Roads cut right through some basins. The natural curves and undulations of the landscape morphed into ever flatter stretches and industrial right angles. Cotton, sorghum, and corn stretched fence line to fence line, creating the geometry-textbook patterns we now associate with farmland, as the pressure to maximize outputs grew. Wendell Berry called this kind of farming the “exploiter” model in *The Unsettling of America*, tying it to the “colonizing” force of industrial capitalism, at whose feet Birkenfeld lays the struggles facing the Panhandle.

For years, Birkenfeld was stationed at a parish serving around a thousand Spanish-speaking farmworkers on the outskirts of nearby Hereford. for. It was not a wealthy parish by any means, he said, but residents had an “energy and openness to doing things.” They wanted to see their entire community flourish, and they were ready to work together with Birkenfeld to see that happen. He and one of the parishioners started El Hormiguero Project, helping families who owned the five-acre lots around the camp to practice small-scale sustainable agriculture—raising goats and chickens.

But the land was changing around them. Jobs and wages, and eventually entire farms, evaporated or shifted to other industries. Water-intensive agriculture gave way to feedlot ranching, which led to industrial meatpacking. As each economy boomed with one imbalance and busted with the next, the communities followed suit. The agricultural county of Castro, where Nazareth is located, lost nearly a third of its population between 1980 and 2020. Meatpacking counties like Moore boomed in the same time frame. Each shift represented a different relationship to the land and the harsh reality that it was yielding less and less for those who depended on it.

The more he understood the ecosystem's dependence on both wet and dry, on a symphony of grasses finding just the right height, the more Birkenfeld realized that the tiny towns of the Panhandle were living on borrowed time. He began to sound less like a parish priest and more like a prophet.

Christian pastors often talk about Old Testament prophets as seers who both foretell the future and "forthtell" God's instructions in the present. Birkenfeld doesn't have much runway left into the future he's been foretelling. The Panhandle isn't *going* dry. The Panhandle is dry. Forthtelling what it will take to restore the plains has become his full-time job.

In 2002, Birkenfeld left the priesthood, married, and joined Ogallala Commons, an organization that offers education programs in land stewardship, workforce development, and sustainable food systems, promoting the idea that groundwater is part of a "commons." The notion is at odds with how Texas law treats it, as a resource subject to what's known as the "rule of capture," which allows landowners to extract as much water from beneath their properties as they wish, regardless of how it affects their neighbors' supplies. The law views water as a private-property right; with a "commons," every person, animal, and plant plays a role in ensuring that everyone has enough.

If the economies of the Ogallala don't embrace that view, Birkenfeld foresees a bleak future.

While he speaks in the poetry and moral imperatives of his spiritual calling, his warnings are supported by science. The southern Panhandle of Texas is not getting less rain than it historically has. Average rainfall has stayed around 20 inches per year since the seventies, delivered in a handful of thunderstorms falling on hot, dry fields. Temperatures have risen, making groundwater harder to hold on to. But even back then, at the height of the Ogallala pumping bonanza, when 6 million acres of the Panhandle were irrigated with cheap groundwater, economists were foretelling the problems to come. By the nineties, dwindling wells had reduced the irrigated acreage by about a third. Changes in irrigation technology stabilized agriculture in the late nineties, but the region's water problems continue to loom.

The great tragedy of the Ogallala Aquifer underneath the Panhandle is that it gives far more liberally than it takes. While karst caves and channels of the Edwards Aquifer distribute captured rainfall from one area to the next efficiently—springs in New Braunfels respond quickly to rainfall in Medina—the Ogallala's recharging is highly local. A big rain in Amarillo doesn't fill up a well in Seminole. So if the ground on top isn't amenable to soaking up water—and much of the Panhandle is not—it's very hard to replace what's taken from underground. The sponge starts to go dry from the top down, the water table sinking lower and lower. Farmers have to drill their wells deeper, and the water becomes more expensive to extract.

That's how playas end up being an integral part of groundwater's tenuous presence in the southern reaches of the High Plains. Using their dried, cracked basins, they bank the water in the land immediately surrounding them. It's not a guaranteed blank check, but it's enough to draw ranchers and farmers deeper into the conversation about sustainability and conservation. In the wetter regions of the Ogallala, a different group of prophetic voices are preaching a similar message, but in a very different wilderness.

As you cross the Niobrara River, in Nebraska, Ogallala groundwater cascades below. The dry basins of the Panhandle are hundreds of miles away,

and here, porous sands allow an unusually large share of rainfall to sink underground and recharge the aquifer. The water that disappears into Nebraska's famous Sandhills eventually reemerges in nearby springs, wetlands, and streams, feeding the region's rivers. Just west of the Norden Bridge over the Niobrara, the falls of the Norden Chute open up where water has carved away the sandstone riverbed—not technically a waterfall, but a powerful cataract in an otherwise gently rolling landscape. Since 1960, the falls have migrated from the eastern end of the narrow channel to the western edge. The force of the water erodes the sandstone beneath it with startling speed, geologically speaking. What happens in the next two decades or so is anyone's guess, said Chris Helzer, director of science and stewardship for the Nature Conservancy in Nebraska. It's possible the stunning feature could vanish once it hits the point where the river widens, which at its current pace would be in around twenty years.

For now, the gushing falls and green hills are the picture of plenty, the kind of landscape one might imagine sitting atop the largest aquifer in the nation. But none of this abundance will save the Panhandle. If a raindrop falling in northern Nebraska were to make it all the way to Texas via the aquifer, it would do so at a rate of one foot per day, according to the U.S. Geological Survey. Ten thousand years later, it might be pumped out in Nazareth. But most raindrops won't make it that far. Nearly all of what falls on the Sandhills will bubble up into springs or mist the ground from the skeletal sprinklers of a center-pivot irrigation system on the acres and acres of farmland between there and here—almost one-third of all irrigated farmland in the United States sits on the High Plains.

And yet, the keepers of the Nebraskan plains don't assume their landscape is secure. In fact, they sound remarkably similar to Birkenfeld. "It's hard to get away from the idea that water is a commodity," Helzer said. But as they watch the plains in Kansas and Texas struggle for water, he said, ranchers in Nebraska are seeing themselves, their cattle, their grass, and the water they use as part of a balance they don't want to tip. It's his job to help them figure out how to maintain it. We parked the truck in the middle of the Niobrara Valley Preserve's bison herd—a few take notice of us, but only casually—and

discuss the roles of grazing, controlled burns, and other human activity in preserving a healthy prairie.

Many conservationists insist that the best thing humans can do for nature is to completely retreat, to give it back to itself. When left alone, plants and wildlife will take back the land, Helzer said, but that can look like catastrophic change for the two-thirds of the world's ecosystems that have adapted to human activity. It is not always a return to Eden, he said. "We've made some terrible decisions, but that doesn't mean we just back away." Even Eden had a gardener.

Just as Birkenfeld and Dotson are asking landowners to trust the cracks in the clay, Helzer and his colleagues are asking Nebraskan landowners to trust that short grasses will spring up after a fire burn, and that the crop stubble left unharvested will protect the soil for future seasons. This sounds dangerously unproductive when the conventional wisdom for the last hundred years has been to take whatever you can in the boom to save you in the bust.



The falls of the Norden Chute on the Niobrara River in the Nebraska Sandhills are slowly moving westward.
Reid Bader



Chris Helzer holding a mottled sand grasshopper in the Niobrara Valley in the Nebraska Sandhills.
Reid Bader

As we walked, Helzer's hand shot out and snatched a grasshopper from its perch. At rest, its mottled, gritty body appeared to be made of the sand we were standing in. When startled, its banded black-and-white wings looked almost like those of a butterfly. Its adaptation allows it to live long enough to graze alongside the bison before being picked off by one of the prairie birds swooping nearby. An entire landscape interlocked, feeding and being fed, taking only what it needs and leaving each new cycle as camouflaged and agile as the last.

If, as Berry argues, we don't see how we are a part of that cycle, "then we live in a deathly sleep, and such efforts as we may make to preserve the greater life will be inept and even destructive." Berry died the week after I returned from Nazareth, his long life spent warning of the dangers of viewing the land

as an economic unit—something we farm, mine, graze, and pump for all it's worth. What took about forty years to decimate during the height of late-twentieth-century irrigated farming, Birkenfeld estimates, will take another forty years to revive, assuming the playa restoration and other sustainable agriculture practices continue to gain steam. An eighty-year cycle, about the length of time it will take the Norden Chute to complete its traverse of the Niobrara. One human lifetime.