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242

Circle of Blue · A Pause For Energy Developers Threatening Texas Big Bend Region

Opportunity to Protect A Way of Life Confronted by Oil and Clean Energy

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By Keith Schneider
Circle of Blue

MARFA, Tx. – Three years ago the U.S. Department of Agriculture counted 80,000 head of cattle grazing the sea of golden grass across Brewster, Presidio, and Jeff Davis counties in dry, open and captivating West Texas. That's more

than four times the number of people living in a region as big as Maryland.

It's mesmerizing country, for sure. The steep cliffs and tight draws in Big Bend National Park anchor the southern border along the Rio Grande. At dawn, chaparral stretches to the horizon, and the two-lane highways are so empty that people wave when they pass. At sunset, clouds flare orange and purple and the cool air reveals mountains that soar to 8,000 feet. The night sky is so dark and ablaze with stars that one of the world's most famous observatories was opened in the Davis Mountains 91 years ago.

It's hard country, too. Household incomes are low. Droughts are an episodic hazard. Ranching is a tough business. The tourist trade is a six-month deal. The three counties, according to the U.S. Census Bureau, lost residents over the last decade. Well over a third of the people living in Jeff Davis are over 65.

So few people, in fact, have gained a foothold that this part of West Texas rivals Alaska for fewest people per square mile. And that is just the way most of the Big Bend region's nearly 19,000 residents want it to stay.

"People live here for a reason," said Louis A. Harveson, the director of the Borderlands Research Institute at Sul Ross University in Alpine. "Our environment, our viewsheds. That's huge. They define us."

Dr. Harveson, a prominent member of the Sul Ross faculty, expressed that sentiment with authentic urgency in January. At the start of 2020 Texas was booming, in large part due to the advance of oil and gas wells, tank batteries, pipelines, immense wind and solar stations, high voltage transmission lines, and prodigious water supply and wastewater disposal challenges that defined the Permian Basin as the most productive energy production region in the world.

Big Bend area residents were anxious about "energy sprawl" in the Permian Basin crossing the northern boundaries of the three counties and spreading into their rugged region.

Just a few months later, the imperative threat of runaway energy development in west Texas had subsided. First was the

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effect of falling prices for oil and gas and curbs on new drilling caused in part by surplus Permian production.

Second was the Covid-19 pandemic, which produced more than 230 infections and two deaths in the Big Bend counties, and also blew a big hole in the national and global transportation sector. Demand for oil in the U.S. fell by almost 25 percent. Drilling for oil and gas slowed dramatically.

Marfa, Texas, the Presidio County seat, is set amid thousands of square miles of desert and rangeland. A distinctive art scene has encouraged cultural tourism and rising real estate values that have priced some local residents out of the market. Photo © Brian Lehmann / Circle of Blue

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A Lull. How Long?

The question asked in Brewster, Presidio, and Jeff Davis counties, as in much of the rest of Texas, is how long that could last? Before the double body blows of over-production and disease Big Bend residents were afraid for the Chihuahuan Desert, the region's ranching heritage, and for the neighborly culture of the small towns.

Though the three counties had been wild, magnificent, and remote for centuries, residents were well aware that the essential character of their region was not invincible. Recognizing the threat, they wanted to be prepared for new industrial development. They needed a plan.

Last year, the Austin-based Cynthia and George Mitchell Foundation, which supported this reporting project, reached out to the Borderlands Research Institute and The Nature Conservancy to launch Respect Big Bend, a project to generate a civic dialogue that eases the confrontation between development and the environment, and convince developers to preserve the region's natural heritage. With the production surplus, low energy prices, and the pressure the pandemic is putting on energy markets, the Big Bend region has more time to think through its development plan.

Outside Marfa, Texas a fake Prada store embodies the town's critique of pop art and consumerism. Manny Perez, 78, vacuums the display. Photo © Brian Lehmann / Circle of Blue

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Response to Energy Sprawl

It's not necessarily either/or. Rather it's a thoughtful, patient exercise to convince interests in and outside the Big Bend region to achieve a unique goal in Texas: Tilting the balance between shareholders and stakeholders more favorably to those intent on preserving what is sacred in this rugged territory.

It's been done before here. Big Bend National Park is a signature example of how the United States tilted the balance to stakeholders. The raucous energy sprawl north of Big Bend, though, is emblematic of how the balance typically shifts mightily to the shareholders.

The challenge for the Big Bend region is how to elevate stakeholder values to compete with shareholder values in a state whose regulatory infrastructure and economic base is so heavily tilted to energy development.

The multi-year Respect Big Bend project relies on public opinion to decide what the region really values and looks to digital mapping to identify the specific places where those values have a chance of being preserved. Earlier this year, after months of conversation and public meetings, the project issued its long-awaited roster of geographic and cultural

values that people in the three counties are desperate to secure. The values look almost identical to the place. People want big ranches and their way of life to persist. They want grasslands, viewsheds, dark skies, remote quiet, wildlife corridors, and hunting to be readily accessible.

In essence, the values expressed by Big Bend residents are a plea to preserve the last wild mythic place in Texas. “Most of the land here is privately owned,” said Dr. Harveson. “We have to work with the ranchers and landowners. Our goal is to keep the region pretty much like it is. It’s not impossible. Big Bend is a place that everybody in Texas holds dear. It’s an iconic part of the state. It’s our vacation ground. It’s not just the locals that cherish this area.”

It’s a devilishly difficult project. Drilling permits are simple to gain from the Texas Railroad Commission. Pipeline companies use eminent domain to direct their projects almost anywhere they want. Wind and solar developers don’t need state permits to start construction. Water use in much of the Permian basin is unregulated, and wastewater disposal permits are easy to obtain.

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Ranching continues to be a way of life in the Big Bend region. Bodie Means, 68, ropes calves at a small horse arena in Valentine, Texas with his best friend Chuy Navarrete, 50. Water can make or break ranching. Drought during a season typically forces Means to sell his cattle. Photo © Brian Lehmann / Circle of Blue

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One of The Last Wild Places

Until the 21st century “remote” was the single word that most effectively described the three counties of the Big Bend region. Presidio, Jeff Davis and Brewster were so distant from the rest of America, and its landscape so sparsely inhabited, that the region’s history and culture are told in a handful of signature events.

From 1821 to 1836, many centuries after nomadic hunters and gatherers painted figures on the walls of mountain caves, the area was held by Mexico. The 25th Infantry Regiment, the famed all-black Buffalo Soldiers, briefly manned Fort Davis in the late 19th century to protect white settlers from Comanche and Apache raids. Anglo farmers and ranchers began trickling in at the turn of the 20th century.

Sul Ross State University was founded in 1917 to train teachers, turning Alpine, the Brewster County seat, into an arid college town. In 1944, Big Bend National Park was established to conserve over 1,200 square miles of desert habitat for hundreds of species of birds and protect the temple-like canyons carved from ancient limestone.

In the early 1950s a deep drought wrecked farmers and ranchers. In 1955, James Dean, Elizabeth Taylor, and Rock Hudson arrived in Marfa, the Presidio County seat, to film *Giant*, the classic western. In 1976, famed New York artist Donald Judd began buying buildings and land in Marfa to display his minimalist painting and sculpture, an artistic quest that started the transformation of the town of 1,770 souls into a hub of creative ventures and a required stop on art tours of America.

And in the spring of 1997, in a display of the alien personalities such a big land attracts, a militant secessionist named Richard McClaren seized several hostages in the mountains west of Fort Davis. Declaring them prisoners of his militant

Republic of Texas, he holed up with his armed supporters and held state and federal law officers at bay for a week until the siege ended.

In 2020, the three counties still look and feel much as they always have. A land of big sky, wide expanses, and tiny towns. But the word now that succinctly describes the Big Bend region is this: “imperiled.”

The town of Marfa, Texas displays a lot of unique art, like this 1956 James Dean plywood cutout scene based off of the film Giant. Marfa's unique art scene and chic restaurants have created a high end atmosphere bringing jobs and real estate much higher. In turn some locals cannot afford to live there. Photo © Brian Lehmann / Circle of Blue

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Across The Border: Big Trouble

Just beyond the northern boundaries of all three counties lies the infrastructure of the two most powerful energy industries in the country – fossil fuels and electrical generation. Together they form one of the most formidable engines of land transformation that has ever occurred in this part of Texas and in other open spaces in the western United States.

Until this year, the scale and speed of energy development north of the Big Bend region, in a 17-county drilling zone known as the Permian Basin, was immense, intense, and frantic — and looked it.

By day trucks pounded the two-lane highways, hauling pipe and equipment to drilling sites, and loading up raw petroleum from batteries of storage tanks. Plastic pipes lay on the land to supply billions of gallons of freshwater for fracking. Even the large quantities of water that comes to the surface with oil and gas – so-called produced water – was pumped, piped, or hauled to deep wells where wastewater was injected into the earth.

Amid the frenzy, oil field workers clambered about dozens of drilling rigs scattered across dry farm fields that a decade ago produced big crops of cotton, alfalfa, and vegetables. Tiny towns like Cayanosa, Mentone, and Orla virtually disappeared in the daylight onslaught and dust of petroleum and natural gas installations and truck traffic. At night, blinding white flames torch the dark as producers flare natural gas that has nowhere to go but into the atmosphere.

Since fracking began in earnest in 2006, some 87,000 oil and gas wells have been permitted in the Texas Permian basin, according to state figures. Reeves County, north of

It's not only fossil fuels that were booming. Renewable energy developers also moved into the region, displaying the same zeal for

Jeff Davis, was the largest gas producer and 4th largest oil producer in Texas. Next door, Pecos County was in the top 15 for both. The counties north of the Big Bend region, in effect, were the perfect embodiment of the all-of-the-above strategy that has produced an era of fossil energy dominance that has not existed in the United States since the end of World War Two.

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It's not only fossil fuels that were booming. Renewable energy developers also moved into the region, displaying the same zeal for constructing big wind and solar generating stations. They came with high voltage transmission lines that carried the power to Texas cities.

Pecos County is now the largest renewable energy generator in the state. Nearly 700 wind turbines capable of generating 675 megawatts of electricity spin in the county. Six big solar stations, which also have a capacity of 675 megawatts, have been built since 2017.

More solar generation is on the way, say county authorities. Six plants are under construction or proposed. By 2022, Pecos County will have an installed capacity of almost 2,200 megawatts of renewable electricity, equivalent to a nuclear plant with two reactors, and more than all but six other states. The county collects \$80,000 to \$250,000 annually from each station in taxes and fees.

"We are glad to have them," said Remie A. Ramos, the executive director of the Economic Development Corporation in Fort Stockton, the Pecos County seat. "Most of the solar plants are in the northeastern part of the county. Out of sight. Out of mind."

That same assessment does not characterize public sentiment in the three Big Bend counties to the south. It hasn't for a decade now. In 2010, the first whiff of what locals here have come to call "energy sprawl" blew through the region and then vanished. Tessera Power, a London-based company with American headquarters in Houston, proposed to build a big solar station two miles east of Marfa. The idea prompted pushback from residents who insisted they supported clean energy but hated the expanse of the proposed plant. The developers left town.

Then in 2015, other energy developers showed up at the door. Solaire Holman, a French company, announced plans to

level 360 acres of rangeland to build a 50-megawatt solar station in Brewster County, 12 miles south of Alpine. Energy Transfer Partners filed for permission with the Federal Energy Regulatory Commission to slip its 148-mile Trans Pecos pipeline under the Rio Grande to ship natural gas from the Permian to Mexico. Both installations began service in 2017.

The same year, Helios Operating LLC, a Houston-based wildcatter, gained permits to drill two oil wells in the mountains of northwest Presidio County. Last year the company said the wells produced marketable quantities of oil. In February, the Presidio County Water Conservation Board awarded Helios a permit to draw 10 acre-feet of water from the ground – about 3.3 million gallons – to frack the wells.

The classic western “Giant” was filmed in Marfa in the 1950s. The landscape outside town today looks much like it did when James Dean starred in the film. Photo © Brian Lehmann / Circle of Blue

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New Response Strategy Needed

Big Bend residents went after the Trans Pecos pipeline, forming the Big Bend Conservation Alliance, a public interest non-profit, and taking their protests to the Legislature, and the Federal Energy Regulatory Commission. They argued that the pipeline corridor amounted to an unsightly gash that would harm wildlife. And they complained about the mismatch that occurs when pipeline companies use eminent domain to do what they like and go where they want across private property. The protest inspired a documentary, Trans Pecos: The Story of Stolen Land and the Loss of America's Last Frontier, which premiered in Austin in February.

The opposition had no effect on the construction or operation of the pipeline. It did, however, change how activists view their strategy. "I came out of it thinking what do we do now?" said Trey Gerfers, a professional translator who's lived in Marfa since 2013 and chaired the Conservation Alliance. "Everybody has been awakened from the myth of the remoteness of the Big Bend region. That it's going to protect us forever and ever. Nothing is ever going to change here. That fantasy went away. The landowners were chastened. They're the king of their castle. But there's a bigger king out there. He wants your castle and he's going to take it."

"The experience with the pipeline was a constant game of catch up," Gerfers added. "My thought is why don't we get ready for the next challenge."

Dr. Harveson and a group of residents and other faculty were thinking the same thing when the Mitchell Foundation

approached them and formed Respect Big Bend last year to better understand what needs protection and begin developing tools to get it done.

The project has time. Late last year the Apache Corporation announced it was curtailing development of its Alpine High field because of the glut of natural gas and the lowest prices since before World War Two. Four years ago the Houston-based company leased 346,000 acres in Pecos and Reeves counties, just over the border from Brewster and Jeff Davis counties, and planned to drill and frack 5,000 natural gas wells.

In another break for the Big Bend region the Texas Bureau of Economic Geology, a state science agency, studied the rock formations underlying the three counties and concluded they are not suitable for oil and gas development or fracking.

“You never say when with big energy,” said Trey Gerfers. “But it looks like we are in a much better position than we were.”

There’s nothing terribly unusual, of course, about rural regions anxious to defy the influences of new development. To some extent it’s the central economic and ecological confrontation in Texas and America over the last 70 years. Any veteran activist knows that preparing a response to the next development technology capable of extracting resources once thought unrecoverable is essential.

For his part, Trey Gerfers was appointed chairman of the Presidio County Underground Water Conservation District in 2018 to work on what he calls the next big issue: water supply and use. It’s a daunting challenge. Every frack job for oil and gas wells consumes as much as 400,000 barrels of water. That’s over 16 million gallons. The wells bring back to the surface as much as seven to ten times as much produced water as oil and gas. Energy companies now get rid of most of the wastewater by injecting it under high pressure into deep wells. There are 596 in Pecos County and 278 more in Reeves County, according to state records.

Water supply and disposal is a \$12 billion annual business in the Permian. Water supply and disposal costs companies \$7 to \$9 for every barrel of oil they produce, according to industry figures. The Texas Legislature last year approved a new law that could reduce the expense by allowing wastewater from the Permian Basin to be treated and disposed in west Texas rivers. It amounts to one of the most serious industrial water treatment and disposal challenges on Earth.

The Presidio County Underground Water Conservation District and the two other Big Bend counties are avoiding that confrontation for the time being. Fracking is a considerably more distant risk. The Presidio water conservation district, along with the water conservation districts in Jeff Davis and Brewster counties also report that groundwater levels are high and supplies are ample.

“Trying to change how drilling takes place here? It’s not going to happen,” Gerfers said. “But we can understand it better. We can take steps to make sure we have enough water and know where it’s going. Let’s start talking about what we can do to lower costs, to make things safer, to make things better. We need to do something that’s more inclusive, that’s more positive. It looks like we have time.”

Water, Texas is a five-part series on the consequences of the mismatch between runaway development and tightening constraints on the supply and quality of fresh water in Texas.

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