

Fracking adjacent to Theodore Roosevelt National Park is changing the landscape.

And a whole lot more.

When Theodore Roosevelt first visited the Dakota Territory in 1883 to hunt bison, he saw wild, rugged vistas and fell in love with the endless prairie landscapes. He returned the following year, seeking solace after the deaths of his mother and wife, and built Elkhorn Ranch on the Little Missouri River—what would later be known as his “home ranch.” His love of this expansive, pristine country would strongly influence his conservation efforts as the 26th president of the United States.

If Roosevelt were on that land today—the badlands of western North Dakota—he would discover a 70,000-acre national park named in his memory. Here, at Theodore Roosevelt National Park, Roosevelt would find nearly 100 miles of trails, backcountry camping, kayaking, and horseback riding between the North and South Units and much smaller Elkhorn Ranch in between. He could watch bison, wild horses, elk, mule deer, bighorn sheep, and countless species of birds. Along a road that passes through three prairie dog towns, he might find coyotes or badgers at dawn.

In many ways, Roosevelt would find that little had changed since the late 1800s—he could still count on this land when he yearned for solitude or sought unspoiled habitats. But thanks to the biggest oil and gas development boom in the country, he would also find that the park sits dangerously close to a construction site large enough to defy comprehension: a latticework of dirt roads, a round-the-clock procession of trucks, and a landscape of pumpjacks moving up and down like giant donkey heads dipping into feed bags. He would see massive flares that light up the night sky like hov-



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BY MELANIE D.G. KAPLAN
PHOTOS BY MATTHEW TURLEY



MORE THAN 100 YEARS after Teddy Roosevelt first explored the Dakota Territory, the landscape that now bears his name is seeing dramatic changes.



ALTHOUGH THE NATIONAL PARK ITSELF APPEARS NEARLY PRISTINE, development on the edges can make it difficult to avoid the sights and sounds of pumpjacks, construction equipment, and natural-gas flaring.



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ering campfires, and he would notice such surges in population and shortages of basic services that one wouldn't hesitate to compare it to the Gold Rush.

Less obvious than giant oil rigs and perpetual dust clouds are perils to the environment. As the oil boom continues, concern is mounting for the park and its surrounding lands. Anyone who has enjoyed a truly black sky pierced by pinholes of twinkling light or escaped to a wilderness yielding exquisite silence will mourn the loss of both in western North Dakota. As threats to the region's delicate ecosystem become clear, more people are asking: How can we best safeguard this land as the oil and gas boom continues?

"I'm very concerned about what it will look like in a few decades," says Theodore Roosevelt National Park Superintendent Valerie Naylor, of the land just outside the park. "There is a lot of development happening very quickly. The whole environment and culture of western North Dakota has changed."

Those who enjoy the state's natural beauty voice widespread concern about the future of this region. Jan Swenson, executive director of the Badlands Conservation Alliance, believes it's crucial to preserve as many wild lands as possible. "This development process is expected to last as long as five generations," she says. "None of us who are around now will be here in five generations to remember what it once was. As pervasive as the oil industry is, our wildlife is in big trouble."

EVERYTHING "ASKEW OUT IN OIL COUNTRY"

A few years after Theodore Roosevelt National Memorial Park was established in 1947, geologists discovered oil in the Bakken shale formation, which covers parts of Montana, North Dakota, and Saskatchewan and Manitoba, Canada. Roughly the size of West Virginia, the Bakken oil field is the largest continuous oil field in the world. Although exploration on a much smaller scale occurred in the 1950s, it took more

than half a century before the resounding boom of the oil industry returned. Since 2006, the introduction of hydraulic fracturing (or "fracking") technology has made crude oil production economically viable here. The production has increased exponentially since 2009. (Natural gas is also produced, but without the infrastructure to capture it, and because it is far less valuable for the time being, about one-third of it is flared off the oil wells into the atmosphere.) Although this boom has offered numerous benefits to our economy—oil extraction and gross production tax revenues for 2012 were \$2.06 billion—many are calling attention to the boom's impacts on special places like the park in the middle of it all.

Fracking—which involves injecting large quantities of water, sand, and chemicals under high pressure to crack the shale and bring oil to the surface—has allowed drilling companies to reach areas they couldn't with traditional vertical drilling. New access has led to rapidly increased production, and consequently,

the region is now struggling with air pollution, water pollution, habitat fragmentation, heavy traffic, impaired views, and a host of social impacts. As many describe it, a state once known for its sparse population and ranching is now a giant oil industry playground.

The United States Geological Service estimates that the Bakken oil field could produce up to 11 billion barrels of oil, and the state is nearing production of one million barrels per day. New wells are drilled every month, each one requiring between several hundred and 2,000 truck trips to haul material and supplies. The boom has drastically lowered the amount of oil the United States currently imports, but the frenzy to build infrastructure to support the production has far outpaced growth in the towns. The development has occurred so quickly that the social and environmental costs are considerable.

The epicenter of development is Williston, a once sleepy town in the northwest part of North Dakota, just 56 miles from the park. According to the U.S. Census, the town's population increased more than 25 percent between 2010 and 2012, and it will continue to grow with oil exploration and production. This growth has brought with it an increase in

180-200 TONS

Amount of trash deposited in McKenzie County Landfill just north of the park each day, roughly twice what the site was designed for; 90 percent of the refuse is generated by the oil industry.

7,000

Number of active wells in the Bakken formation today

60,000

Expected number of active wells in Bakken in 20 years

45

Number of years a typical Bakken well is expected to produce oil

\$2,394

Average rental cost of a 700-square-foot, one-bedroom apartment in Williston, North Dakota

arrests, criminal activity, and vehicle crashes, and a greater need for law enforcement, schools, housing, and health care. Earlier this year, Williston topped the list of most expensive apartment rentals in the country.

Anecdotal evidence is equally harrowing. It's not unusual to hear about long-time residents locking their homes and cars for the first time; oil companies illegally dumping hundreds of radioactive filter socks (nets used to filter wastewater at fracking sites); and lines at gas stations, grocery stores, and restaurants. And although oil activity remains outside the park, industry development is marching south, ever-closer to the park's borders.

"Our biggest problem with energy development here is that we're moving way too fast without enough knowledge and planning," says Keith Trego, executive director of North Dakota Natural Resources Trust. "We're making a lot of mistakes that could be minimized if we did this with more common sense." Trego says most North Dakotans would not want to give up the extraordinary amount of money oil has generated for the state, but universally, residents want things to slow down.

"Every element of life is askew out in oil country," he says. "The roads are destroyed, the countryside is covered with dust, you can't pick up the paper without reading about an oil spill or frack water being dumped somewhere illegally. It's become a free-for-all industrial zone."

Many unknowns remain—the long-term effects and environmental risks of fracking as an energy solution, and the impacts on our natural resources. But it's clear that Big Oil is moving full steam ahead, and that has already diminished the experience for visitors to Theodore Roosevelt National Park. The fear is that it will leave the environment changed forever.

SEEING FLARES, HEARING TRAFFIC

Although the park is protected from oil drilling, the land just outside each unit's borders—all quite visible from the park—is at great risk. More than perhaps any other national park in the country, Theodore Roosevelt has felt the repercussions from the oil industry.

"The point of wilderness is to remove yourself from the impact of human settlement," says Bill Whitworth, the park's chief of resource management, "and the oil and gas industry has taken that away."

Park staff and advocates say they are not opposed to drilling in North Dakota, but the consensus is that the industry has been progressing recklessly, without a care for what suffers in its wake. "We just want it to be done with the right oversight and with some concern for the environment," Whitworth says. "Responsible development is what we're asking for."

Park visitors drive through increasingly industrialized areas to access the park and often have trouble finding lodging. Oil rigs

are visible from the park, and many visitors—who once heard only owls and coyotes at night—now hear the rumble of 18-wheelers. Not long ago, visitors would gaze toward the horizon's boundless natural views; today, from the South Unit, they see a couple dozen natural gas flares. When they look skyward, they find a much depleted night sky, thanks to the flares and ambient light from drill pads, which have altered what was once among the darkest skies in the country.

Animals that move beyond park boundaries, including deer and waterfowl, are disturbed by the sounds of oil production, and the growing number of well pads, power lines, and railroads fragment habitat. Last fall, a bison was fatally shot in the park's North Unit, and Whitworth has seen more criminal activity in the park,



MATTHEW STAYER/BLDMBERG VIA GETTY IMAGES

AN OIL BOOM IN THE BAKKEN

SHALE FORMATION has brought a dramatic increase in traffic and a shortage of accommodations for park staff and visitors.

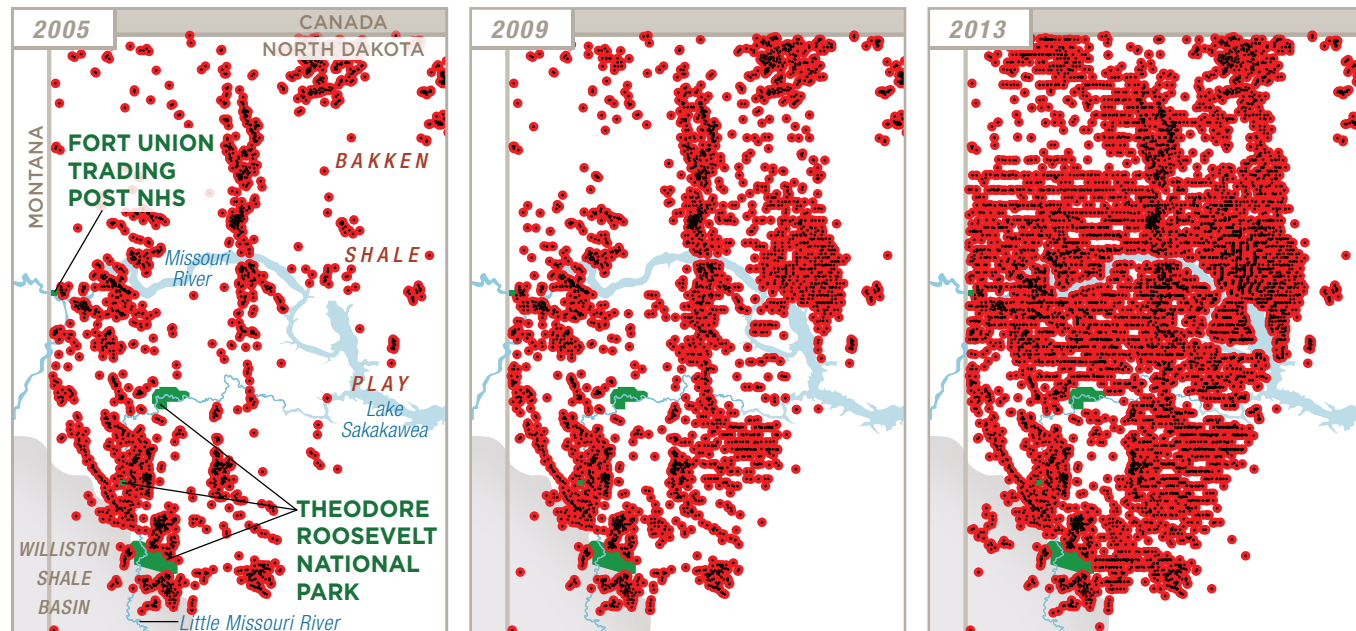
from speeding to graffiti. Even simple day-to-day tasks have become challenging. Hiring a contractor to repair an air conditioner or trim trees, for example, is increasingly difficult and expensive, because workers are in such short

supply. The cost of doing business, Whitworth says, has skyrocketed.

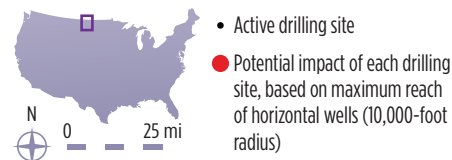
Furthermore, the park has lost potential employees because they can't find affordable housing. Fort Union Trading Post National Historic Site, 65 miles to the west (and just 25 miles from Williston), has vacancies it is unable to fill for the same reason. Fewer students visit the reconstructed fort, because school groups have a hard time competing with oil fields for bus drivers.

Superintendent Naylor says the park is part of a larger ecosystem, so what happens outside its boundaries affects everything inside. "This park, like all national parks, is a unique example of something that's not found anywhere else," she says. "We have one of the best wildlife-viewing parks in the country. Species like deer need to move about. They can't just walk through a sea of oil wells."

Naylor's time is increasingly consumed with defending against the barrage of new wells proposed by oil companies. In an effort to



Source: North Dakota Industrial Commission Department of Mineral Resources



A MAP REVEALS THE INCREDIBLE GROWTH of the oil industry following the introduction of new drilling techniques adopted over the last ten years.



A VISITOR taking in the view at Little Missouri River Bend Overlook.

protect the integrity of the park, she monitors dockets for North Dakota Industrial Commission hearings so she can testify about developments particularly close to the park and identify ways of working with the industry to mitigate or eliminate impact. She has found some success working directly with the companies, persuading them, for example, to move a well farther from the park or use super-quiet, hospital-grade generators to limit noise.

New well proposals are especially troublesome in the Elkhorn Ranch Unit, which is considered the park's most significant historic area. Known as the "cradle of conservation" because of the ways it influenced Roosevelt's environmental ethic, Elkhorn Ranch now faces proposals for a new gravel pit on U.S. Forest Service land and an industrial bridge across the Little Missouri River, within sight of the original ranch house location. (One state legislator compared this to "running an oil road past Monticello.") Concern for the future of this unit of the park prompted the National Trust for Historic Preservation to list Elkhorn Ranch as one of the country's most endangered historic sites in 2012. The U.S. Forest Service, which owns and manages portions of the original ranchlands across the river from Roosevelt's ranch site, recently secured Elkhorn's designation on the National Register of Historic Places, which ensures its protection from development.

Naylor says she would like the state to be more involved in protecting these lands, with regulatory standards that would limit development and provide consistency. "For now," she says, "we have to keep dealing with this on a case-by-case basis."

AN EXTRAORDINARY PLACE?

Ongoing studies at Theodore Roosevelt National Park are revealing the oil industry's impact on the night sky, air and water quality, wildlife, soundscapes, and views. A study by Colorado State University and the National Park Service found increased air pollution, creating a dull haze and affecting long-distance visibility at the park. And this summer, the National Parks Conservation Association and the FracTracker Alliance will produce an interactive

map that shows the most tangible impacts of oil production in and around the park—from the sounds of flaring (which have been likened to a jet engine) to pictures of roadkill and "No Vacancy" signs—for those who aren't there to witness it.

Because most residents of North Dakota live in the eastern part of the state near the Minnesota border, they can be largely disconnected from the daily disruptions experienced five hours to the west. And while some state lawmakers are fighting for more protection and regulation, any such support is dwarfed by the interests of the oil industry.

Theodore Roosevelt's descendants would also like to see regulations that protect the area around the park. Winthrop Roosevelt, Teddy's great-great-grandson, is most concerned about long-term effects.

"Destroying the areas directly around national parks is probably not the best idea," he says. "Just like people don't want to live right next to chemical plants, national parks [shouldn't be] next to industrial sites that might cause ecological damage."

Last year, state attorney general Wayne Stenehjem proposed designating a short list of "extraordinary places" in the state, in an attempt to officially limit the oil-drilling permits around unique sites, including the park. The proposal was watered down by political pressure from the oil industry, which was heartbreaking for park advocates. But despite calling the state's decision a missed opportunity, the conservation community heralded Stenehjem's move as a watershed moment.

"He still did the state a huge favor by bringing the conversation to the forefront," says the Badlands Conservation Alliance's Swenson. "But we were very disappointed about the outcome. So we start again. There is no choice but to keep on going. If you love the place, you keep on going."

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