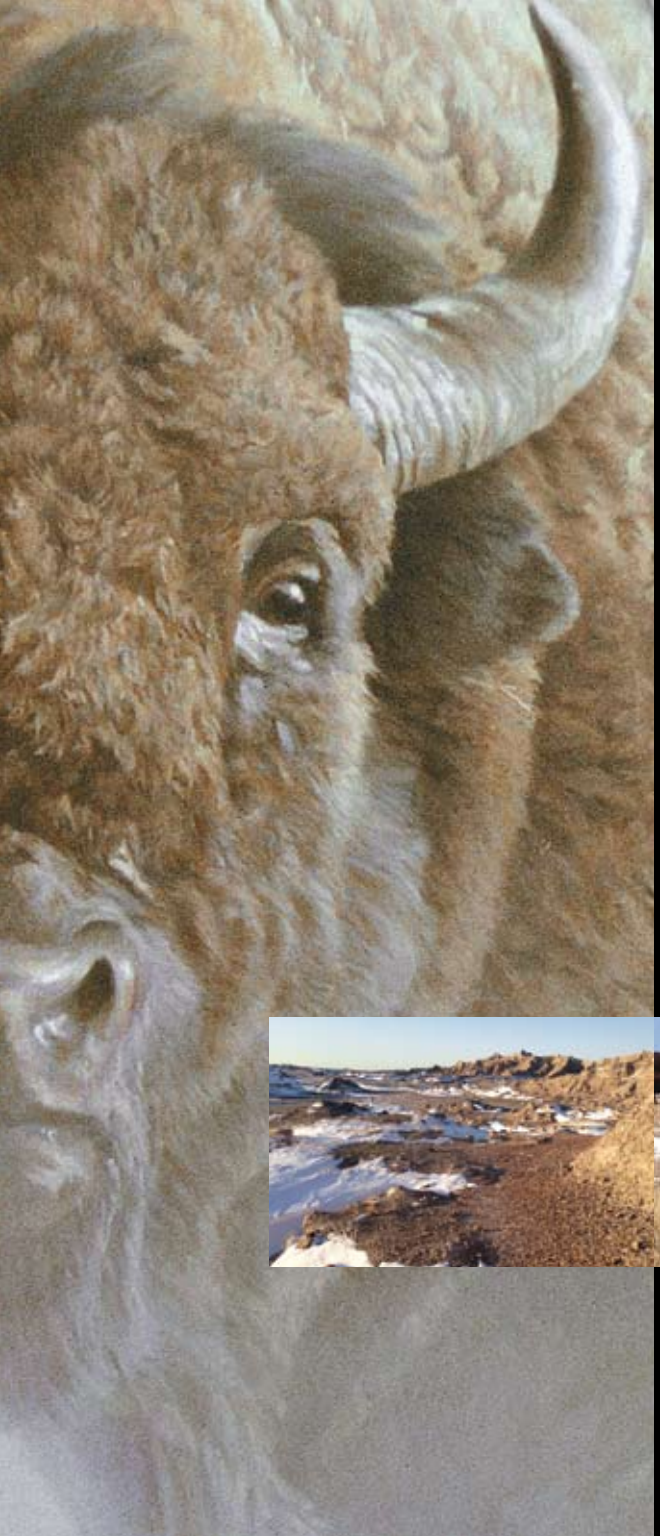

PERC Case Studies

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Bringing Bison Back to the Badlands

By Todd Graham and Jeremy Gingerich

Edited by Laura E. Huggins

"Buffalo have for many thousands of years provided our people with food, shelter, and clothing: We depend on them for our life," as written in the Oglala Sioux Tribe's old Buffalo Management Plan. Bison, or buffalo as the Sioux call them, once sustained the tribe. In the near future, they may support the community once again.

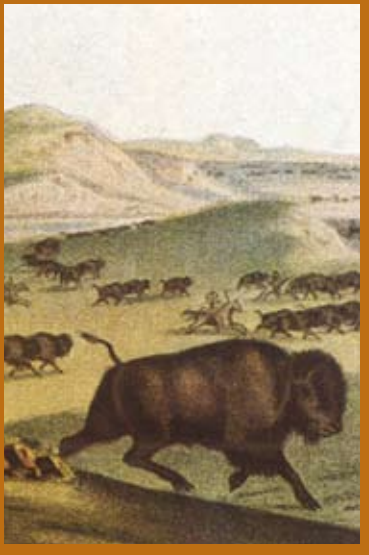
In what may be a huge opportunity for the Oglala Sioux, a Tribal National Park is emerging in South Dakota—the first of its kind. This area, known locally as the South Unit, is adjacent to Badlands National Park and consists of 133,000 acres of open grasslands, rolling hills, and steep-sided badlands walls.

The South Unit lies within the Pine Ridge Reservation, home of the Oglala Sioux Tribe. This area was condemned by the federal government for a bombing range during World War II. In 1968, Congress conveyed the land back to the tribe with the stipulation that the land be held in trust and administered by the National Park Service (NPS). In 2012, the *South Unit Final General Management Plan/Environmental Impact Statement* was completed by the NPS and the tribe. The plan recommended that Congress designate the South Unit as a Tribal National Park. Special provisions for preferential tribal hiring and for tribal culture and customs were included. Further, the tribe could own and run buffalo on the new park.

Formation of the park would allow the Oglala Sioux and the NPS to pursue jointly held values. The

FIRST TRIBAL NATIONAL PARK

The Oglala Sioux and the National Park Service are drafting legislation to create the first Tribal National Park—giving the tribe the right to manage and operate the lands—in an effort to bring bison back to the grasslands where they roamed long before human settlement.



tribe seeks economic development opportunities, job creation, and a renewed emphasis on their heritage—particularly a recognition of the importance of buffalo. The Park Service wants another large buffalo herd in the Great Plains, which would advance the Department of the Interior's *Bison Conservation Initiative*. Both the tribe and the NPS seek a herd of more than 1,000 buffalo, which the South Unit's vast landscape is capable of handling. In addition, various conservation organizations, including the World Wildlife Fund, which initiated and funded the feasibility study for reintroducing buffalo to the South Unit, could advance their bison conservation objectives with this effort. The thought of a huge herd roaming these vast expanses is compelling, regardless of who wants to see it happen.

NEW GROUND FOR BUFFALO

Ranch Advisory Partners, our private consulting company, was hired to create the buffalo feasibility study, including both the biological and economic factors. Our first

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objective was to better understand the landscape. When visiting the South Unit, we were struck by the thought that whoever coined the term "badlands" got it right: Rugged walls of soil and rock that soar 300 feet up from the valley floor are in constant battle with the elements as they erode downward. Everywhere, soils drip and slide in an expanse of vegetation-less ooze. Silty clay soils in the valley floors hold water in acre-sized pools of sediment-laden muck.

After crossing yet another badlands wall, however, we were surprised to see the valley suddenly open into a grass-filled expanse stretching for miles. These productive grasslands are what gave the Great Plains its name, and the South Unit contains thousands of such acres. Summer rains produce robust grass growth, and winter winds push snow away, leaving abundant grazing opportunities year round. Climate and soils have combined to create lush habitat for elk, bighorn sheep, turkey, and swift fox. It was in these grasslands that we began to see real opportunity—this is buffalo country.

Further analysis of the soils and vegetative data revealed that the landscape would indeed support a large herd of buffalo. And because the tribe would own the buffalo and could hunt or sell them, their ability to generate revenue could increase. Tourism, concessions, and lodging opportunities might also come into play. The Oglala Sioux Tribe finds itself on the cusp of a large-scale conservation and tourism engine, one that may provide badly needed economic activity and jobs; Pine Ridge Reservation's per capita income is below $8,000 and unemployment currently sits at 80 percent.

BASIC FINANCE

Like so many American Indians, the Oglala Sioux have a strong connection to buffalo: They pray for them, hunt and eat them, and make tools and art from their byproducts. They also want buffalo to roam with minimal human handling in designated pastures. In an effort to maintain their connection to buffalo, the tribe provides meat, hides, skulls, and offal to members from an existing herd of 650 animals.

The buffalo roaming Pine Ridge are owned collectively, and receiving buffalo products at low or no cost has been part of the culture. In fact, the tribe gives away roughly 50 percent of its total buffalo output annually, causing a conflict between cultural uses of buffalo and basic finances. The cost of running buffalo greatly exceeds revenue from sales and hunts. Buffalo cannot simply be turned loose and then hunted when meat is needed; they must be fenced, cared for, vaccinated, and sorted. Managing buffalo, even when done as minimally as possible, is still running a business.

Part of Ranch Advisory's challenge, which was laid out in the contract, was to find a way to maintain the tribe's cultural con-

Climate and soils have combined to create lush habitat for swift fox, bighorn sheep, elk, and turkey.

nection to buffalo, while shoring up the buffalo program's finances. The task would not be easy.

IMPROVING PERFORMANCE

After getting a better sense of the unique landscape and current finances our next task was addressing the tribe's historic "hands-off" approach to management. The reality is that the tribe requires a higher-producing herd and more intensive management. Research conducted by the University of Nebraska revealed that many buffalo were infertile, and the herd carried a high parasite load. These two findings alone greatly reduced the potential herd size and its financial performance. Better herd monitoring is needed, along with culling infertile animals and aggressive deworming. Fortunately, because buffalo are handled only once per year at "fall works," record keeping, culling, and deworming can be performed with minimal human intervention. These simple actions should greatly improve the herd's performance.

Other challenges will require more intensive management. Research shows that buffalo are infected by parasites when they repeatedly graze the same areas. Reducing parasite load requires adopting a modern-day grazing strategy with additional pastures, allowing the herd to move from one grazing area to the next. With this approach, buffalo would not be forced to graze atop their own excrement, thus leaving soil-borne parasites behind when the buffalo graze fresh forage elsewhere. New pasture areas will also help improve performance, as measured by pregnancy rates, weaning weights, and the developmental growth of bulls. Further, this method will create better habitat for the elk, turkey, and songbirds living on the same land. Finally, this new approach represents an opportunity to increase stocking rates by more than 30 percent—a major increase in future revenue. Each of these factors—increased pregnancy rates, more saleable animals, larger animals in less time—could all be achieved with minimal human interven-

Jeremy Gingerich (left) working on tribal buffalo management plan.

The take-home lesson for the tribe is that the balance of culture and finance is first defined through the health of the land and buffalo.

tion. Thus, a balance between herd performance and minimal handling could still be maintained.

EVOLVING CULTURE

The real conundrum is overcoming the tribe's cultural tradition of donating so much of their buffalo meat. Fortunately, high demand and a high price for buffalo provide two solutions. The first solution is based on the realization that *all* ceremonial meat is cubed for stewing. This means the prime cuts such as ribeyes, tenderloins, and sirloins could be sold on the open market, and the remainder of a carcass could be cubed and provided for tribal ceremonies, as is customary. Because the tribe is now acting as a purveyor of top buffalo meat, it has a financial incentive to produce the best animals possible to command the best prices. Simultaneously, it has an incentive to be an outstanding steward of the land to generate the best meat.

The second solution involves the Oglala Sioux's existing sharecropper program. An individual sharecropper can receive up to 23 buffalo cows and two bulls to manage, while the tribe maintains ownership of those animals. Sharecroppers are required to deliver those animals back to the tribe in five years, and can keep whatever calves they produce. The tribe, however, doesn't necessarily want those animals back due to potential disease and genetic issues. Further, a sharecropper can fall into a difficult cash position with this arrangement because he or she may receive infertile cows that raise no saleable calves. Despite problems, tribal members are still interested in the concept.

Under a new program, sharecroppers would be given bred heifers and bulls that they own and manage themselves, with the agreement that they provide 40 percent of their allotted animals back to the tribe as meat

The tougher task arises in designing the Tribal National Park with its new herd of 1000 buffalo.

within seven years. For the tribe, this means that only seven sharecroppers would be needed to provide *all* of the meat wanted for ceremonial uses. The huge financial hurdle of meat donations could be overcome. In addition, sharecroppers could become owners of a financial asset debt free and could potentially launch a new business.

MIXING BUFFALO & POLITICS

The tribe's newly adopted Buffalo Management Plan, once implemented, could utilize the ecological resources of the area to accommodate the biological demands of the buffalo and the cultural demands of the people. A financially sustainable business model exists for both the tribe and its sharecroppers. The take-home lesson for the tribe is that the balance of culture and finance is first defined through the health of the land and buffalo.

The tougher task arises in designing the Tribal National Park with its new herd of 1000 buffalo. Although the revenue potential exists for a workable business model, creating the park requires a "government-to-government" relationship with the NPS. Governance and successful management of the new park and its many complexities will require the park service and the tribe to view themselves as full-fledged partners, rather than antagonists continuing a decades-long battle over disputed lands. If political forces and positive incentives can be aligned, the opportunity exists for both the tribe and the NPS to be ecological, cultural, and economic pioneers.

EPILOGUE

By Terry L. Anderson

In this case study, Todd Graham and Jeremy Gingerich apply their private land and wildlife management expertise to the creation of a Tribal National Park on the Pine Ridge Reservation. The romantic vision of buffalo roaming the Badlands is appealing, but Graham and Gingerich add a healthy dose of realism when they note that the plan requires "mixing buffalo and politics." The authors hope that the tribe and the National Park Service (NPS) can create a workable "government-to-government" relationship and emerge as "ecological, cultural, and economic pioneers."

Unfortunately, many tribes have not fared well in their government-to-government experiences in the past. The challenges of partnering with the NPS and creating a successful recipe for ecological, cultural, and economic gains are real. Consider the agency's track record in these areas. On the ecological front, wildfires, invasive species, and overcrowding are pressing problems. On the cultural side, the NPS is not known for preserving cultural heritage; witness Santa Rosa Island where the park service eliminated a working cattle ranch that was an integral part of the island's heritage. Finally, on the economic front, the park service budget is always in the red despite managing some of the nation's most valuable assets.

Successful Indian tribes tend to be those that have moved beyond government-to-government relations. Alison Berry's study of "Two Forests under the Big Sky" explains how the Confederated Salish and Kootenai Tribes have achieved ecological, cultural, and economic success by taking control of their forests.

If the Oglala Sioux are to successfully manage a buffalo herd on the South Unit of the Badlands, they will have to search for more independence. This study points out that there are tradeoffs among ecology, culture, and economics. Sustainable management must start with a profitable bottom line, and Graham and Gingerich begin to explain how this can be achieved. From that starting point, the tribe itself is in the best position to achieve ecological, cultural, and economic success.

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