

RESTORING THE PRAIRIE MENDING THE SACRED HOOP

**Prairie Conservation and Restoration
on the Cheyenne River Reservation**





Foreword

Nearly two centuries ago, Lewis and Clark began their voyage of discovery to the Missouri River and lands beyond. Prairie grasslands comprised the single largest ecological community they encountered on their journey, sustaining some of the West's most legendary wildlife.

Millions of buffalo, mule deer and pronghorn grazed on prairie grasses and flowering plants. Large and small predators fed upon the grazing animals while eagles, ducks and migratory shorebirds soared overhead in search of a place to rear their young. A complicated and intricate tapestry was woven together, with habitat and wildlife in careful balance.

Indigenous people were also part of this delicate but resilient tapestry. Using all the prairies provided, the people and their culture prospered. Their survival depended on respecting all the prairie provided-shelter, clothing and food.

However, all this changed with the settlement of the Great Plains and the plowing of the prairies. Wildlife populations plummeted because of severe habitat loss and over-hunting. Buffalo were relegated to small fenced areas where they were protected but unable to flourish. The new prairie settlers had little tolerance for wildlife on grasslands that were now far more valuable as crop or pasture lands than habitat. The native people, too, were displaced and moved aside to accommodate agricultural development.

If we are to save North America's dwindling grasslands and the culture and wildlife it supports, we must conserve what remains and restore what we can. While many Americans are uncertain how to begin saving North America's grasslands, the original people of the prairies have emerged as leaders in this new conservation effort. The conservation efforts of the Cheyenne River Sioux Tribe stand as a shining example of tribal wildlife and habitat management, and provide a model as we seek to understand what prairie conservation and restoration can mean on all public, tribal and private grasslands.

As part of our long-standing dedication to conserving wildlife and the habitat on which it depends, the National Wildlife Federation, together with its state affiliate organizations, is working to conserve America's prairie grasslands and restore its wildlife on public, private and tribal lands.

We hope this report will bring to light the possibilities for conservation success on tribal lands and, ultimately, grasslands across North America. I hope the story of the Cheyenne River Sioux Tribe will inspire you as it did me and that you will begin to play a part in supporting the comeback of America's magnificent grasslands and the culture, people and wildlife it supports.

Sincerely,

Mark Van Putten
President and CEO
National Wildlife Federation

NATIONAL WILDLIFE FEDERATION

As the nation's largest member-supported conservation advocacy and education group, the National Wildlife Federation (NWF) unites people from all walks of life to protect nature, wildlife and the world we share.

Mark Van Putten, President and CEO

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REBUILDING AMERICA'S GRASSLANDS

Tribal lands feature some of the last remaining pieces of intact grasslands on the Great Plains. These lands have largely survived development and sprawl and are some of the best remaining habitat for prairie wildlife. If well-managed, these short-, mid- and tall- grass prairies can become the foundation for restoring grassland habitat and wildlife across the west. In addition to voluntary private landowner incentives, the National Wildlife Federation believes the key to restoring America's grasslands lies in protecting the large remnants found on federal and tribal lands.

AN INLAND SEA OF GRASS

A sweeping sea of grass, America's grasslands once stretched from Canada, south into Texas and Mexico, east into Illinois and west to the foot of the Rocky Mountains. The lands were a rich tapestry of grasses, flowers, shrubs and wildlife intricately woven together, comprising one of the most resilient and productive ecosystems on the planet. Buffalo, prairie grouse and black-tailed prairie dogs all thrived on the plentiful native grasses growing in the rich prairie soil. North America's grasslands are the essence of the Great Plains, its history, its culture and its wildlife. Yet, our prairie grasslands may soon only exist in faded photographs and memories.

Perhaps no other North American ecosystem has been ignored, overlooked and mismanaged more often than our prairie grasslands. The earliest European explorers described a land of dangerous extremes with little value to people who depended on well watered, fertile soils for agriculture. Shelter was hard to find on the Great Plains because the prairies lacked the tree cover and varied landscapes of other regions. Dangerous blizzards, thunderstorms and unpredictable water sources threatened the early European immigrants who thought of the prairies as a place to move through quickly, a penance to pay to reach the more hospitable lands of California and Oregon.

"the Great American Desert...a land wholly unfit for cultivation and uninhabitable for those dependant on agriculture. This region...may prove of infinite importance to the United States, inasmuch as it is calculated to serve as a barrier to prevent too great an extension of our population westward."
(Major Stephen Long, 1821)

Today, this attitude still prevails. Many people drive through America's grasslands only to reach either coast. For those who do slow down, however, the prairies of the Great Plains still contain beautiful vistas and exciting wildlife, providing a glimpse into their place in our nation's history.

Tragically, the vast majority of North America's prairie grasslands have been plowed under, paved over or poorly managed to the point of nearly disappearing. Native Americans understand the value of North America's grasslands. For thousands of years, tribes inhabited the plains and gathered the food and materials needed for survival. In every aspect of their lives, Native Americans recognized the need to respect and care for the lands necessary to support their culture. Today, native tribes often provide important leadership in restoring and conserving the prairie ecosystem.

The Cheyenne River Sioux Tribe of South Dakota plays an extraordinary role in conserving and restoring the prairie on their Reservation. The Tribe has always recognized healthy prairie grasslands are essential to maintain their culture. Consequently, the people of Cheyenne River have developed innovative conservation and restoration programs to revitalize their land and culture. The remarkable success of these programs and groundbreaking work can—and must—serve as a model for future management of the Great Plains. If we follow their lead, grasslands will have a place in our country's future, not just its past.



A BIOLOGICAL TAPESTRY

To understand the scope of the changes to our prairie grasslands and our wildlife resources, you must not think of the prairie as you see it today, rather imagine a vast landscape bursting with plant and animal life. The tall-grass prairie grew in the deeper, more moist soils of the eastern Great Plains. To the far west, in the rain shadow of the Rockies, was the short-grass prairie, where poor soils and unpredictable rainfall allowed the grasses to grow only a few inches per year. The most productive grassland of all, the mixed-grass prairie, was found between the two. This mixed-grass prairie is called an ecotone, where grasses, flowering plants, shrubs and trees from both tall- and shortgrass prairies blend. The mixed-grass prairie was resilient because its plant foundation featured the more drought resistant short grasses and the more productive tall grasses. In the mixed-grass prairie, grasses and flowering plants (forbs) were almost always available, regardless of fluctuating seasonal temperatures or precipitation. Trees grew along water courses and on the moist north facing slopes and forbs dominated wetlands surrounding springs. The grasses moved with the constant wind and sunk deep roots into the prairie soil.

Grazing Wildlife

Wildlife was abundant on the grasslands. Millions of buffalo wandered over vast ranges, not only in seasonal migrations, but in daily and weekly movements, these nomadic grazers found new pastures. Millions of black-tailed prairie dogs burrowed tunnels into prairie soils and feasted on its rich plants. Buffalo sought out prairie dog colonies, especially in spring, because the prairie dogs constantly trimmed the taller plants, allowing the forbs underneath to grow. These forbs, although smaller in size, were more nutritious than plants found outside prairie dog colonies. Numerous pronghorn

antelope followed the buffalo, benefiting from their grazing. Unlike buffalo, pronghorn are very selective grazers. After the buffalo took the first cut at the prairie grasses, the pronghorn followed to select the most nutritious plants. Mule deer inhabited the rougher terrain and river bottoms looking for shrubs, forbs and grasses. Elk thrived on the prairies too and, like the buffalo, favored grasses. Large and small grazers used the entire grassland landscape, perfecting a foraging pattern to minimize competition and benefit all.

Prairie Predators and Birds

Predators of all sizes prowled at the edges of the huge herds and prairie dog colonies. Wolves stalked buffalo, elk and deer; mountain lions used the cover of river bottoms and badlands to hunt and rear their young. Black bears traveled along stream courses and fed on numerous succulent plants and berries. Even grizzly bears roamed the prairies, hunting for food. Coyotes, swift foxes and badgers depended on the smaller prey found near prairie dog colonies and dense stands of vegetation. Prairie dogs provided not only food, but shelter for many prairie species. Black-footed ferrets fed on prairie dogs and used their burrows for shelter. Coyotes and foxes enlarged prairie dog burrows for their dens and birthing sites. Burrowing owls raised their young in abandoned burrows. The owlets grew rapidly on the abundant insects found nearby.

Overhead, golden eagles, Swainson's hawks and other avian predators soared, looking for small mammals and carrion. Along the streams, bald eagles fished, nested and reared their young. In the prairie wetlands and potholes, mallards, pintails, widgeons and other species of ducks nested during summer, along with shorebirds like avocets, curlews, and phalaropes.





The buffalo's hide and fur help insulate them from snow, wind and cold on the Great Plains. Their efficient digestive system promotes survival even on the poorest quality winter forage. Its body size, enhanced by summer feeding, buffers it against the most bitter winter weather and winter food shortages.

All species took full advantage of the short but productive prairie summer. On drier sites, prairie chickens, sharp-tailed grouse and numerous songbirds fed on insects and seeds produced by the prairie. These birds utilized the highly productive prairies to rear their young and prepare for the unpredictable winters that followed.

Winter Adaptations

Winter forced most birds to migrate south, some animals to hibernate and large grazers like pronghorn to seek out wind-blown ridges for winter forage. Prairie grouse retreated to the woody draws where they found both shelter and food. Many small animals depended on the prairie dog burrows to shelter them from blizzards. Prairie dogs, rabbits, mice, black-footed ferrets, swift fox,

snakes and other animals sought the security of existing or enlarged prairie dog burrows to escape the winter's bitter cold. Black-tailed prairie dogs stayed below ground only during the most severe winter storms and returned to the surface to forage, thus providing winter prey for migrating ferruginous hawks and snowy owls.

Human Occupation

Humans occupied and used the prairies too. Indigenous peoples dug roots and tubers, picked berries and harvested edible plants. They hunted all animals from birds to buffalo. Intertwined with the plants and animals of the grasslands grew a culture whose survival depended on these prairie resources.



A TAPESTRY UNRAVELED

America's once vast prairies have been largely fragmented into isolated remnants no longer capable of supporting historic wildlife populations. Gone are the large, free-ranging herds of grazers and the large predators that fed upon them. Populations of pronghorn and prairie dogs, predatory and songbirds are seriously reduced. We have dissected the grasslands with railroads and highways; dammed its rivers; drained its aquifers; and exhausted its streams and springs. We have plowed and planted our grasslands without regard to its highly erosive soils and unpredictable weather, resulting in tragedies like the Dust Bowl of the 1930s. Too much or poorly managed livestock grazing has also damaged this ecosystem. Livestock do not naturally mimic the nomadic grazing patterns of buffalo, instead, they overgraze unless actively herded.

We have intentionally introduced exotic plants into the grasslands. Other exotic plants have followed our highways and irrigation systems into the heart of the prairie. Regardless of the route of invasion, these exotic plants are not part of the natural community and are of little value to wildlife or livestock. Moreover, these exotics compete with native plants and choke them out of the grassland ecosystem.



WHY IS THE PRAIRIE IMPORTANT?

Despite our impacts to prairies, a few tattered fragments of grasslands remain. Although most areas are affected by exotic plants, reduced water availability and habitat fragmentation, the remaining tracts still provide important benefits to the ecology and economy of the Great Plains. Opportunities remain to shift to more responsible stewardship of our remnant prairies. These remnants can serve as the nucleus of grassland conservation and restoration programs across the West.

Healthy prairies are essential to natural life in the Great Plains region and benefit both people and wildlife. Some of the most critical benefits are:

Bio-diversity and Wildlife Habitat-

Healthy prairies support a wide diversity of life and habitats. Many threatened, declining and endangered species live on the prairies and conserving and restoring their prairie habitat is critical to recovery. Studies show habitat loss or alteration was a factor for approximately 95 percent of the species listed as endangered or threatened in the U.S. (Flather, et al., 1994).

Root Systems-

Grasslands have deep root systems to help protect against erosion and flooding by holding soils intact and absorbing snow melt and rain. The roots support billions of microscopic creatures (e.g., nematodes) that help maintain soil fertility.

Carbon Storage-

Prairie grasses help mitigate atmospheric carbon dioxide, a greenhouse gas linked with global climate change. According to USDA estimates, "with improved management, farms and rangelands have the potential to store an additional 180 million metric tons of carbon annually, for a total of 200 million metric tons a year." This equals 12-14 percent of total U.S. yearly carbon emissions (Comis, et al., 2001).

Medicinal Native Plants-

Many native plants have proven beneficial in treating some diseases. Many more discoveries await further analysis of prairie plants; traditional knowledge may provide insight into potential uses of these plants.

Contributions to Local Economies-

Prairies provide both consumptive and non-consumptive wildlife enthusiasts numerous opportunities to enjoy their pursuits. Local economies benefit from the revenue generated by hunters and bird watchers alike.

"...the Plains are the only region in the country, and perhaps in the world, where there is a real chance of achieving, within the lifetimes of present generations, a way of living on the land that will be sustainable for centuries to come."

(Callenbach, 1996)



THE CHEYENNE RIVER SIOUX TRIBE

The Cheyenne River Sioux Tribe (CRST) of South Dakota has faced the challenges to conserving and restoring the prairie ecosystem on their Reservation. Their programs have established CRST as a leader in grassland restoration and conservation. They are a model for other communities, agencies and our society to follow in shifting to prairie stewardship. We have the opportunity to learn from one of the original peoples of the prairie - the *Lakota*. Vine Deloria, *Lakota* author and theologian, describes the prairie and Plains Indian connection, "Don't romanticize us. Indians have an extensive and specific technical knowledge of Plains survival, as well as an extensive and specific spiritual tradition. If you have the nerve, I suggest you take both into account. After all, you people have been on the Great Plains for two hundred years. We've been here for forty thousand" (Matthews, 1992).

Lakota History

The people of Cheyenne River are not Cheyenne, but *Titonwan Lakota*. *Titonwan* translates to "dwellers of the plains" and *Lakota* means "friend or ally." The *Lakota* are a distinct linguistic division of the Siouan people and are sub-divided into seven independent bands collectively known as "The Seven Council Fires", or *Oceti Sakowin*.

The territory of the Great Sioux Nation once encompassed nearly all of the Great Plains. The Siouan people ranged from the Mississippi River to the foothills of the Rocky Mountains, north into Canada and south into Kansas. They roamed freely across this entire landscape, following the buffalo and migrating with the seasons. *Lakota* people spent their lives hunting and gathering on the prairie and developed a unique and sophisticated culture based on the principle of living in harmony with nature and the environment.

In 1868, the United States and the *Lakota* signed the Treaty of Fort Laramie creating the Great Sioux Reservation. This treaty established the legal boundaries of land "set apart for the absolute and undisturbed use and occupation" of the *Lakota* people (15 Stat 635). While the Treaty was entered into in good faith by the *Lakota*, gold was found in the Black Hills inside the Reservation. The United States violated the Treaty and allowed miners to trespass on *Lakota* land. In 1887 Congress passed the General Allotment Act, effectively splintering the Great Sioux Reservation into smaller reservations and opening up the remaining land to homesteaders. On March 2, 1889, the United States established the Cheyenne River Sioux Reservation, naming it after the prairie river forming its southern border.

By signing treaties with the *Lakota*, the United States recognized the Tribe as a sovereign government with the right to self-determination. The Indian Reorganization Act of 1934 allowed all tribes to adopt Constitutions and develop Tribal Councils. As a result, the Cheyenne River Sioux Tribe created a governmental system that has made Cheyenne River one of the most progressive and prominent Indian reservations in the country.

It is important to understand the Cheyenne River Sioux Tribe is a construct of the United States Government. The Cheyenne River Sioux Tribe is really made up of four of the Seven Council Fires of the *Titonwan Lakota*- the *Mnikoju*, *Itazipco*, *Siha Sapa* and *Oo'henumpa*. These bands were simply camping in the area when the Reservation was established. They refer to themselves as "the Four Bands."



The Four Bands of Cheyenne River

The General Allotment Act began an era of assimilation of Indian tribes across the United States. The law was designed not only to break up large Indian land holdings and increase Anglo settlement, but to dismantle Indian culture and traditions. The government's policy of assimilation had a tremendous impact on all tribes. Children were sent to government boarding schools and completely stripped of their culture. Federal law prohibited Native Americans from practicing their religion or speaking their native language. Entire generations lost knowledge of their cultural traditions and spiritual ways.

In recent times, the people of Cheyenne River have begun to reassert their cultural and spiritual traditions. During the assimilation era of the early 20th century, great *Lakota* leaders of the Four Bands refused to let their language and traditions die. The efforts of these great visionaries preserved *Lakota* language and spirituality and keep it alive and growing in the 21st century.

To ensure their culture and traditions are preserved, the Tribe is actively conserving and restoring their prairie homeland. *Lakota* culture and spirituality are inextricably woven into the grasslands mosaic, creating a deep spiritual connection with the land. Native prairie plants and wildlife are a gift from the Creator and have been part of their culture for thousands of years. *Lakota* people need native species of plants and wildlife, especially the buffalo, for their culture to endure. They must be able to harvest traditional foods like chokecherries, plums and wild turnips, and to gather native plants and herbs for medicines and ceremony. *Lakota* people live by the principle of *Mitakuye Oasin*, the belief all are related - humans, plants and animals. They are the relations of the *Lakota* and are respected as such. The Tribe believes everything has its place, and they are committed to returning what belongs.

The people of Cheyenne River are rooted to the prairie like the grasses are rooted to the soil- their ties run deep and extend for miles. *Lakota* ancestors are buried here, and their spirits continue to guide the Tribe toward cultural and spiritual renewal. It is important for the Tribe to preserve their prairie and the way of life of their ancestors because, then, their culture is preserved for the next generations.



"We the people of Cheyenne River, the people of the Four Bands, are proud of our home, our families, our spirituality, our life-ways, our heritage and our tribe...we live our lives now as proud members of our tribe and everyday our leaders and our elders do what is necessary to ensure that our rich past is not forgotten or ignored by our young people."

(LeBeau, 2001)



“To love and appreciate the Rocky Mountains, you only open your eyes, but to love and appreciate the prairie, you must open your soul.” (Louis Toothman, 1961)





CHEYENNE RIVER - LEADERS IN PRAIRIE RESTORATION

The Cheyenne River Sioux Reservation today encompasses 2,820,751 acres in Ziebach and Dewey counties in north-central South Dakota (Figure 1). More than half of the Reservation lands are in trust status and are managed by the Tribe for the benefit of the people of Cheyenne River. The Cheyenne River Sioux Reservation is bounded on the east by the Missouri River, on the south by the Cheyenne River, Standing Rock Reservation on the north and extends west to the Ziebach - Meade county line. Thunder Butte is the highest point on the Reservation at 2738 feet above sea level, while the lowest point is 1610 feet along Lake Oahe. The Reservation is a mixed-grass prairie, with gently rolling hills, brush-covered hillsides and timbered river bottoms. The common grasses on the Reservation are western wheatgrass, green needle grass, needle-and-thread and blue gramma; common forbs include fringed sagewort, wild parsley and gumbo lily. Four prairie woodland types found on the Reservation are green ash, bur oak, Rocky Mountain juniper and plains cottonwood (Game, Fish, & Parks Department, 1999).

While most of the Reservation grasslands are in relatively good condition, it is important to realize the Reservation has not been immune from the ecological and economic forces at work in the rest of the country. Since the Reservation boundaries were set in 1889, a significant amount of Reservation land has been sold or leased and therefore altered in many of the same ways as non-Reservation grasslands. While the Tribe is committed to reacquiring land that has been lost, the previous assault on the integrity of their grasslands has created many challenges to restoration. Additionally, the people and lands of the Cheyenne River Sioux Tribe were negatively impacted by the construction of Lake Oahe Dam by the U.S. Army Corps of Engineers in 1962. The Tribe lost 104,420 acres when the reservoir flooded the river bottomlands including approximately 43,722 acres of grassland. Flooding caused by Lake Oahe forced the relocation of six traditional communities of people living along the river and destroyed the river ecosystem. After nearly 30 years, Congress finally enacted legislation to begin to mitigate the environmental and social impacts of the construction of Lake Oahe.

The people of the Four Bands have come together to ensure their homeland and culture is preserved for the next generations. The Tribe has approached this task holistically, relying on their culture and the *Lakota* world-view of recognizing the interrelationship and intrinsic value of all species. For the *Lakota*, recognizing this relationship is imperative for the health and harmony of the environment; every piece of prairie restored has a positive effect on the entire ecosystem. Cheyenne River is mending the circle of life on the prairie. They believe that they have an opportunity and an obligation to exercise leadership in land stewardship (Prairie Management Program, 1999).

Conservation Programs

The Cheyenne River Tribe has established three programs to meet the challenges of prairie restoration and conservation on the Reservation. The programs are *Pte Hca Ka* Inc. (The Buffalo Program), the Prairie Management Program (PMP) and the CRST Game, Fish & Parks Department (GFPD). These programs are actively restoring habitat, returning endangered species and native grasses, and replacing noxious weeds and exotic plants with native plants and trees.

Buffalo Program

In 1991, the Cheyenne River Sioux Tribe created *Pte Hca Ka* Inc. It was formed as "an integrated and culturally compatible management system for reestablishing buffalo as a focal point for socioeconomic development and community cohesion on the Cheyenne River Reservation and is viewed as a way to strengthen the sovereign status of the *Lakota* people" (Fred DuBray, pers.comm.). The *Lakota* world-view requires socioeconomic development be in step with cultural traditions and it is very important to uphold the utmost respect for buffalo. Through *Pte Hca Ka*, the Tribe has combined *Lakota* tradition and modern technology to establish a harmonious relationship of human, natural and financial resources.

Pte Hca Ka was the subject of a Public Broadcast System documentary "American Bison: Spirit of a Nation" and has received High Honors from The Harvard Project on American Indian's Economic Development Honoring Contributions Program. In winning this award, *Pte Hca Ka* was declared a model for tribal economic development. Recently, *Pte Hca Ka* has been named a semifinalist in the Innovations in American Government Awards Program of the Institute for Government Innovation at the John F. Kennedy School of Government at Harvard University.

Prairie Management Program

The CRST authorized the Prairie Management Program in 1993 after the U.S. Fish & Wildlife Service identified opportunities for 33,000 acres of black-footed ferret habitat on the Reservation. Restoring and maintaining the mixed-grass prairie ecosystem on the Cheyenne River Sioux Reservation is the goal of the PMP. Through the Prairie

Management Plan (Plan), the Tribe has taken a holistic approach to conserving the prairie ecosystem by emphasizing *Lakota* cultural traditions, biodiversity, ferret reintroduction, prairie dog management and integrated land management. The PMP is an example of integrating Native American values with scientific techniques to promote restoration of the prairie ecosystem. Implementation of the Plan occurred in two phases. Phase I was completed in 1999, and Phase II began in 2000.

CRST Game, Fish & Parks Department

The CRST's Game, Fish & Parks Department, established in 1935, is responsible for managing all wildlife, fisheries and recreational resources on trust lands within the boundaries of the Reservation. GFPD oversees management of game, nongame and fish and wildlife species listed as threatened or endangered. Management activities include population and production monitoring, habitat restoration and development, harvest monitoring and management, game code enforcement, hunter education and depredation management. Recently, the GFPD has developed the "Terrestrial Wildlife Habitat Restoration Plan for Oahe Reservoir" and will begin the task of mitigating the loss of grassland and riparian habitats from Lake Oahe Dam.

PROGRESS IN HABITAT RESTORATION

Habitat restoration is essential to bringing back the prairie. It is one of the most challenging tasks facing the Tribe and all prairie conservationists. While much remains to be done, the Tribe has already achieved success in prairie restoration.

Fragmentation of the Prairie Ecosystem

Reducing fragmentation of the prairie ecosystem is key to its recovery. Wildlife needs large expanses of habitat to thrive. Wildlife populations must have access to different plant communities during different seasons and room to rear their young and hide from enemies. The Tribe realizes they have some of the largest, intact grasslands left in the country. As they continue to reacquire lands within their Reservation boundaries, fragmentation of the prairie is reduced and biodiversity increases. In its "Habitat Restoration Plan", the GFPD plans to restore and manage 43,700 acres of native grassland prairie for wildlife conservation.

Loss of Riparian Areas

To partially mitigate the loss of river bottomlands flooded by the Lake Oahe Dam, GFPD constructed 35.5 acres of food plots, planted 28,900 trees, built 8 miles of fence and 100 nesting structures in the affected area of the Missouri River. The GFPD is planning for additional riparian and terrestrial habitat restoration along the Missouri River. The project will focus on riparian restoration, native grassland management, wetland creation and restoration and upland tree planting.

Soil Erosion

Erosion of prairie soils is a significant problem in prairie restoration. Native cottonwood, plum and chokecherry have been planted by the CRST to reduce erosion. In Phase I of the Prairie Management Plan, 23,200 native trees were planted on 1.4 million acres of trust land. Additional trees control soil erosion and also provide shelter and shade for livestock and wildlife.

Overgrazing

While native prairies evolved in concert with native grazers, overgrazing by livestock has caused serious problems for wildlife habitat. The PMP has been instrumental in remedying this problem by implementing a number of management solutions designed to halt overgrazing and create an atmosphere where livestock and wildlife can coexist. The PMP is seeing a change to more native grasses on rangeland as a result of their efforts.

Cattle tend to overgraze areas near water and water is limited on the Cheyenne River Reservation. Stock dams encourage movement and distribution of cattle on rangeland by providing more water sources spread out over a larger area. In Phase I of the Plan, the PMP constructed 181 stock dams and repaired 1262. These stock dams have provided 300 additional surface acres of rangeland for domestic livestock and wildlife.

Cross fencing is another land management solution implemented by the PMP designed to combat overgrazing. Cross fences allow land managers to implement rotational grazing systems, limiting the amount of grazing by livestock. The PMP constructed 262 miles of cross fencing in Phase I, reducing the area of overgrazed land.

Exotic Plant and Noxious Weed Invasion

The Tribe is combating the pervasive problem of exotic plants and noxious weeds introduced on their Reservation. These introduced species harm native prairies and wildlife habitat. "After habitat loss, spread of alien species is considered the greatest threat to species listed as threatened or endangered" (Flather et al., 1994). Exotic species found on the Reservation include Canadian thistle, cheatgrass, leafy spurge and yellow sweet clover.

PROGRESS IN WILDLIFE RESTORATION

Return of the Buffalo

One of the most significant advances the Tribe has made in restoring the prairie ecosystem is repatriation of buffalo. Once numbering up to 60 million across the continent, buffalo were extirpated from the Northern Plains by 1883. Buffalo are central to prairie restoration; they have been part of the prairie ecosystem for thousands of years. "The plains", says Vine Deloria, "were and are a covenant between human and bison. Our bones go back to the ground to become the dust that nourishes the grasses that feed the buffalo" (Matthews, 1992). Through *Pte Hca Ka*, the Tribe has brought the buffalo back to the land and the *Lakota* people.



Buffalo are a keystone species of the prairie and are an intrinsic part of the cycle of renewal on the prairie grasslands. Buffalo evolved with the prairie and are well adapted to its vegetation and climate. Their presence on the prairie encourages a return to native prairie grasses and unlike cattle, buffalo are nomadic. They instinctively sustain the prairie by implementing their own natural system of rotational grazing - as long as a large land base is available.

"The buffalo is the center of the CRST spiritual being and the wisdom, strength and foresight of the Tribe's future. Spiritual ceremonies and religious activities of the *Lakota* are centered around the buffalo" (Fred DuBray, pers. comm.). The *Lakota* believe that the Buffalo Nation gave itself to the *Lakota* people when they came to the prairie; buffalo provided everything the people needed to survive. Today, *Pte Hca Ka* provides lean buffalo meat to the Tribe for community events such as the Pow Wow and Sundance. By providing this healthy, traditional food, *Pte Hca Ka* hopes to mitigate the prevalent health problems such as heart disease and diabetes so common in *Lakota* people today.

Cheyenne River's buffalo herd has grown from 85 to 2000. Their ultimate population goal is 5000 buffalo. To ensure *Lakota* traditions are honored along with the spirit

of the buffalo, *Lakota* spiritual advisors and elders are consulted to assist *Pte Hca Ka* on traditional matters. They are asked how to care for buffalo by-products, perform cleansing ceremonies and any other culturally appropriate ceremonies to release the spirit of the buffalo and pray for its safe journey to the spirit world.

"*Pte Hca Ka* restores buffalo to their rightful place as the central element of the Reservation's prairie ecosystem and the Tribal economy, and it strengthens their spiritual direction that, in turn, restores hope in the daily lives of the Cheyenne River people" (Fred DuBray, pers. comm.). The buffalo's return to the Cheyenne River Sioux Reservation is demonstrative of the interrelationship among the *Lakota* people, the buffalo and the prairie.

Black-footed Ferret Reintroduction

Black-footed ferrets are among the rarest and most endangered mammals in North America. Their population declined to a minimum of 18 individuals in the 1980s. Currently, recovery is stymied by a lack of suitable habitat (large prairie dog colonies) across the West. In October 2000, the Tribe released 69 ferrets on the Reservation and plans to release more in succeeding years. To date, the Tribe has documented an encouraging 55% survival rate for the ferrets. Continued survival of the ferret population on the Reservation will require ongoing monitoring and management for several years, along with supplemental releases.

For the continued success of the ferret population on the Cheyenne River Sioux Reservation, it is imperative black-tailed prairie dog colonies be conserved and expanded where appropriate. Ferrets are dependent on prairie dog colonies for survival. The Tribe has made significant strides in managing their large expanse of prairie dogs to ensure the survival of both prairie dogs and ferrets.



Black-tailed Prairie Dog

Black-tailed prairie dog management on the Cheyenne River Sioux Reservation is an important focus of the Tribe's prairie conservation efforts. Currently, black-tailed prairie dogs are a candidate species for listing as threatened under the Endangered Species Act. Prairie dog populations declined because of government-sponsored poisoning campaigns and as their native prairie was developed. Currently, prairie dogs occupy only 1% of their historical range and are still considered pests by many ranchers and land managers. But, the native prairie ecosystem cannot be restored without them.

Prairie dogs, like the buffalo, are a keystone species of the prairie ecosystem. Black-footed ferrets, eagles, hawks and swift fox all prey upon prairie dogs. Through grazing and burrowing, prairie dogs create a unique habitat within the larger prairie ecosystem. More than 170 grassland species rely on prairie dog towns for food and shelter (Prairie Management Program, 1999).

Over the years, poor rangeland management throughout the Great Plains has led to conflict between livestock operators and prairie dogs, resulting in large poisoning campaigns. The CRST manages approximately 7% of the remaining prairie dog habitat in the United States. It is important habitat because the colonies exist

as large complexes, while most prairie dog colonies across the U.S. are small and fragmented. The Tribe recognizes the unique status of their colonies and has devoted range management efforts to include prairie dogs. By improving grazing methods, reducing overgrazing and planting trees, the Tribe has created unsuitable habitat for prairie dog expansion, thereby controlling and managing their populations. The Tribe has ensured suitable habitat for the recovery of the black-footed ferret, provided an atmosphere where prairie dogs and livestock can coexist, and has demonstrated its leadership in endangered species recovery.



THE CHEYENNE RIVER SIOUX TRIBAL PARK

Right now, scattered across their Reservation, the Tribe is conserving or restoring virtually every component of a native prairie. Absent the wolf and grizzly bear, the Tribe has the capacity to restore all the missing pieces of the grasslands, while possessing the foresight and courage to conserve what remains. Their vision is to integrate and concentrate their restoration efforts into a tribal prairie park on the Cheyenne River Sioux Reservation. The Cheyenne River Sioux Tribal Park would be the culmination of their efforts to restore their prairie and their culture.

“The majority of trust lands within the boundaries of the Cheyenne River Sioux Reservation have not been impacted by cultivation, and remain as relatively intact, large representative tracts of mixed-grass prairie” (Game, Fish & Parks Department, 1999). The Tribe recognizes the importance of preserving these prairie resources on a large scale and a tribal park is the key to achieve their vision. The Tribe has the absolute capacity to do what no one else in the country has had the ability or political courage to do - create a large prairie reserve. The Park would benefit *Lakota* people and the entire nation.

The core of the proposed tribal park is *Pte Hca Ka's* buffalo area in Dewey county (Figure 2). Consistent with their commitment to increase their land base, the Tribe has recently reacquired 21,500 acres in this area for the Buffalo Program and ultimately the Park. This area is located in close proximity to the Missouri River and Lake Oahe, on a major highway, all increasing the visitor appeal. The topography consists of gently rolling hills, marked by steep and striking buttes. The dominant physical feature near the proposed park is Patch Skin Buttes, elevation 2,277 feet. Patch Skin Buttes have significant cultural meaning for the Tribe.

A Cheyenne River Sioux Tribal Park is an opportunity for the Tribe to strengthen their sovereign status. A Tribal Park will serve as a source of socioeconomic development for the Cheyenne River people. It will create jobs, eco-tourism opportunities and a marketplace for authentic, native artwork. The proposed park will be developed and operated by the Tribe, employing and benefiting tribal members. Thus, the Tribe will be its own source of empowerment. The revenue generated will remain on the Reservation, furthering the economic stability of the Tribe.

The Cheyenne River Sioux Tribal Park will be the most complete example of the prairie ecosystem in existence today. It will be a showcase for people from across the globe to learn about this overlooked but



important landscape and the culture of its original inhabitants. Along with buffalo, the Tribe is planning to restore elk and black-footed ferrets, and have expressed interest in returning swift fox to the area of the park. Scientists will have the opportunity to study a virtually intact, large expanse of mixed-grass prairie ecosystem.

The Tribe envisions the Park as a way to further their cultural and spiritual revitalization for the next generations. The Park is viewed as a re-creation of the lands their ancestors knew, a wild, sacred place for all *Lakota* people and for others to come, to listen, and to learn about a time when *Lakota* culture flourished. The people of Cheyenne River and all the *Lakota* deserve to have such a special and sacred place set aside, commemorating their history and celebrating their future. For the *Lakota* people, such a place is vital to the continuation of their cultural and spiritual traditions. They have come a long way since the assault on their way of life in the 1800's. The people and traditions have endured; the Cheyenne River Tribal Park will be a place for these traditions to be preserved forever, where their sacred hoop can, perhaps, finally be mended.

CONCLUSION

The prairie ecosystem has nearly disappeared from the North American continent. The ancient tapestry has been unraveled and mere tattered remnants remain. The landscape once teeming with large herds of buffalo, elk and pronghorn is gone. Gone too, are the grizzly bears, black bears and wolves. The sweeping sea of grass has been reduced to islands, fragmented oases among the farms and cities. Unsustainable land management and urbanization have reduced the prairie to a shadow of its former self. We will never be able to experience the landscape that sustained wildlife and indigenous peoples for thousands of years in its true form. Numerous national attempts to preserve and restore larger tracts of prairie by designating them as National Parks have failed because of a lack of political will and conflict with extractive groups. Rather, public prairie preserves exist as postage stamp-sized plots as Wildlife Refuges and National Monuments and Parks, where token buffalo herds are fenced - the prairie kept at bay.

The Four Bands are committed to achieving what no other group or agency has attempted - to conserve and restore the prairie on a large scale. Their conservation programs are true models for success in prairie stewardship. The Tribe has blazed a path in the burgeoning movement to restore the North American prairie and are demonstrated leaders in endangered species recovery and prairie restoration and management. The Tribe has shown that economics and conservation are not contradictory, that economic growth and sustainability are inextricably linked to natural resource conservation. They have accomplished all this despite being specifically excluded by Congress from receiving federal conservation dollars in the form of Federal Aid for Fish and Wildlife Restoration, recovery funding in the Endangered Species Act of 1973 and most federal land acquisition funding programs.

Simultaneously, the Tribe is experiencing a revitalization of their culture and spirituality. The Cheyenne River Sioux and all *Lakota* people need native prairie plants and animals to make their lives complete. As Jim Picotte of the Cheyenne River Culture Center says, "It is important for the Tribe to preserve our prairie lands for they are all we have left. We need pristine grasslands for our culture to endure." For the Tribe, it is a matter of survival.

The Cheyenne River Sioux Tribe is on the verge of providing the nation a glimpse of prairie as nearly as complete as that encountered by Lewis and Clark when they passed through this area on their voyage of exploration 200 years ago. The Tribe is willing to share its Tribal Park with all people to further enhance the appreciation for the prairies and *Lakota* culture. The Cheyenne River Sioux Tribal Park will provide a chance to watch grasses and wild flowers gently ebb and flow in a warm wind; thunderstorms build in the distance; and the sun rise and set above the waves of grass. One will view a land where buffalo once again fill the landscape and where, in the night sky, the Milky Way appears as a stream of star clouds far brighter and more numerous than anything ever imagined by city dwellers. Visitors will experience all the prairie has to offer, all within the context of *Lakota* culture.

The Cheyenne River Sioux Tribe needs our assistance, support and encouragement as they continue to restore and conserve their grasslands, and to make their vision of a Cheyenne River Tribal Park a reality. As Fred DuBray, Director of *Pte Hca Ka* says "In the treaties and agreements the United States made with the *Lakota*, the government gave us what they thought to be the worst land. Now, ironically, it is the absolute best of what is left." The Tribe is committed to restoring and conserving the best of what is left and will need our assistance to make their success complete. The people of Cheyenne River deserve our uncompromising support to assure successful prairie ecosystem and cultural restoration - the lives of all Americans will be enriched with their success.



FIGURE 1. Vicinity and Site Location
Map of the Cheyenne River
Sioux Reservation

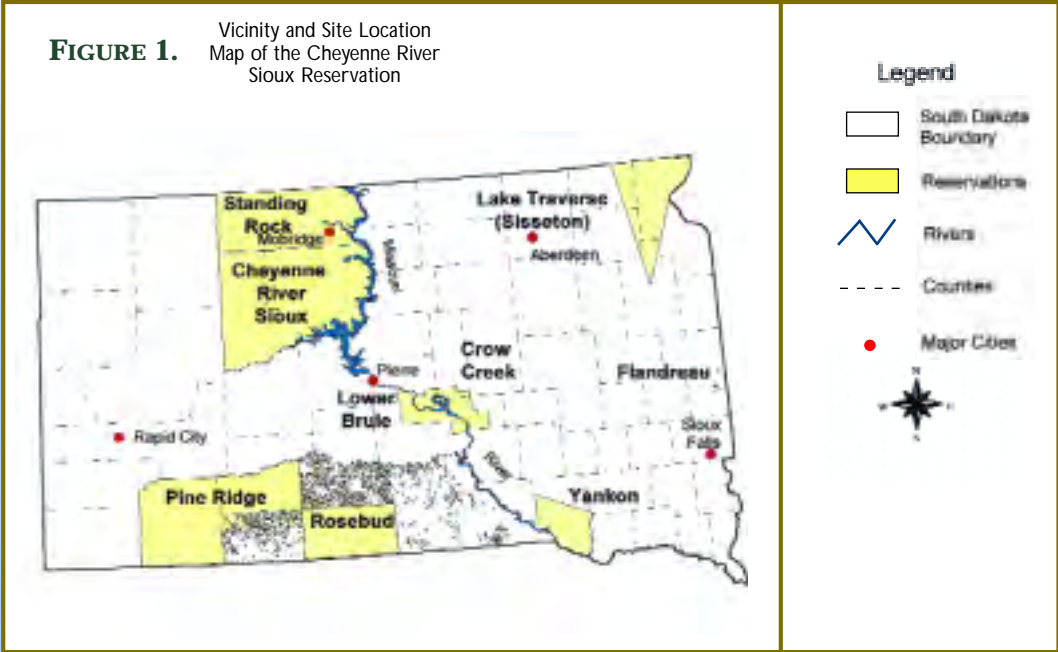
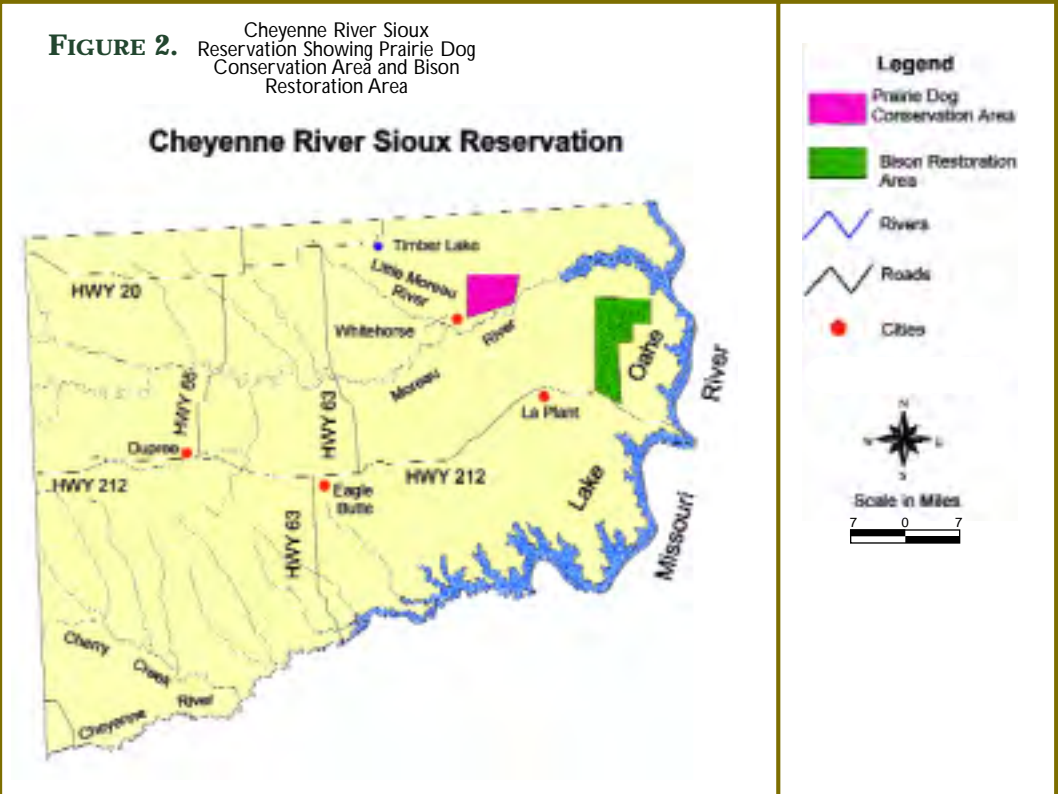


FIGURE 2. Cheyenne River Sioux
Reservation Showing Prairie Dog
Conservation Area and Bison
Restoration Area



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