



OKLAHOMA TALLGRASS PRAIRIE PRESERVE

Location:

*Northeastern
Oklahoma*

Project size:

37,000 acres

Initiator:

*The Nature
Conservancy*

PROJECT AREA DESCRIPTION

In presettlement times, the tallgrass prairie spanned 142 million acres from Canada to the Gulf of Mexico. It evolved under the forces of weather, bison grazing, and fire. Starting with European settlement, over 90% of the tallgrass prairie has been converted to agriculture.

The Oklahoma Tallgrass Prairie Preserve is located in the Osage Hills. The rolling hills are covered by tallgrass prairie interspersed with streams and post oak-blackjack oak savannas. The Preserve encompasses most of the upper portion of the Sand Creek watershed, and is buffered by adjacent privately-owned cattle ranches. Some 500 to 700 plant species can be found in the Preserve.

The Preserve is used for recreational activities such as hiking, photography, and nature observation. In addition, 107 producing oil and gas wells are located on the Preserve. The wells are independently owned, and produce oil and gas in compliance with a contract with the owners of the mineral rights, the Osage Indian Tribe.

ECOSYSTEM STRESSES

Fire suppression and prescribed burns that only poorly mimic natural fires may lead to woody encroachment or shifts in species composition. Cattle grazing, as opposed to bison grazing, may also lead to a shift in species composition. Both stresses used to impact the tallgrass prairie on the Preserve, and still affect neighboring properties. However, the natural fire-bison regime is currently being restored on the Preserve. The threat of an accidental discharge of oil or salt water from oil wells poses a potential threat to the Preserve.

PROJECT DESCRIPTION

As early as the 1930s, the National Park Service recognized that tallgrass prairies were not protected in a large enough area to recreate a functioning tallgrass ecosystem. Since the only sizable tracts of tallgrass prairie could be found in the Flint and Osage Hills of Kansas and Oklahoma, subsequent efforts by the National Park Service and conservation organizations focused on these states. These efforts collapsed with the failure of a bill proposing a Tallgrass National Preserve in Osage County, Oklahoma.

In consultation with an interdisciplinary team of experts, The Nature Conservancy (TNC) realized that a tallgrass preserve area should encompass a watershed, and should be large enough to support a genetically viable bison herd. In 1989 this realization led to the purchase of the Barnard ranch (a 29,000-acre parcel) by TNC. Additional acquisitions have since enlarged the Preserve to 37,000 acres.

After the prairie was allowed to rest for several years, TNC initiated management in 1993. The overall management goal is to restore the full complement of ecological processes. This involves the recreation of the fire-bison interaction, resulting in a dynamic landscape patch mosaic. Prescribed burns have been conducted in a manner intended to mimic presettlement burn patterns. Presettlement grazing patterns have been replicated through the reintroduction of an American bison herd on an initial 5,000 acres of the Preserve.

OKLAHOMA TALLGRASS PRAIRIE PRESERVE -- continued

While the herd builds itself up, additional grazing pressure is exerted by cattle on 24,000 acres.

TNC has worked diligently to gain the trust of local oil producers, the Osage Agency, the Bureau of Indian Affairs, and ranchers. Non-interference with oil production, cooperation in fire management and wildfire suppression, and the maintenance of a disease-free bison herd have all contributed to the development of this trust.

PRESENT STATUS & OUTLOOK

Although fire and bison have been reintroduced, only parts of the Preserve are currently subjected to these natural forces. These will be restored to the entire Preserve over the next 10 years.

Factors Facilitating Progress

In this area of the country, large ranches do not come up for sale

often. Finding a suitable tract of high quality tallgrass prairie for sale was a major factor in the success of this project. Also very helpful was the national attention that the project received, leading to the raising of \$15 million in private funds. According to TNC, after the controversial and unsuccessful efforts of the federal government to create a National Preserve, only a private fundraising effort by TNC was possible.

Furthermore, the expertise of the interdisciplinary team, the involvement of local people, and the tremendous dedication of many individuals has been very important.

Obstacles to Progress

Although the \$15 million fundraising goal was reached eventually, this effort was not always easy. Furthermore, the \$3 million endowment for manage-

ment expenses will probably not be sufficient to sustain the project. Restoring and managing a large-scale fire-bison regime is a very expensive enterprise, requiring perpetual institutional support. So far, it has involved obtaining equipment and training for prescribed burns, as well as obtaining a bison herd and building a bison corral and fences.

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