

GMP Dynamic Sourcebook - Appendix C: Examples of Legal Requirement Sections

C.1 Boundary Adjustments and Land Protection Criteria

Excerpt from the Badlands NP GMP

The National Park and Recreation Act of 1978 (16 USC 1a-7) directs the National Park Service to consider, as part of a planning process, what modifications of external boundaries might be necessary to carry out park purposes. Subsequent to this act, Congress also passed Public Law 101-628, the Arizona Desert Wilderness Act. Section 1216 of this act, codified at 16 USC 1a – 12, directs the secretary of the interior to develop criteria to evaluate any proposed changes to the existing boundaries of individual park units. 16 USC 1a-13 calls for among other things the National Park Service to consult with affected agencies and others regarding a proposed boundary change, and to provide a cost estimate of acquisition cost, if any, related to the boundary adjustment. The legislation also requires that a statement on the relative priority of acquisition of each parcel be provided.

These legislative provisions are implemented through *Management Policies*, which state that the National Park Service will conduct studies of potential boundary adjustments and may make boundary revisions as follows:

- To protect significant resources and values, or enhance opportunities for public enjoyment related to the purposes of the park
- To address operational and management issues, such as the need for access or the need for the boundaries to correspond to logical boundary delineations such as topographic or other natural features or roads, or
- Otherwise protect park resources critical to fulfilling park purposes

Two additional criteria must be met if the acquisition would be made using appropriated funds, and not merely a technical boundary revision; the criteria set forth by Congress at 16 USC 4601-9(c)(2) must be met. NPS *Management Policies* (2001), section 3.5, states the following criteria:

- The added lands will be feasible to administer, considering their size, configuration, ownership, and hazardous substances, costs, the views of and impacts on local communities and surrounding jurisdictions, and other factors such as presence of exotic species
- Other alternatives for management and resource protection have been considered and are not adequate

During the course of the planning process, three areas have been identified as potential additions to Badlands National Park. These additions are the Dougan Property, Kudnra /USFS property, and Prairie Homestead. The following is a review of the criteria for boundary adjustments as applied to Badlands National Park. This review is included as supporting documentation for the alternatives, which includes a recommendation for boundary changes in the North Unit of the park.

This plan does not address the legislative requirement to provide a cost estimate for the boundary adjustment nor does it include the relative priority for acquisition. However, the legislative proposal for the boundary adjustment and accompanying support materials would include both of these requirements.

Dougan Property

Description of the Property

The property is approximately 4,500 acres adjacent to Badlands National Park in Pennington County, South Dakota. The property is along the western boundary of the North Unit of the park and is immediately adjacent to the park's designated wilderness. The property is currently owned by Danny Dougan, a local rancher. These lands were originally included in the monument boundary but were removed by Congress in 1952 and 1957 (Mattison and Grom, 1970). The boundary adjustments were made by Congress because these were private lands and at that time the owners of this land were not willing sellers. Congress was also reducing the cost of land acquisition for the monument. The current owner of the land is interested in seeing his lands added to the park.

Criteria: To protect significant resources and values, or opportunities for public enjoyment related to the purposes of the park.

One of the purposes of Badlands National Park is to preserve the flora, fauna, and natural processes of the mixed grass prairie ecosystem. The Dougan property includes significant tracts of mixed grass prairie, which provides habitat to wildlife species of special concern in the Badlands. The conversion of the Great Plains for agriculture has severely limited habitat for many of these species that the park currently supports. For some of these species, such as the black-footed ferret, the park lacks adequate land to support and perpetuate the species.

Prairie. Most of Dougan property remains in a western wheatgrass native prairie community. Preserving an additional 4,000 acres of native prairie plant communities would be a significant outcome of NPS acquisition and management of the property.

Most rare plant species in the Badlands are found in uncommon or unique habitats associated with the Badlands erosional features and outcroppings. While there have been no surveys of the property, it is likely that the Badlands features on the property support rare plant species populations.

Black-footed Ferrets and Black-tailed Prairie Dogs. This property supports nine small prairie dog colonies totaling 116 acres. Two of these towns are within ½-mile of the largest prairie dog colony within the park, referred to as the Kocher Flats complex, which was a reintroduction site for the endangered black-footed ferret in 1997, 1998, and 1999. Wild-born black-footed ferrets in the park have been documented every year since releases began. With expansion of the ferret population on Kocher Flats, individual ferrets dispersed into smaller adjacent prairie dog colonies. Ferrets have been documented utilizing available prairie dog habitat on the Dougan property since 1999, with a minimum of two wild-born litters produced there since that time. However, the current owner advised the park that lethal control of prairie dogs was necessary for cattle range management. The landowner allowed the Park Service to capture the ferrets and translocate them back into the park. Due to the topography of the area the Dougan property represents the only area for significant expansion of the Kocher Flats prairie dog complex and expansion of ferret habitat.

Prairie dog colonies provide den sites, escape cover, and prey for a variety of grassland wildlife species. Studies on the importance of prairie dog colonies to the grassland ecosystem, combined with range-wide eradication programs and loss of habitat, led to a recent petition to the U.S. Fish and Wildlife Service for listing the black-tailed prairie dog as threatened. The current status of this petition is that black-tailed prairie dogs are “warranted but precluded” from federal listing. Several western states, including South Dakota, are giving prairie dogs new management attention. Based on vegetation, soil, and slope characteristics, the Dougan property has the potential to support more prairie dog acreage than is currently present (because of control efforts). If the current prairie dog colonies (116 acres) on the Dougan property (4,500 acres) were allowed to expand to a minimum of 10% landscape coverage, it would support approximately 450 acres of prairie dogs. Density estimates of prairie dog colonies within Badlands National Park in 2002 were a mean of 19.4 prairie dogs/acre. These 450 acres of colonies on the Dougan property would thus support about 8,700 prairie dogs. The potential of prairie dog colonies to support black-footed ferrets at a given site is evaluated by the size of the colony, the proximity of the colony to other large colonies, and the density of prairie dogs on the colony. With the above scenario of 450 acres of prairie dogs on the Dougan property, there would be available habitat for five to six ferrets or one to two ferret family groups.

This potential ferret habitat would obviously increase with an increase in the acres of prairie dogs. It is realistic to expect that prairie dogs could expand to occupy 500 to 2,000 acres of the Dougan property. Under that scenario, and with similar densities as found within the park, up to 38,000 prairie dogs could populate the property, which could then support 20 to 24 ferrets or four to six ferret family groups dispersing out from Kocher Flats. Thus, addition of the property to the park would have significant positive impacts to the black-footed ferret population in the Conata Basin/Badlands Recovery Area.

Swift Fox. In the fall of 2003 the park began a swift fox restoration effort by releasing 30 wild fox from Colorado. All the fox were released in the park, along the northern boundary. Since release of the fox, telemetry has located fox outside the western side of the park, near the Dougan property. The property is good swift fox habitat and could be important to fox recovery in the Badlands area. With future releases planned, the National Park Service would release fox on the property if acquired.

Bison. Bison have been in Badlands National Park since 1963, when the reintroduced population numbered 53 animals. The present population is approximately 900 animals representing approximately ½ of the ecological carrying capacity of approximately 60,000 acres of the Badlands Wilderness Area and approximately 10,000 acres of nonwilderness prairie that constitutes the park’s bison range. One of the critical limiting factors to the park’s carrying capacity is the availability of water in the Sage Creek portion of the wilderness area. The Dougan property contains at least 15 additional water sources (stock ponds) beyond the western edge of the wilderness. These water sources would be easy to access and maintain because they are outside the wilderness and near improved roads. Considering the addition of range and water resources, the park’s bison herd could conservatively increase to 1,000 to 1,500 with the purchase of this property.

Paleontological Resources. Badlands National Park was established because of its unique geologic landforms and impressive fossils. A report accompanying the park’s enabling legislation describes the purpose of the monument as “to preserve the scenic and scientific values of a portion of the White River Badlands and to make them accessible for public enjoyment and inspiration.” Also described were “vast beds of vertebrate fossil remains...which appear in great variety. The whole area is a vast storehouse of the biological past...”

Based on the geologic map created in 1976, the Brule Formation of the White River Group occurs throughout much of the Dougan property. It outcrops in a series of long sinuous banded ridges that form a boundary around the edge of the property. Contained within the Brule Formation are 30 million-year-old fossil mammals, birds, and reptiles. For over 150

years, scientists throughout the world have come to western South Dakota to study these magnificent fossils. Both the rocks and fossils preserved within the White River Badlands provide important information about ancient climate and mammal evolution from 30 million years ago. It is likely that such fossils exist in much of the Dougan property.

Because of the great significance of the fossils and geology, protection of the Dougan property directly adjacent to the park would be a great contribution to the scientific community. Additional fossil-rich areas would be made available to researchers studying paleontology and geology in the park.

Wilderness. Another purpose of Badlands National Park is to preserve the Badlands wilderness area and associated wilderness values. The Dougan property is adjacent to the western edge of the Badlands wilderness area. Currently the wilderness area is only accessible from Sage Creek campground on the north and Highway 44 on the south. This property also would provide additional access for visitors, which would enhance opportunities for the public to enjoy this part of the park. Due to the expansive vistas within the Badlands wilderness, any development on the Dougan property would be visible from much of the wilderness and would thus detract from those wilderness values related to untrammeled viewsheds. Acquisition by the Park Service would protect these viewsheds.

Criteria: To address operational and management issues, such as the need for access or the need for the boundaries to correspond to logical boundary delineations such as topographic or other natural features or roads.

Access. The property provides critical access to the western portion of the Sage Creek Unit of the Badlands wilderness area. The current landowner has allowed NPS staff to access the wilderness through the property. If the property were sold it is possible that the National Park Service would no longer have access through it. This access has been critical to black-footed ferret reintroduction and monitoring in the Kocher Prairie Dog Town complex. NPS ownership of the property would ensure continued access to this complex.

The current landowner also has allowed NPS staff to access the park through the property to control weeds. Several Canada thistle infestations targeted for treatment are most easily accessed from this property. Loss of access would extend travel times for the responding crews, reducing the park's effectiveness in treating these populations.

Fire Management. The Dougan property allows some of the only access for wildland fire suppression and prescribed burning along the western boundary of the park. The current owner has been most accommodating in the past, granting access for managing prescribed burns on the western edge of the Badlands wilderness area. Access has also been critical for conducting prescribed fires in that portion of the wilderness. Access allows NPS crews into the wilderness boundary for holding fires within the park.

The NPS Fire Effects Monitoring team has also been granted access across the property to monitor post-burn vegetation plots. The water sources on Dougan's property would provide dip sites for helicopter buckets if a fire needed to be controlled in the wilderness area. Continued access across this property is very important to the success of the park fire management program.

Wilderness Management. The property provides critical access to the western portion of the Sage Creek Unit of the Badlands wilderness area. The current landowner has allowed NPS staff to access the wilderness through the property. Loss of access would increase travel times for NPS staff working on wilderness management issues.

Criteria: The added lands will be feasible to administer, considering their size, configuration, ownership, and hazardous substances, costs, the views of and impacts on local communities and surrounding jurisdictions, and other factors such as presence of exotic species.

The recommended boundary addition would be feasible for the Park Service to manage and would not substantially add to the NPS workload to manage these lands. The added lands would create a block of land contiguous with the existing park boundary.

These lands are currently private lands and NPS acquisition would reduce local tax revenue for Pennington County. Payment in lieu of taxes would mitigate this impact. Acquisition of these lands has been discussed in public meetings, and local communities have not raised concerns about the loss of tax revenue or other impacts.

There are no known hazardous substance issues associated with the parcel, and appropriate hazardous material surveys would be conducted prior to acquisition.

Criteria: Other alternatives for management and resource protection have been considered and are not adequate.

The alternative to federal acquisition is the continuation of private ownership. The current landowner has been very cooperative in working with the National Park Service by providing access for management activities. The current land use has been primarily grazing, which has allowed the lands to remain relatively intact. However, this arrangement and cooperation could be lost if these lands are sold to another owner.

These properties are located in an area that has had limited interest by land conservation organizations. The Buffalo Gap National Grasslands has been acquiring lands in the area, but these have been through land exchanges that have focused on consolidating the lands the U.S. Forest Service manages. The current property owner is not interested in exchanging these lands for other lands currently being managed by the U.S. Forest Service. No other state or federal agencies have expressed an interest in protecting the resources on this property.