

3 Alternatives



Camie Dixon/USFWS

Blooming purple coneflower on native prairie unit.

This chapter describes the management alternatives being considered for Sullys Hill National Game Preserve. Alternatives are different approaches to planning that are designed to achieve the refuge’s purposes, vision and goals, the mission of the Refuge System, and the mission of the U.S. Fish and Wildlife Service. Alternatives are developed to address the substantive issues, concerns, and problems identified by the Service, the public, and government partners during public scoping, and throughout the development of the draft plan.

These alternatives represent different approaches for permanent protection and restoration of fish, wildlife, plants, habitats, and other resources. The planning team assessed the planning issues identified in chapter 2, the existing biological conditions, and external relationships affecting the refuge. This information contributed to the development of the alternatives. All of the alternatives incorporate concepts and approaches intended to achieve the goals outlined in chapter 2 and are discussed in terms of how they would meet each goal. Each alternative was evaluated according to how it would advance the vision and goals of the refuge and the Refuge System, and how it would address the planning issues. Alternative A, the

no-action alternative, describes ongoing refuge management activities. Although the no-action alternative might not meet all of the CCP goals, it is provided as a basis for comparison with the other alternatives.

3.1 ALTERNATIVES DEVELOPMENT

A public meeting was held at the refuge visitor center in Fort Totten, North Dakota, on June 29, 2006. In addition, a newsletter and comment form were mailed out. When the scoping period ended on August 1, 2006, the planning team had received over 183 written comments. The comments identified biological, social, and economic concerns regarding refuge management.

3.2 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

After extensive analysis and discussion, the Service did not consider any alternatives other than the three that are fully developed in this chapter.

3.3 ELEMENTS COMMON TO ALL ALTERNATIVES

There are several common elements among all the alternatives being considered. For example, all alternatives, including the no-action alternative, would emphasize the same priority species or protect endangered species.

This section identifies key elements included in the CCP among all alternatives considered. Each alternative would incorporate the following:

- The Service would ensure that refuge management activities comply with all other federal laws and regulations that provide direction for managing units of the Refuge System.
- Each alternative would attempt to eradicate invasive species through an integrated pest management (IPM) approach including biological, chemical, and mechanical treatment methods.
- No adjacent landowners would be adversely impacted by any action taken by the Service without a mutual agreement and adequate compensation.

All three alternatives include cultural resource evaluations in response to activities that constitute an undertaking under Section 106 of the National Historic Preservation Act (NHPA). There would be compliance with NHPA and other pertinent cultural resource laws and, when possible, resources that are eligible to the National Register of Historic Places would be protected.

3.4 DESCRIPTION OF ALTERNATIVES

ALTERNATIVE A: NO ACTION (CURRENT MANAGEMENT)

Alternative A, the no-action alternative, reflects the current habitat management of the refuge. It provides the baseline against which to compare the other alternatives. It is also fulfills the requirement in the National Environmental Policy Act that a no-action alternative be addressed in the analysis process.

Key elements of alternative A include the following:

- Ungulates would be maintained at historical levels (25–35 bison, 20–30 elk and 30–50 white-tailed deer). This is a deviation from the existing “Fenced Animal Management Plan” (Veilkly 1984). Season-long grazing with infrequent prescribed fire would

continue, limiting forest regeneration and resulting in continued decline of native prairie. Available habitat for forest-interior breeding birds would be limited.

- Herd health history would continue to be collected and shared with applicable state and federal agencies. The environmental education and interpretation program would continue to take requests from a variety of organizations, schools (within a 90-mile radius), state, and other federal agencies wanting to participate in various teacher or Service staff-led on-site conservation programs. Visitor use would be limited to the seasonal auto tour route, nature trails, and education and visitor center depending on staff and volunteer availability.
- There would continue to be minimal law enforcement presence except during scheduled public use programs. Recreation fee compliance would continue to be based on a voluntary honor system, and the compliance rate would remain an estimated 40%. There would be no on-site maintenance staff and refuge facilities would be maintained on an “as needed” basis as staff is available. The effect on cultural resources would be evaluated in response to activities that constitute an undertaking under Section 106 of NHPA. There would be compliance with NHPA and other pertinent cultural resource laws and, when possible, resources that are eligible to the National Register of Historic Places would be protected.
- Only one GS-11 Park Ranger would be assigned to manage the refuge.

ALTERNATIVE B

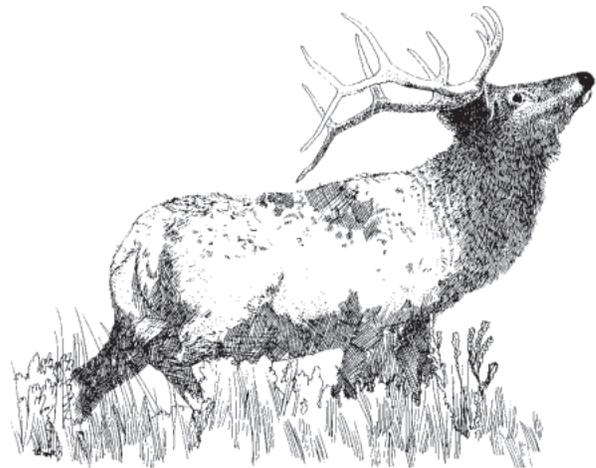
Habitat management under alternative B would begin to address reduced forest regeneration, which has resulted in reduced quality of habitat for forest-interior birds, by managing the uncontrolled browsing of bison, elk, and white-tailed deer within the big game forest. The environmental education program would be expanded to provide additional opportunities and improve quality, while providing a consistent message of protecting wetland and grassland habitats. Visitor safety and facility security would improve as a result of additional staffing, cooperative agreements with local law enforcement agencies, regular maintenance, and installed fire and security systems.

Key elements of alternative B include the following:

- Maintain ungulates as per the “Fenced Animal Management Plan” (25–40 bison; 15–25 elk; 10–30 white-tailed deer) and establish 80 acres of woodland restoration units using various management tools including exclusion fences and chemical, biological, and mechanical techniques (such as tillage and prescribed fire) for the benefit of forest-interior breeding birds.
- Visitors would be provided seasonal opportunities to view wildlife and learn about the refuge. All on-site educational programs (for up to 6,000 students) and special events would be developed and delivered ensuring they garner support and appreciation for the refuge, North Dakota’s wetland and grassland resources, and the conservation role of the Refuge System. An interactive habitat diorama display would be constructed in the education and visitor center to demonstrate the inter-relationship of North Dakota’s grasslands, wetlands, agricultural lands, and forest.
- There would be an increased law enforcement presence, particularly during peak visitor-use days. Background checks on volunteers would be initiated to ensure the safety of students, staff, and visitors. A recreation fee collection booth would be constructed and randomly staffed, and routine patrols and fee compliance monitoring would be initiated due to the increased availability of law enforcement. There would be compliance with NHPA and other pertinent cultural resource laws and National Register eligible properties would be protected when possible. In addition, a sensitivity model indicating areas with a high potential for cultural resources would be established and those areas would be surveyed.
- One GS-9 environmental education specialist, a GS-9 park ranger (a full time officer position shared with Devils Lake WMD Complex), and a career seasonal WG-6 maintenance worker would be recruited.

ALTERNATIVE C (PROPOSED ACTION)

Habitat management under alternative C would address (1) reduced forest regeneration due to overbrowsing of captive bison, elk, and white-tailed deer; and (2) deterioration of native prairie as a result of season-long grazing and lack of fire. The environmental education program would be expanded to include additional on- and off-site opportunities. Visitor safety and facility security would be improved as a result of increased staffing, development of cooperative agreements with local law enforcement agencies, performance



Bull elk.

of regular maintenance, and installation of fire and security systems.

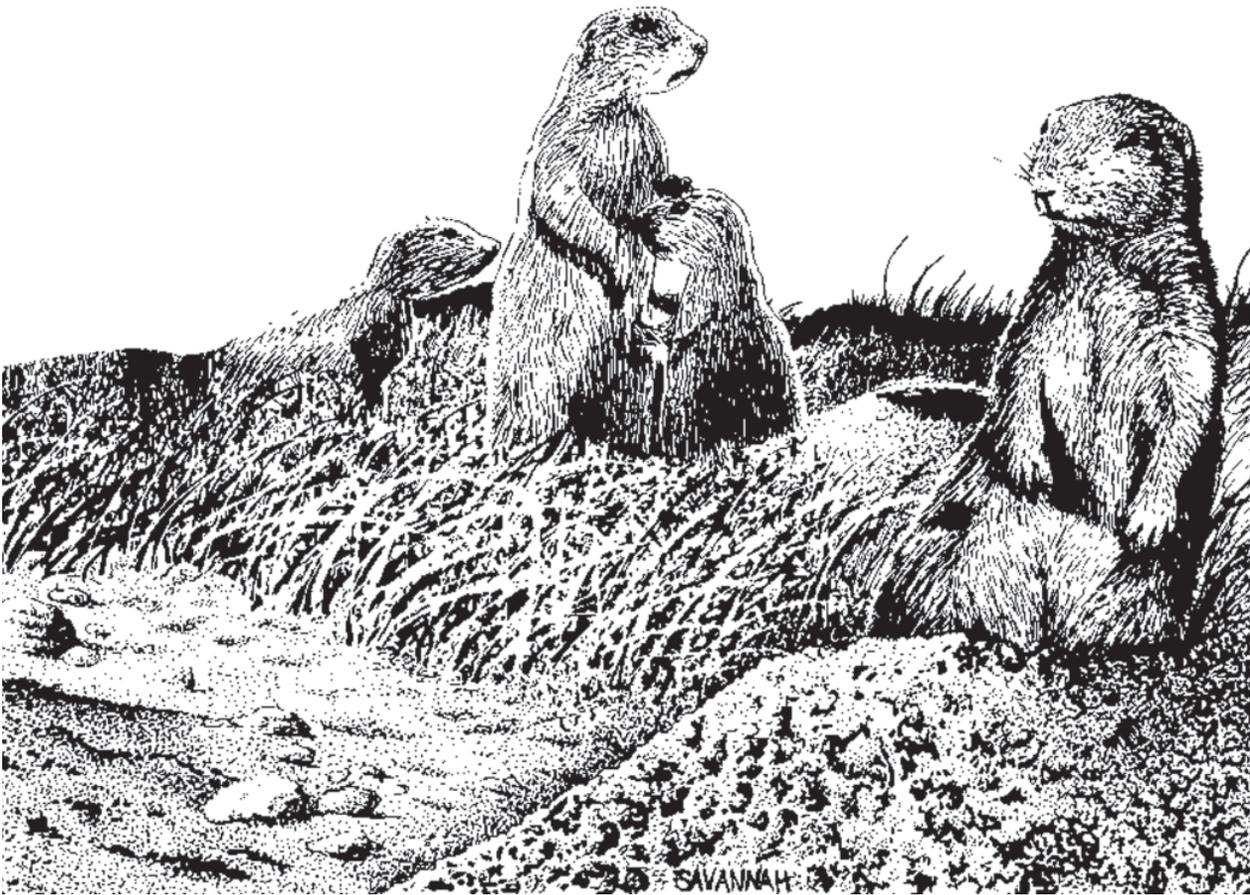
Key elements of alternative C include the following:

- Widespread restoration of native woodland (totally 80 acres) and prairie habitat by manipulating ungulate populations (≤ 20 bison, ≤ 18 elk, and ≤ 18 white-tailed deer) and use of various management tools including exclusion fences and chemical, biological, and mechanical techniques (such as tillage and prescribed fire) for the benefit of forest-interior breeding and grassland-nesting birds.
- The ungulate herd health program would take a more active disease surveillance and treatment approach, including timely introduction of ungulates to maintain genetic health.
- Selected hayland acres would be dedicated to migratory bird habitat through restoration to a diverse native herbaceous prairie vegetation.
- There would be an increase in delivery and programming of both on- and off-site youth environmental education programs for up to 7,500 students. Development of a formal wetland and grassland conservation curriculum for targeted grade levels would foster a living conservation ethic in the Devils Lake Basin. Staff would incorporate modern concepts of environmental education by exposing children to the five senses of learning. Emphasis would be placed on developing education partnerships with Spirit Lake Nation schools and agencies.

- Visitor, facility, and wildlife safety would be improved beyond levels in alternative B to include a volunteer management plan, regular routine patrols during peak and off-peak public use, and an automated fee gate.
 - In compliance with historic preservation laws, protection of eligible sites would occur when possible. In addition, working with other federal, state, and tribal agencies and other organizations, the refuge would be systematically surveyed for cultural resources over the next 15 years.
 - One GS-9 environmental education specialist, a GS-9 park ranger (a full-time officer position shared with Devils Lake WMD Complex), a GS-9 wildlife biologist, and a WG-6 maintenance worker would be recruited to expand, develop, and conduct biological, visitor services, law enforcement, and maintenance programs.
- In compliance with historic preservation laws, protection of eligible sites would occur when possible. In addition, working with other federal, state and tribal agencies and other organizations, the refuge would be systematically surveyed for cultural resources over the next 15 years.
- One GS-9 environmental education specialist, a GS-9 park ranger (a full-time officer position shared with Devils Lake WMD Complex), a GS-9 wildlife biologist, and a WG-6 maintenance worker would be recruited to expand, develop, and conduct biological, visitor services, law enforcement, and maintenance programs.

3.5 SUMMARY OF ALTERNATIVES

Table 2 provides a summary of the three management alternatives under consideration in this CCP and the anticipated environmental consequences of each alternative.



Prairie dogs

Table 2. Summary of alternatives for the comprehensive conservation plan, Sullys Hill National Game Preserve, North Dakota

<i>Alternative A</i> (Current Management)	<i>Alternative B</i>	<i>Alternative C</i> (Proposed Action)
Woodland Habitat Goal		
Manage for healthy native woodlands of various age classes and structure to provide habitat for migratory birds, in balance with bison, elk, and other indigenous wildlife.		
Woodland Habitat, Big Game Forest—Management Actions		
<p>Season-long grazing with infrequent prescribed fire would be used.</p> <p>Ungulates would be maintained at historic management levels (25–35 bison; 20–30 elk; and 30–50 white-tailed deer). This is a deviation from the existing “Fenced Animal Management Plan” (Veikley 1984).</p>	<p>Ungulates would be maintained as per the “Fenced Animal Management Plan” (25–40 bison; 15–25 elk; 10–30 white-tailed deer) (Veikley 1984).</p> <p>A total of 80 acres of woodland restoration units would be established using various management tools including exclusion fences and chemical, biological, and mechanical (such as tillage and prescribed fire) techniques.</p> <p>Fuels treatment (including prescribed fire or other mechanical means) would be used to reduce hazardous fuels.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Ungulate populations would be further reduced to a lower level (≤ 20 bison, ≤ 18 elk, and ≤ 18 white-tailed deer) to restore native woodland habitat outside of woodland restoration units.</p>
Woodland Habitat, Big Game Forest—Environmental Consequences		
<p>Season-long browsing would continue, limiting forest regeneration and the development of understory and midstory forest layers.</p> <p>Ungulates would continue to be maintained at historical population levels, perpetuating the degradation of forest layers. Available habitat for forest-interior breeding birds would be limited.</p>	<p>Woodland restoration units would provide additional habitat for forest-interior breeding birds and aid development of improved successful forest regeneration techniques.</p> <p>Reducing hazardous fuels would minimize threats to life and property on the refuge and the surrounding private lands.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Ungulate populations would be further reduced to levels that would allow for more understory and midstory growth in the entire woodland areas for the benefit of forest-interior breeding birds.</p>
Woodland Habitat, Lower Forest—Management Actions		
<p>Idleness and minimal prescribed fire would continue to be used.</p>	<p>Fuels treatment (including prescribed fire or other mechanical means) would be used to reduce hazardous fuels.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Forestry stand improvements would provide optimal age classes and structure for migratory bird habitat</p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Woodland Habitat, Lower Forest—Environmental Consequences		
The lower forest would continue to provide adequate habitat for forest-interior birds.	<i>Same as alternative A, plus the following:</i> Reducing hazardous fuels would minimize threats to life and property on the refuge and the surrounding private lands.	<i>Same as alternative B, plus the following:</i> Optimal habitat would be provided for migratory birds that utilize all levels of the forest structure.
Woodland Habitat, South (Isolated) Forest—Management Actions		
The forest would remain idle and susceptible to wildfires caused by arson.	Forest stands would remain idle but wildfires would be prevented and suppressed with assistance from the Eastern North Dakota Fire District. Fuels treatment (including prescribed fire or other mechanical means) would be used to reduce hazardous fuels.	<i>Same as alternative B, plus the following:</i> Forestry stand improvements would provide optimal age classes and structure for migratory bird habitat.
Woodland Habitat, South (Isolated) Forest—Environmental Consequences		
The area would continue to provide adequate habitat for forest-interior breeding birds.	<i>Same as alternative A, plus the following:</i> Reducing hazardous fuels would minimize threats to life and property on the refuge and the surrounding private lands.	<i>Same as alternative B, plus the following:</i> Optimal habitat would be provided for migratory birds that utilize all levels of the forest structure.
Woodland Habitat, Windbreaks on Hay and Native Units—Management Actions		
The only disturbance to the hay units would be wildfires caused by arson.	Wildfires would be prevented or actively suppressed with assistance from the Eastern North Dakota Fire District. Fuels treatment (including prescribed fire or other mechanical means) would be used to reduce hazardous fuels.	<i>Same as alternative B, plus the following:</i> The tree belt on the north side of the native prairie unit would be removed to create a more contiguous block of habitat for grassland-dependent migratory birds.
Woodland Habitat, Windbreaks on Hay and Native Units—Environmental Consequences		
Wildfires would continue to cause the tree rows to deteriorate and increase noxious weed invasion between, and adjacent, to the rows.	Wildfires would be reduced, allowing for increased sustainability of the tree rows and reduced noxious weed invasion. Reducing hazardous fuels would minimize threats to life and property on the refuge and the surrounding private lands.	<i>Same as alternative B, plus the following:</i> Removal of selected tree rows would increase the central core area of grasslands, benefiting grassland-nesting birds and decreasing fuels for wildfires.

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Woodland Habitat, Staff—Management Actions		
The only position assigned to the refuge would be one GS-11 park ranger.	<p><i>Same as alternative A, plus the following:</i></p> <p>A seasonal career biological science technician would assist with biological and other management programs.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>A GS-9 wildlife biologist with visitor services skills would be recruited to assist with biology, visitor services, and management programs.</p>
Woodland Habitat, Staff—Environmental Consequences		
Maintaining the current staffing level would prevent adequate management, monitoring, and research of refuge resources.	A seasonal biological science technician would allow for more data collection and implementation of proposed habitat improvements.	<p><i>Same as alternative B, plus the following:</i></p> <p>A full-time biologist would be able to independently collect needed data and conduct analysis resulting in a greater understanding of the refuge habitats and wildlife. This biologist would also greatly enhance the quality of biological information presented in student and other visitor programs.</p>

Table 2. Summary of alternatives for the comprehensive conservation plan, Sullys Hill National Game Preserve, North Dakota

<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Prairie Habitat Goal		
Maintain prairie plant communities representative of the historical mixed-grass prairie to support healthy populations of grassland-dependent migratory birds in balance with bison, elk and other indigenous wildlife.		
Prairie Habitat, Big Game Prairie—Management Actions		
<p>Ungulates would be maintained at historical management levels (25–35 bison; 20–30 elk; and 30–50 white-tailed deer) permitting season-long grazing.</p> <p>There would continue to be minimal control of invasive species and noxious weeds.</p> <p>There would be infrequent use of prescribed fire to enhance grasslands.</p>	<p><i>Same as alternative A, plus the following:</i></p> <p>To reduce overgrazing, ungulates would be maintained as per the “Fenced Animal Management Plan” (25–40 bison; 15–25 elk; 10–30 white-tailed deer) (Veikley 1984).</p> <p>Prescribed fire would be used to maintain and enhance native vegetative structure and composition.</p> <p>A rotational grazing program would be implemented using exclusion fences.</p> <p>Fuels treatment (including prescribed fire or other mechanical means) would be used to reduce hazardous fuels.</p> <p>Invasive plants, pests, and noxious weeds would be effectively controlled by chemical, biological, and mechanical techniques.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Grasslands would be managed and enhanced by further reducing ungulate populations (≤20 bison, ≤18 elk, and ≤18 white-tailed deer).</p>
Prairie Habitat, Big Game Prairie—Environmental Consequences		
<p>Undesirable plants, including invasive species, would increase.</p> <p>Loss of native grassland plant species and structure would make the area less attractive to migratory birds dependent on forest-edge habitat and other grassland-dependent wildlife and insects.</p> <p>There would be increased soil erosion, causing loss of nutrient-rich topsoil while increasing siltation in surrounding waters.</p> <p>Season-long grazing would reduce plant vigor and regrowth below a level necessary to sustain grazing ungulates, especially in dry years.</p>	<p>Reducing overgrazing would increase native grass and forb diversity.</p> <p>Invasive species, pests, and noxious weeds would be controlled, allowing for the restoration and enhancement of native plant species.</p> <p>Soil erosion would be reduced and topsoil stability would be improved.</p> <p>There would be increased plant vigor for ungulate grazing and wildlife use.</p> <p>Reducing hazardous fuels would minimize threats to life and property on the refuge and the surrounding private lands.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Lower levels of ungulates would further reduce overgrazing, creating a more representative historical mixed-grass prairie grassland structure within the enhanced native prairie area. This would create more desirable habitat for forest-edge and grassland-dependent birds.</p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Prairie Habitat, South (Isolated) Prairie—Management Actions		
<p>Management activities would include periods of rest and disturbance using occasional prescribed fire.</p> <p>Wildfires caused by arson would continue.</p> <p>There would continue to be minimal treatment of invasive species and noxious weeds.</p> <p>Woody vegetation would be controlled.</p>	<p>Prescribed fire would regularly be used to maintain and enhance native vegetative structure and composition and woody vegetation would be controlled.</p> <p>Wildfires would be prevented and suppressed and prescribed grazing would be used as a management tool.</p> <p>Invasive species, noxious weeds, and encroaching woodlands would be effectively controlled using chemical, mechanical, and biological techniques.</p> <p>Fuels treatment (including prescribed fire or other mechanical means) would be used to reduce hazardous fuels.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>This area would be used as a demonstration native prairie tract with regular monitoring activities and participation in region-wide research projects.</p>
Prairie Habitat, South (Isolated) Prairie—Environmental Consequences		
<p>Infrequent prescribed fire would provide some disturbance that would increase native grassland vegetation diversity.</p> <p>Wildfires caused by arson occurring at inappropriate stages of vegetative growth may actually increase invasive species such as smooth brome, Kentucky bluegrass, and noxious weeds. These nonnative species have the potential to out-compete the native plant species, creating a monotypic stand of grass that is less attractive to grassland-dependent birds.</p> <p>Controlling woody vegetation would reduce its encroachment into grassland habitats.</p>	<p>Prevention of wildfire fires would reduce the opportunity for invasive and noxious weed growth.</p> <p>Prescribed grazing and fire would be used as a tool which may decrease the spread of invasive species such as smooth brome grass and provide necessary disturbance to invigorate the growth of native plant species.</p> <p>Invasive species, encroaching woodlands, pests, and noxious weeds would be controlled, allowing for the restoration and enhancement of native plant species.</p> <p>Reducing hazardous fuels would minimize threats to life and property on the refuge and the surrounding private lands.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>The tract would provide a unique opportunity to research and monitor healthy native prairie in the northeastern mixed-grass prairie zone. This monitoring would serve as a baseline for grassland restoration efforts across the Devils Lake WMD Complex and the region.</p>

Table 2. Summary of alternatives for the comprehensive conservation plan, Sullys Hill National Game Preserve, North Dakota

<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Prairie Habitat, Hay Units—Management Actions		
<p>Units would be hayed annually.</p> <p>There would continue to be frequent wildfires caused by arson.</p> <p>Invasive plant species, pests, and noxious weeds would be controlled using chemical, mechanical, and biological techniques.</p>	<p>Grassland would be managed using rotational haying and wildfires would be prevented.</p> <p>Control of invasive plants, pests, and noxious weeds by chemical, mechanical, and biological techniques would continue.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Selected hayland acres would be restored to a diverse mixture of native herbaceous prairie vegetation.</p>
Prairie Habitat, Hay Units—Environmental Consequences		
<p>Annual haying of the unit would provide winter food for ungulates in the big game unit. However, because of the annual defoliation of the vegetation on this site, residual wildlife cover is limited.</p> <p>Wildfires caused by arson occurring at inappropriate stages of vegetative growth may actually increase invasive species.</p> <p>Invasive plant species, pests, and noxious weeds would be controlled, improving forage and reducing further spread to other refuge and neighboring lands.</p>	<p><i>Same as alternative A, plus the following:</i></p> <p>Ungulates would be provided adequate winter food, and improved residual cover would be available for wildlife on a rotating basis.</p> <p>Prevention of wildfire fires would reduce the opportunity for invasive and noxious weed growth.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Additional native habitat would be created primarily for migratory birds and other grassland-dependent native wildlife.</p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
<p>Wildlife Population Management Goal</p> <p>Carry out management practices that ensure healthy populations of Rocky Mountain elk, plains bison, and other indigenous wildlife species that exemplify the genetic integrity of historical prairie wildlife.</p>		
<p>Wildlife Population, Big Game Unit—Management Actions</p>		
<p>Maintain ungulates at historical management levels (25–35 bison; 20–30 elk; and 30–50 white-tailed deer). This is a deviation from the existing “Fenced Animal Management Plan” (Veikley 1984).</p> <p>Herd health history would be collected and shared with applicable state and federal agencies.</p> <p>Winter supplemental feeding would continue.</p> <p>Service staff would work collaboratively through the Service-wide bison initiative to conserve the genetic integrity of plains bison.</p> <p>Minimal prairie dog management would continue, allowing the town to expand.</p> <p>Regular boundary fence inspections and maintenance would continue.</p>	<p><i>Same as alternative A, except:</i></p> <p>Ungulates would be maintained per the “Fenced Animal Management Plan” (25–40 bison; 15–25 elk; 10–30 white-tailed deer) (Veikley 1984).</p> <p>The prairie dog population, a species introduced to the refuge in 1974 for educational purposes, would be confined to the original 1.5-acre town.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Ungulate populations would be maintained at ≤20 bison, ≤18 elk, and ≤18 white-tailed deer to encourage restoration of the refuge floristics that support migratory bird nesting and migration habit. These limits may be adjusted as new data and science, including the results of monitoring these restoration efforts, become available.</p> <p>Winter supplemental feeding would be reduced (grain, in particular) to improve herd health and habitat.</p> <p>The ungulate herd health program would take a more active disease surveillance, treatment, and prevention approach including timely introduction of ungulates to maintain genetic health.</p> <p>Facilities would be managed and technology would be used to maximize bison genetic integrity.</p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Wildlife Population, Big Game Unit—Environmental Consequences		
<p>Current levels of overgrazing and overbrowsing would continue, and prairie and forest habitat would provide reduced benefits to targeted migratory birds.</p> <p>Monitoring herd health history would allow the refuge to react quickly to any health issues found in refuge ungulates.</p> <p>At current levels, winter supplemental feeding would put animals at higher risk for certain diseases and parasites.</p> <p>The refuge would continue to serve as a national resource for maintaining the genetic integrity of Service plains bison herds.</p> <p>Prairie dog populations would continue to expand to adjacent grassland areas, negatively impacting habitats.</p> <p>A functional boundary fence would maintain refuge barriers, reducing trespass, disease transmission, and animal escape.</p>	<p><i>Same as alternative A, except:</i></p> <p>Reduced ungulate numbers would decrease overgrazing and overbrowsing and provide improved habitat for migratory birds.</p> <p>The prairie dog population would not expand beyond the original 1.5-acre boundary, protecting adjacent grassland areas, while visitors would continue to view them safely.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Lower levels of ungulates would further increase refuge floristics that support migratory bird nesting and migration habitat.</p> <p>Reduced supplemental feeding (grain in particular) would likely result in improved health of ungulates, specifically elk.</p> <p>Disease episodes would be reduced and prevented. Periodic ungulate introduction would maintain the current genetic health of both the refuge and other Service plains bison.</p> <p>Genetics of each bison on the refuge would be known and serve as the basis for transfer of animals to other refuges.</p> <p>Using the latest techniques and methods would assist in protecting the genetic integrity of both the refuge and other Service plains bison herds.</p>

Table 2. Summary of alternatives for the comprehensive conservation plan, Sullys Hill National Game Preserve, North Dakota

<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Environmental Education and Outreach Goal		
Deliver quality, interactive environmental education programming to regional schools, communities, organizations, members of the Spirit Lake Nation, and local governments to garner support and appreciation for Sullys Hill National Game Preserve, North Dakota’s wetland and grassland resources, and the conservation role of the U.S. Fish and Wildlife Service.		
Environmental Education and Outreach, Youth Environmental Education—Management Actions		
<p>Requests would be taken from a variety of organizations, schools (within a 90-mile radius), state, and other federal agencies wanting to participate in various teacher or refuge staff-led on-site conservation programs.</p> <p>Opportunistic off-site programs presented at local schools would continue.</p>	<p><i>Same as alternative A, plus the following:</i></p> <p>Recruit an environmental education specialist to assist educators in the development, delivery, and review of all on-site youth educational programs, ensuring that most, if not all, meet state and local education standards. These programs would be designed to expose children to the wonders of nature while garnering support and appreciation for the refuge, North Dakota’s wetland and grassland resources, and the conservation role of the Refuge System.</p> <p>All education programs presented on the refuge by other partners would support the refuge’s environmental education themes of promoting wetland and grassland conservation.</p> <p>Limited off-site programs to local schools and youth organizations would be presented.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Refuge staff would increase delivery and programming of on-site youth environmental education programs. Staff would incorporate the modern concepts of environmental education by exposing children to the five senses of learning.</p> <p>Refuge staff would plan and initiate regular off-site programming to local schools.</p> <p>In coordination with the school system, refuge staff would develop a formal wetland and grassland conservation curriculum for targeted grade levels (meeting local and state education standards) which fosters a conservation ethic. The semester-long curriculum would be delivered off-site but would be complemented by the outdoor classroom and facilities of the refuge and the Devils Lake WMD Complex. Pre- and post-evaluations would be incorporated into the curriculum.</p>

Table 2. Summary of alternatives for the comprehensive conservation plan, Sullys Hill National Game Preserve, North Dakota

<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Environmental Education and Outreach, Youth Environmental Education—Environmental Consequences		
<p>There would continue to be a lack of input into programs presented by outside partners, resulting in missed opportunities to educate the public about and garner support for the Refuge System, Sullys Hill National Game Preserve and its purposes, and the Service’s mission of promoting wetland and grasslands conservation.</p> <p>While current off-site refuge programs are beneficial, they would remain limited and the refuge would miss opportunities to educate area students about the refuge and the mission of the Refuge System.</p>	<p>An effective outreach and education program would support state and local education standards, affecting a larger number of students.</p> <p>Through partnerships, there would be additional opportunities to educate youth about the importance of preserving wetland and grassland habitat.</p> <p>Limited off-site programs would provide additional opportunities to educate area youth about the conservation of wetlands and grasslands.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>On- and off-site programs developed and presented cooperatively by teachers and refuge staff would have the greatest effect on educating students about the Refuge System, the refuge, and wetland and grassland preservation. In addition, expanding programs off-site would reach a larger number of students in the surrounding area. Evaluations would help teachers and staff gauge the effectiveness of programs.</p>
Environmental Education and Outreach, Adult and Family Environmental Education—Management Actions		
<p>Annual events, including Birding Festival, Winterfest, and participation in the Chautauqua Program, would be completely dependent upon volunteers, annual staff, and funding levels.</p> <p>Visitor use would be limited to the seasonal auto tour route, nature trails, and education and visitor center, depending on staff and volunteer availability.</p> <p>Opportunistic press releases, radio and television coverage, and on- and off-site presentations would continue.</p>	<p>All programs and annual events would continue and be focused on garnering support and appreciation for the refuge, North Dakota’s wetland and grassland resources, and the conservation role of the Refuge System.</p> <p>The education and visitor center would be open year-round.</p> <p>Regularly developed press releases, radio and television programming, and on- and off-site presentations would be provided.</p> <p>Additional volunteers and interns would be recruited to keep the education and visitor center open during key visitation times.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Scheduled conservation programming would be conducted for adults and families throughout the year.</p>

Table 2. Summary of alternatives for the comprehensive conservation plan, Sullys Hill National Game Preserve, North Dakota

<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Environmental Education and Outreach, Adult and Family Environmental Education— Environmental Consequences		
<p>There would continue to be no guarantee that the two current annual events would continue. This would result in a net loss of reaching and educating over 2,500 adults and children annually.</p> <p>Seasonal visitation would continue to result in a loss of opportunities to educate and interact with the area's many winter visitors. Also, the current independent visitor experience affords no method to monitor and measure if the refuge's education and interpretation goals are being met.</p>	<p>Additional staff and resources would ensure the current annual events continue and expand, reaching even more visitors, while ensuring that a consistent message of wetland and grassland conservation is presented.</p> <p>Regular contact with the media would ensure that the public is kept informed on refuge programs and visitor services activities.</p> <p>Providing and maintaining more consistent education and visitor center hours would eliminate some frustrations expressed by disappointed visitors, while providing for additional education opportunities.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Offering well-organized and consistent year-round programs would give adults and children multiple opportunities to learn about the refuge and its resources and expose them to conservation ethics in their communities and homes.</p>
Environmental Education and Outreach, Partnerships with Teachers— Management Actions		
<p>On- and off-site presentations and interaction with local teachers and administrators would continue on an opportunistic basis.</p>	<p>Facilities and general conservation message programs for teacher workshops such as "Project Wild" and "Project Learning Tree" would be provided.</p> <p>Teaching kits and a lending library would be provided and would focus on the natural resources of Sullys Hill National Game Preserve, North Dakota wetlands and grasslands, and the heritage of the Refuge System.</p> <p>A teacher resources website would be created, detailing available materials, programs, and facilities.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Partnerships with teachers would be established in order to develop wetland and grassland curriculum that would meet grade requirements for state and local education standards.</p> <p>In coordination with the school system, a formal wetland and grassland conservation curriculum for targeted grade-level teachers would be developed. The semester-long curriculum would be delivered off-site but would be complemented by the outdoor classroom and facilities of the refuge and the Devils Lake WMD Complex. Pre- and post-evaluations would be incorporated into the curriculum.</p>

Table 2. Summary of alternatives for the comprehensive conservation plan, Sullys Hill National Game Preserve, North Dakota

<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Environmental Education and Outreach, Partnerships with Teachers— Environmental Consequences		
<p>There would continue to be a loss of opportunities to develop environmental education programs that schools can utilize to achieve curriculum objectives and meet state and local education standards. This would result in a continued loss of opportunities to reach and educate more students in the surrounding communities through consistent in-school programs.</p>	<p>Actively pursuing relationships with area teachers and providing them with specific programs and tools would target a larger number of students with a more consistent environmental education message.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Working more closely with teachers and students while developing refuge and state-specific environmental education programs would ensure that the new programs meet curriculum needs, while ensuring the maximum number of students are reached with a consistent, relevant message focused on wetlands, grasslands, and the conservation role of the Refuge System.</p>
Environmental Education and Outreach, Spirit Lake Nation—Management Actions		
<p>American Indian programming at annual events would continue.</p> <p>Spirit Lake Nation fire personnel would be involved in all fire-specific training provided at the refuge.</p>	<p><i>Same as alternative A, plus the following:</i></p> <p>Adult and youth conservation education programming would be used for educating Spirit Lake Nation members about the goals and purposes of the refuge and the Refuge System. Service programs could compliment Spirit Lake Nation’s own land management and visitor programs.</p> <p>An educational kit would be developed in cooperation with Spirit Lake Nation tribal members to detail their culture, traditional uses of natural material, and natural resource conservation.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Partnerships with Spirit Lake Wildlife Department and Cankdeska Cikana Community College would be fostered to provide opportunities for American Indian students interested in conservation-related fields. Students would be recruited through the Student Career Experience Program to provide training and opportunities for future employment.</p> <p>Cankdeska Cikana Community College wildlife students would be invited to participate in active wildlife conservation practices at the refuge.</p>

Table 2. Summary of alternatives for the comprehensive conservation plan, Sullys Hill National Game Preserve, North Dakota

<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Environmental Education and Outreach, Spirit Lake Nation—Environmental Consequences		
<p>Visitors would continue to have an opportunity to learn about the culture and traditions of the Spirit Lake Nation and other Midwestern tribes.</p> <p>There would be additional education opportunities for Spirit Lake Nation fire staff while improving fire management techniques on Spirit Lake Nation lands.</p>	<p><i>Same as alternative A, plus the following:</i></p> <p>There would be a greater understanding of the vision and goals of both the refuge and Spirit Lake Nation. This understanding would serve as a foundation for developing future partnerships to achieve mutual interests.</p> <p>A more developed cultural program would reach more visitors and students, creating a greater understanding of Spirit Lake Nation’s history and traditions.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Opportunities would be expanded to recruit American Indian students for local and national employment within the Refuge System.</p>
Environmental Education and Outreach, “Friends Group” and Volunteers—Management Actions		
<p>The refuge would continue to be dependent on a small, but dedicated volunteer “friends group” to ensure that most of the refuge visitor services programs are carried out.</p> <p>The “friends group” would continue coordinating annual festivals, orient visitors to the refuge, foster community support, and conduct local outreach through media contacts.</p> <p>“Friends group” volunteers would continue to staff the education and visitor center on a limited basis.</p>	<p><i>Same as alternative A, plus the following:</i></p> <p>Refuge staff would assist the “friends group” in staffing the education and visitor center, preparing grant proposals, and developing community partnerships.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>The lead park ranger and “friends group” would coordinate and actively recruit volunteers to assist with the presentation of youth and adult conservation programming and staff the education and visitor center year-round.</p> <p>A volunteer development and management plan would be developed.</p>
Environmental Education and Outreach, “Friends Group” and Volunteers—Environmental Consequences		
<p>Depending on volunteers to run visitor services programs, including annual events would provide tremendous opportunities for visitors to interact with these dedicated volunteers. However using mostly volunteer assistance would make programs vulnerable and inconsistent. The loss of Service staff and public interaction would continue.</p>	<p><i>Same as alternative A, plus the following:</i></p> <p>Additional funding and support would be generated for refuge programs.</p> <p>Additional volunteer participation, support, and enthusiasm would be generated</p> <p>The public would have more opportunities to interact with and learn from Service staff.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Additional volunteers would allow the refuge visitor services programs to expand, including year-round opportunities for the public to learn from and interact with knowledgeable refuge volunteers.</p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Environmental Education and Outreach, Staffing—Management Actions		
The current GS-11 park ranger position would be maintained.	<p><i>Same as alternative A, plus the following:</i></p> <p>One GS-9 environmental education specialist would be recruited to assist with education and visitor services programs.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>A GS-9 wildlife biologist with visitor services skills would be recruited to assist with biological, visitor services and other management programs (same position identified in the “Woodland Habitat” alternative).</p>
Environmental Education and Outreach, Staffing—Environmental Consequences		
<p>At current staffing levels, the refuge would not be able to guarantee that current programs would be maintained or expanded, resulting in lost opportunities to educate visitors and students.</p> <p>The loss of Service staff and public interaction would continue.</p>	<p>Recruiting an environmental education specialist would provide the necessary skills and focus needed to help the refuge achieve its vision of expanding visitor services programs and becoming a conservation learning center. This would allow the refuge to develop quality, relevant programs that would be used to educate a larger number of adults and students.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Additional staff would provide the time and resources necessary to expand the refuge’s on-site and off-site visitor and environmental education programs while ensuring visitors are able to interact with refuge staff.</p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Visitor Services and Interpretation Goal		
Provide captivating visitor services facilities and activities for visitors of all abilities, community groups, youth groups, and the members of Spirit Lake Nation which result in a greater understanding and support for the preservation of native habitats and landscapes of North Dakota's Prairie Pothole Region and the mission of the Refuge System.		
Visitor Services and Interpretation, Education and Visitor Center and Outdoor Classroom— Management Actions		
<p>The refuge staff and “friends group” volunteers would continue to be used to operate the education and visitor center May through September (approximately 25 hrs/week), manage the book store, greet visitors, and orient them to the refuge. Hours of operation would be sporadic.</p> <p>The education and visitor center interpretive displays would continue to be completed and regularly updated as resources become available.</p> <p>The birding garden would continue to be maintained.</p> <p>Maintenance of the education and visitor center and outdoor classrooms would occur only as time and staffing allows.</p>	<p><i>Same as alternative A, plus the following:</i></p> <p>Interpretive displays would consist of an interactive habitat diorama demonstrating North Dakota's grasslands, wetlands, agricultural lands and forest.</p> <p>In addition to volunteers, one environmental education specialist would be available for visitor contacts.</p> <p>Electricity and water would be provided to the outdoor classroom.</p> <p>A patio and seating for the outdoor birding garden would be constructed.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Under the direction of additional Service staff, a full cadre of volunteers would be recruited to operate the education and visitor center (48 hrs/week) year-round—weather permitting, manage the bookstore, greet visitors, and orient them to the refuge.</p> <p>In addition to volunteers, refuge staff would be available for visitor contact and education, and visitor center operation.</p> <p>Dedicated audio visual equipment would be available for the education and visitor center and remote classrooms.</p> <p>Student equipment and wall displays for the education and visitor center classroom and remote classroom would be updated.</p> <p>The refuge's cultural resources and history would be interpreted.</p> <p>Through added maintenance staff and funding, facilities would be regularly maintained and upgraded as needed.</p>

Table 2. Summary of alternatives for the comprehensive conservation plan, Sullys Hill National Game Preserve, North Dakota

<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Visitor Services and Interpretation, Education and Visitor Center and Outdoor Classroom— Environmental Consequences		
<p>Visitors would continue to experience limited, inconsistent opportunities to interact with refuge staff and enjoy and learn about the refuge and surrounding resources through interpretive displays at the education and visitor center.</p> <p>Lack of maintenance may cause loss of building integrity.</p>	<p>There would be expanded education and visitor center hours and interpretive displays allowing for more contact with staff and volunteers, while providing additional opportunities for an increased hands-on experience for learning about the refuge, the Refuge System, and the importance of conservation, and how to conserve wetland and grassland habitats.</p> <p>Upgrading visitor services facilities would provide a higher quality experience and improve the visiting public’s impression of the refuge.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>The education and visitor center and facilities would remain open year-round, which would greatly expand opportunities to educate a larger number of adults and children, while providing them a more complete perspective of the conservation role of the Refuge System.</p> <p>Additional educational equipment would enhance student experience and improve learning.</p> <p>Interpreting the refuge’s cultural resources would create a greater understanding and appreciation of the history and culture of the area.</p> <p>Regular maintenance of refuge facilities would ensure there is no loss of structural integrity while ensuring visitors and staff are provided a safe and quality environment in which to learn and work.</p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Visitor Services and Interpretation, Nature Trail—Management Actions		
<p>The refuge and nature trail would continue to be closed between October 1 and May 1.</p> <p>One 1.6-mile nature trail would be minimally maintained, would lack interpretation, and would not be universally accessible.</p> <p>There would be no guided nature trail tours.</p> <p>One overlook would continue to be provided, with only minimal interpretation.</p>	<p>Refuge staff would maintain the winter trail system for cross country skiing and snow shoeing, for the purposes of environmental education and wildlife observation.</p> <p>One 1.6-mile nature trail would be maintained, properly signed, and interpreted. This would include removal of damaged concrete to make the trails accessible and benefit riparian restoration.</p> <p>A “tear sheet” interpretive map for trails would be developed.</p> <p>One overlook would be properly signed and interpreted.</p> <p>For a nominal fee, guided nature trail walks would be provided for groups of 15–25 people.</p> <p>An accessible trail loop and overlook would be constructed from the education and visitor center patio to the amphitheater to provide viewing of Fort Totten Bay and interpretation of refuge resources.</p> <p>A counter would be installed at trail heads for collection of accurate use data.</p>	<p><i>Same as alternative B.</i></p>
Visitor Services and Interpretation, Nature Trail—Environmental Consequences		
<p>Refuge trails would remain inaccessible and there would continue to be a loss of opportunities to educate children and adult utilizing refuge trails.</p>	<p>Accessible and interpreted trails, overlooks, and nature trail programs would greatly expand opportunities for visitors of all abilities to independently learn about and understand the refuge and its resources.</p> <p>There would be minimal loss of habitat through construction or upgrading of refuge nature trails.</p>	<p><i>Same as alternative B.</i></p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Visitor Services and Interpretation, Auto Tour—Management Actions		
<p>One seasonally maintained (May–September) 4.5 mile-long auto tour would continue to be routed through a variety of refuge habitats but would continue to provide only limited, obsolete interpretation.</p> <p>Directional rules and instructional signage would remain adequate.</p> <p>Two newly updated informational kiosks would remain along the route to orient visitors to the refuge and the Refuge System.</p> <p>Daily recreation fees would remain at \$2.00/car, \$10.00 for nonschool group bus, and \$12.00 for an annual pass. Fees would continue to be collected through an honor system.</p> <p>Four overlooks would be provided along the tour route but would continue to provide minimal interpretation.</p>	<p>There would be year-round maintenance of a two-lane segment of the auto tour route (weather permitting). A single-lane segment would be closed during the winter.</p> <p>Interpretation would be enhanced with a self-guided “tear sheet” and improved signage.</p> <p>The daily recreation fee would be increased to \$3.00 (\$20.00 annual pass) and collected through an honor system, except when staff or volunteers were available, particularly during events and high-use periods.</p> <p>Counters would be installed on single- and double-lane portions of the route to provide accurate use data.</p> <p>Four overlooks would be provided along the tour route to provide enhanced interpretation.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>The auto tour route would remain open all winter.</p> <p>An automated recreation fee collection station would be installed to collect fees when staff are not present.</p> <p>A vehicle radio transmitter system would be developed for audio interpretation of the auto tour.</p>
Visitor Services and Interpretation, Auto Tour—Environmental Consequences		
<p>There would be missed opportunities for wildlife viewing and education, particularly during the winter months, and many missed opportunities to provide information about refuge resources and the Refuge System to adults and children.</p> <p>There would continue to be a loss of revenue (estimated at 40%) by continuing to collect recreation fees through the honor system. This fee was set prior to the expansion of visitor services facilities, such as the new education and visitor center.</p>	<p>Additional wildlife viewing, photography, and interpretive opportunities would be created.</p> <p>Increased recreation fees would ensure funding is available for these additional programs and for maintenance.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Keeping the auto tour route open all year would increase opportunities for the public to view and photograph wildlife, and to learn about seasonal changes in refuge resources.</p> <p>Improved fee compliance would allow refuge staff to maintain and improve environmental education facilities.</p> <p>An audio-based interpretive system would increase visitor’s knowledge of refuge habitats and wildlife, while enhancing overall visitor experience.</p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Visitor Services and Interpretation, Amphitheater—Management Actions		
The amphitheater, lost periodically due to flooding, would not be replaced, requiring the refuge to continue renting mobile stages and seating for large group events.	There would be construction of a universally-accessible 250-seat amphitheater with a covered stage, seating, electrical power, and expanded seating capabilities for special events.	<i>Same as alternative B.</i>
Visitor Services and Interpretation, Amphitheater—Environmental Consequences		
There would continue to be a loss of opportunities to provide outdoor interpretive programs due to the added cost and logistics of renting mobile stages and seating for refuge events.	Outdoor programs for visitors of all abilities would be expanded to provide additional quality programs and opportunities for visitors to learn about the refuge and the National Wildlife Refuge System.	<i>Same as alternative B.</i>
Visitor Services and Interpretation, Brochures and Directional Signage—Management Actions		
Updates to the refuge brochure would be completed, printed, and distributed. The directional signage for self-guided trails and auto tour routes would continue to be inadequate.	<i>Same as alternative A, plus the following:</i> The directional signage for trails and auto tour route would be updated and installed.	<i>Same as alternative B.</i>
Visitor Services and Interpretation, Brochures and Directional Signage—Environmental Consequences		
Refuge visitors would not be adequately oriented to the refuge and its visitor facilities.	Updated and expanded directional signage for trails and auto tour route would orient visitors, making them feel welcome. This would encourage visitors to come to the refuge and explore wildlife viewing and interpretation opportunities.	<i>Same as alternative B.</i>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Protection and Maintenance Goal		
Ensure protection and maintenance of refuge facilities, lands, and cultural resources, while providing for the safety of staff, volunteers, and the visiting public.		
Protection and Maintenance, Visitor Safety—Management Actions		
<p>Limited animal warning signage would be available.</p> <p>25% of the park ranger’s (refuge manager’s) time would continue to be used for law enforcement patrols.</p> <p>Regulatory and directional signs would continue to be adequate.</p> <p>Closed areas would not have adequate signage.</p>	<p><i>Same as alternative A, plus the following:</i></p> <p>Additional animal warning and closed-area signage would be developed.</p> <p>With the addition of a full-time law enforcement officer, the GS-11 lead park ranger would no longer be responsible for maintaining law enforcement credentials, and would be able to focus more of his/her efforts on other visitor services programs.</p> <p>Adequate signage would clearly identifying areas closed to visitors.</p> <p>Both random and routine patrols would be conducted, especially during high visitation months and events.</p> <p>A cooperative agreement with local law enforcement agencies would be pursued to expand refuge patrols and ensure visitor safety.</p> <p>Background checks on volunteers would be conducted to ensure safety of students, visitors, and facilities.</p> <p>A visitor safety plan would be developed as part of the overall visitor services plan.</p>	<p><i>Same as alternative B.</i></p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Protection and Maintenance, Visitor Safety—Environmental Consequences		
<p>Unsafe encounters with large bison or elk may occur, harming visitors and wildlife.</p> <p>Without consistent patrols the refuge would continue to serve as a place for unlawful activities, putting wildlife, staff, and visitors at risk.</p> <p>Known occurrences of drug and alcohol use on the refuge are likely to continue.</p>	<p>Visitors would be made aware of closed areas and warnings regarding improper encounters with wildlife. This would increase visitor and wildlife safety.</p> <p>Increased law enforcement presence would encourage refuge visitors to comply with regulations, thus protecting visitors, staff, refuge habitats, facilities, and wildlife.</p> <p>Background checks of volunteers would ensure safety of students, visitors, and facilities.</p> <p>Completing a visitor safety plan would ensure all visitor safety issues are considered and addressed.</p>	<p><i>Same as alternative B.</i></p>
Protection and Maintenance, Recreation Fee Compliance—Management Actions		
<p>The honor system for fee collection would be continued.</p>	<p>A fee collection booth would be constructed and randomly staffed, particularly during high-use periods and events. Routine patrols and fee compliance monitoring would be conducted.</p>	<p>An automated fee collection station with would be installed to collect fees when staff are not present. A camera surveillance system would be installed at the station. (See Visitor Services and Interpretation, Auto Tour.)</p>
Protection and Maintenance, Recreation Fee Compliance—Environmental Consequences		
<p>There would continue to be a significant loss of revenue needed for refuge programs due to an estimated 40% loss of recreation fees.</p>	<p>Additional fees collected when the booth is staffed would help fund refuge programs</p>	<p>Collecting 100% of visitor fees would provide additional funds needed to enhance the refuge recreation program and improve security.</p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Protection and Maintenance, Land and Facilities Protection—Management Actions		
<p>There would be minimal year-round law enforcement presence to protect refuge lands and facilities.</p> <p>No security or fire alarm system would be available at the education and visitor center or shop and there would be no camera surveillance system.</p>	<p>A cooperative agreement with local law enforcement agencies would be pursued to expand land and facility protection.</p> <p>Both random and routine patrols would be conducted, particularly during high visitation months and events.</p> <p>Arson prevention patrols would be conducted during peak fire season.</p> <p>Security and fire alarm systems would be installed.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>A complete camera surveillance system would be installed.</p>
Protection and Maintenance, Land and Facilities Protection—Environmental Consequences		
<p>Refuge facilities and habitat would continue to be negatively impacted by illegal activities such as graffiti, trash dumping, property damage, and arson.</p> <p>Limited security and no fire alarm system would continue to make facilities and lands vulnerable to illegal activities and make apprehension and conviction difficult.</p>	<p>A more consistent law enforcement presence during high visitation peaks would further protect refuge resources and facilities</p> <p>A security system and regular refuge patrols would discourage and remove opportunities to harm refuge lands and facilities.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>A camera surveillance system would discourage illegal activities and allow refuge law enforcement to better apprehend and prosecute offenders.</p>
Protection and Maintenance, Wildlife Safety—Management Actions		
<p>There would continue to be limited routine patrols to monitor wildlife and people interactions.</p> <p>Sporadic fence checks and feral animal control would continue.</p>	<p>A full-time law enforcement officer would be hired and a cooperative agreement with local law enforcement agencies would be pursued to ensure wildlife safety.</p> <p>Routine boundary fence checks would be conducted and feral animal control would continue.</p> <p>There would be routine patrols during low visitation and evening hours.</p> <p>Interpretive programs, materials, and signage would provide information to people on how to view wildlife safely, without causing harm to wildlife or themselves.</p>	<p><i>Same as alternative B.</i></p>

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<i>Alternative A</i> (<i>Current Management</i>)	<i>Alternative B</i>	<i>Alternative C</i> (<i>Proposed Action</i>)
Protection and Maintenance, Wildlife Safety—Environmental Consequences		
<p>There would be no assurance that wildlife would not be harmed by illegal activities such as poaching and harassment.</p>	<p>Additional law enforcement presence would discourage illegal activities that would harm wildlife.</p> <p>Regular boundary fence inspections and repairs would minimize impacts from feral animals that would harm native wildlife.</p> <p>A more consistent law enforcement presence during low visitation periods would further protect wildlife at this most critical time period.</p>	<p><i>Same as alternative B.</i></p>
Protection and Maintenance, Facility Maintenance—Management Actions		
<p>There would continue to be no on-site maintenance staff.</p> <p>Refuge facilities would continue to be maintained on an “as needed” basis as district staff time permits.</p> <p>The Youth Conservation Corps would continue to perform seasonal basic maintenance of facilities and grounds.</p> <p>There would continue to be a limited year-round janitorial contract for the education and visitor center.</p> <p>There would continue to be snow removal only for general refuge operations and special events. During most of the winter season, the refuge would remain closed to visitors.</p>	<p><i>Same as alternative A, plus the following:</i></p> <p>Regular maintenance of facilities and grounds would be conducted during peak visitor times (May–September).</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Regular maintenance of facilities and grounds would be conducted all year.</p> <p>Regular and timely snow removal would be conducted for winter visitor access.</p>
Protection and Maintenance, Facility Maintenance—Environmental Consequences		
<p>Refuge facilities may deteriorate with limited maintenance.</p> <p>Many visitors come to the Devils Lake area to participate in winter sports. There would be loss of opportunity for these visitors to view wildlife and learn about the refuge and its resources.</p>	<p>Refuge facilities would remain safe and continue to function as intended.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>Visitors would be provided year-round opportunities to view wildlife and learn about the refuge.</p>

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<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Protection and Maintenance, Cultural Resources—Management Actions		
Cultural resource evaluations would be done to fulfill compliance with historic preservation laws.	<p><i>Same as alternative A, plus the following:</i></p> <p>Cultural resource surveys would be completed in high probability areas.</p> <p>Historical documents and information would be organized and protected.</p>	<p><i>Same as alternative B, plus the following :</i></p> <p>A comprehensive cultural resource survey of the refuge would be completed in partnership with other agencies and organizations.</p> <p>Monitoring patrols would be conducted to protect inventoried sensitive areas and known sites.</p>
Protection and Maintenance, Cultural Resources—Environmental Consequences		
Cultural resources that would be potentially affected by an undertaking are identified and, if significant, preserved when possible.	<p><i>Same as alternative A, plus the following:</i></p> <p>The addition of a more active survey and identification program would aid in planning and research.</p> <p>A comprehensive inventory would improve protection and planning.</p> <p>Loss and damage of historical documents needed to understand the history of the management of the refuge and document decisions would be prevented.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>The addition of a comprehensive survey and identification program would further aid in planning and research.</p> <p>There would be improved protection of all inventoried sensitive areas and known sites.</p>
Protection and Maintenance, Staff—Management Actions		
No maintenance or full-time law enforcement staff would be assigned to the refuge.	<p>One WG-6 career seasonal maintenance staff person would be recruited to seasonally maintain refuge facilities.</p> <p>One GS-9 park ranger would be recruited to conduct law enforcement. This position would be shared with the Devils Lake WMD Complex.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>One full time WG-6 maintenance worker would be recruited to maintain the real property (valued at \$18 million) and keep roads open year-round.</p>

Table 2. Summary of alternatives for the comprehensive conservation plan, Sullys Hill National Game Preserve, North Dakota

<i>Alternative A (Current Management)</i>	<i>Alternative B</i>	<i>Alternative C (Proposed Action)</i>
Protection and Maintenance, Staff—Environmental Consequences		
<p>The refuge could not ensure adequate maintenance and protection of refuge visitors, volunteers, staff, facilities, lands, and wildlife.</p>	<p>The refuge would be able to seasonally maintain refuge facilities and equipment, particularly during peak visitor-use periods.</p> <p>A full-time law enforcement officer would significantly increase the safety of the refuge and reduce the occurrence of illegal activities.</p>	<p><i>Same as alternative B, plus the following:</i></p> <p>A full time maintenance worker would be able to more effectively maintain refuge facilities and operate refuge equipment year-round.</p> <p>The refuge roads would be maintained year-round, allowing visitors to come to the refuge and view wildlife and learn about seasonal changes.</p>



Grass patch

