For more information on this management plan amendment, please contact the DNR Division of Parks and Trails at (651) 259-5600.
Department of Natural Resources Approval
of Management Plan Amendment for Minneopa State Park

Minnesota Statutes, section 86A.09, subd. 1 requires that a master plan be prepared for units of Minnesota’s outdoor recreation system, including state parks. The Laws of Minnesota for 1995 established Minneopa State Park as part of Minnesota’s Outdoor Recreation System (Minnesota Statutes, section 86.012, subd. 43).

The management plan amendment received input and comment both within the Department of Natural Resources and from the public.

Erika R. Rivers
Erika Rivers, Director
MNDNR Division of Parks and Trails

Date
8/22/14
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Introduction

*Minnesota Statutes*, section 85.011 describes the legislative intent at the foundation of creating state parks, state recreation areas, and state waysides:

> The legislature of this state has provided for the creation and establishment of state parks, designated state recreation areas, and waysides of the purpose of conserving the scenery, natural and historic objects and wildlife and to provide for the enjoyment of the same in a manner that will leave them unimpaired for the enjoyment of future generations.

The Minnesota Department of Natural Resources (DNR) Division of Parks and Trails undertakes many different efforts to meet this statutory obligation to conserve the natural and cultural resources within these units. The types of projects and techniques used vary depending on the type and quality of plant or animal community. Different efforts are needed, for example, to manage largely intact native communities such as remnant prairies or old growth forests than to conduct restorations on properties that have been disturbed by logging, agriculture or other impacts. Different types of communities – prairies, pinelands, savannas, wetlands, hardwood forests – also require different approaches to successfully preserve and perpetuate the plant and animal resources they contain.

Among the responsibilities set out in statute for state parks is not only to manage the natural resources currently found within the unit but to reestablish those resources that are no longer present:

> Management shall seek to maintain a balance among the plant and animal life of the park and to reestablish desired plants and animals that were formerly indigenous to the park area but are now missing. *Minnesota Statutes*, section 86A.0 Subd. 2c.

These reintroduced species can play an important role in the long term health and vitality of the native communities they inhabit.

**Bison in the State Park System**

The DNR Division of Parks and Trails has been managing North American Plains Bison (*Bison bison bison*) since 3 animals from Fort Niobrara National Wildlife Refuge were reintroduced to Blue Mounds State Park in 1961. For the next 30 years, the herd grew and the range within the park was occasionally expanded to accommodate the growing number of bison. By the late 1990’s, new directions for the Blue Mounds State Park herd were established which included providing a realistic view of a historic, natural prairie ecosystem, eliminating
over-grazing and providing a larger herd for visitors to see and learn about through increased interpretive opportunities. This resulted in a doubling of the bison range at the park (to 533 acres) and installation of a bison viewing platform.

Starting in 2008, the division began evaluating its long-term direction for bison management. Coming out of that evaluation is the direction that the division will manage bison as a natural resource, as part of the prairie ecosystem. Further that the division will contribute to the overall conservation of plains bison genetics and population, in cooperation with U.S. Department of Interior and other entities. The division developed five goals for bison management:

1. Play a role in the conservation of North American plains bison genetics and population.
2. Manage bison to insure long-term sustainability of the bison population and the quality of the prairie community within the bison range.
3. Provide opportunities for interpretation and observation of bison and the prairie community by visitors.
4. Explore cultural resource management opportunities.
5. Develop an operational handbook for managing bison in a state park setting.

The division has established a formal interagency agreement with the Minnesota Zoological Gardens in 2012 to work cooperatively to “preserve the genome of the North American Plains Bison and conserve other prairie wildlife species native to Minnesota.”

Genetic testing of the bison herd at Blue Mounds State Park in 2011-13 found very little introgression of cattle genes in the herd, meaning the animals are largely free of any genetic material that would have come from cross-breeding with cattle. The results are similar to those of herds managed by the Department of Interior and means animals at Blue Mounds can be exchanged with other conservation herds to further maintain genetic diversity.

In order to play a role in the conservation of bison genetics and population, the division will need to expand the number of bison in its herd to maintain genetic variation and protect against inbreeding. A target of 500 animals is recommended to maintain the long-term genetic health of the herd. No one state park has enough acreage of quality prairie to sustain an entire 500 animal herd. In order to reach that number, the division will manage smaller groups at several locations that are managed as one herd for genetic purposes. Several smaller locations will require less acreage at any site, while animals can be exchanged between locations to maintain genetic connections and diversity.
Selecting Bison Reintroduction Sites

In order to make significant progress toward Goals 1 and 3, the division set a target of reintroducing bison to a second state park location. The division established a strategic planning group to develop an overall strategic plan for bison management and to recommend a state park as the second reintroduction site (Blue Mounds State Park being considered as the first reintroduction). The workgroup developed a set of ecological, operational, interpretive, and visitor experience criteria used to evaluate state parks within the bison historic range as candidates for bison reintroduction. The criteria were used to evaluate candidate parks as the second reintroduction site and will be utilized for selecting sites for future reintroductions.

Minneopa State Park was selected as the second reintroduction site from a list of candidate parks. Among the reasons Minneopa State Park was chosen were:

- The park has a large potential audience - over 200,000 people live within 50 miles of the park and another 3 million in the Minneapolis-St. Paul metropolitan area less than two hours away.
- Nearby academic institutions such as MSU-Mankato and Gustavus Adolphus College are potential research partners and host complementary academic programs in biology, American Indian studies and natural resource management.
- Landscape features and existing infrastructure in the park such as the Seppmann Mill overlook and park road provide bison viewing and interpretive opportunities for visitors.
- The park contains sufficient existing remnant and reconstructed prairie within the proposed bison range so that prairie restoration will not be required prior to bison reintroduction.
- The reintroduction of bison will aid prairie management by potentially retarding encroachment of woody species more at Minneopa State Park than other candidate parks.

With the selection of the second reintroduction site, the DNR Division of Parks and Trails will move forward with preparing the site with the intent to have bison at the park in 2015.
Purpose

The purpose of this plan amendment is to amend the *Minneopa State Park Management Plan* (July 1998) to describe the reintroduction of bison and address impacts on resource management, interpretive services, and recreational use and visitor services at the state park.

Master plans (management plans) are required for units of Minnesota's outdoor recreation system, including state parks and state recreation areas, under Minnesota Statutes 86A.09, Subdivision 1. The amendment will bring the management plan into concordance with the DNR Division of Parks and Trails proposal for reintroducing bison to the state park and the related development and management actions.
Description

Minneopa State Park is located 5 miles west of Mankato, in Blue Earth County. Established in 1905, Minneopa State Park contains southern Minnesota’s largest waterfall and the remains of the historic Seppmann windmill. The park encompasses 2,691 acres, of which approximately 1,653 acres are owned and managed by the Division of Parks and Trails. The park’s most popular attraction is Minneopa Falls, a double waterfall on Minneopa Creek. Park facilities include a campground, group camps, picnic areas, a visitor center, and trails for hiking and cross-country skiing.

Minneopa State Park attracts a significant number of visitors – 146,236 day visitors were recorded at the park in 2013. The park campground and group camps hosted 8,871 overnight visitors in 2013.

Reintroducing bison to Minneopa State Park will restore a missing piece of the state park’s native plant and animal communities and create a significant new attraction for park visitors. The division anticipates the herd size will be managed at approximately 40 animals, based on the acreage of the bison range and quality of the vegetation for grazing. Following the reintroduction of the initial animals, the herd size will grow to capacity through natural reproduction, as well as the introduction of additional animals born at the Minnesota Zoological Gardens or transfers from Blue Mounds State Park. Once the target herd size is reached, the population will be managed similarly to the herd at Blue Mounds State Park. Excess animals will be removed from the herd to maintain herd health by staying within the range’s natural carrying capacity. The animals removed from the herd will be placed for auction or possibly transferred to another conservation-managed herd.

A successful reintroduction will require the development of facilities to support bison management activities, as well as improvements for interpretation and public viewing of the animals and prairie landscape:

- **Construct a fence to create the bison range.** The approximately 350 acre fenced-in range will include a section of the park road leading to Seppmann Mill, with gates and cattle guards to allow continued use of the road. (see Figure 1: Bison Range Improvements). The area within the fence will not be accessible by the public, except in vehicles driving on the park road. Access by vehicles through the bison range and to the Seppmann Mill will generally be possible during regular park hours.

- **Create a year-round water source for bison with the bison range.** The division will drill a well and construct a naturally appearing “prairie pothole” to provide water for the herd. Likely several other stock tank-style water stations will also be built to provide alternative water sources.
Construct a handling facility (including a corral and storage building) for herd management needs. The handling facility will be necessary to aid with herd management activities such as genetic testing, branding, and animal introduction or removal from the herd, etc.

Improve the park road to provide better driving conditions for management use and park visitors. The roadbed will be raised with the addition of gravel to improve the year-round use of the road. A turn-around at the base of the hill and one or more pullouts for bison viewing may be created.

Reroute and extend hiking and skiing trails around the bison range. Existing trails will be relocated and new trail constructed to offer additional trail opportunities for park visitors. The division will also consider the development of additional shorter hiking trail opportunities near the bison range and elsewhere in the state park.

Develop improvements at the eastern end of the bison range to help orient visitors to the bison range and other nearby park facilities. Improvements may include orientation and interpretive signage, self-registration and permit sales, parking, and sanitation.

Develop interpretive signage and other on-site and off-site materials about bison in general, and the division’s role in bison conservation and prairie ecosystem management. Material may also highlight the division’s partnership with the Minnesota Zoological Gardens, and other partners.

The location of the bison range will provide multiple opportunities for visitors to view the bison herd. Park visitors will be able to drive through the range on the park road. A hiking trail will follow the perimeter of the bison range fence. The overlook at Seppmann Mill will provide visitors a sweeping view of nearly the entire bison range and the Minnesota River valley. The handling facility and water source(s) will be located at the western end of the range and will be screened from view of the overlook.

The reintroduction of bison is anticipated to increase visitation to Minneopa State Park. Visitors coming to view bison will also likely utilize other park facilities including the Minneopa Falls area, the park campground, and group camps.

Natural and Cultural Resources Impact

About three-quarters of the 350-acre proposed bison range is classified by MN Biological Survey (MBS) as Southern Dry Sand/Gravel Prairie (UPs13b). The remainder of the range area consists of old field, prairie reconstruction and unclassified land (see Figure 2: Land Cover – System Level Classifications). Portions of the range have been invaded by woody plants, such as buckthorn, sumac and box elder. Woody plant removal projects have been conducted for
the past several years to help restore and maintain the prairie/savanna community, and will continue in the future. Construction of the park road turnaround and pull-outs and the facilities in the welcome/orientation area may result in the loss of some prairie.

No species of rare plants are known to occur within the proposed range; however, there are three species of vertebrates documented within the range. They are the: MN Special Concern western harvest mouse (*Reithrodontomys megalotis*), and the MN Endangered loggerhead shrike (*Lanius ludovicianus*) and Henslow’s sparrow (*Ammodramus henslowii*).

Increased efforts to restore and maintain prairie within the bison range, combined with the actions of the bison themselves will likely increase the amount of habitat suitable for western harvest mice. The division will provide for refugia when using prescribed fires within the range in order to provide habitat for this species. Loggerhead shrikes have not been observed for decades at the park as the population of loggerheads has declined across the country. Similar to the western harvest mouse, loggerhead shrikes would likely benefit from the increased efforts to restore and maintain prairie even though that would result in fewer trees that could be utilized as perches. Henslow’s sparrows currently utilize the range, their presence noted in observations from 2011-2013. Henslow’s sparrows will also benefit from the increased efforts to restore and maintain prairie. However, there may also be some negative effects from greater management because Henslow’s are ground nesters and require deep litter which is reduced with frequent fire. As with the western harvest mice, it will be important to provide for refugia and time prescribed fires outside of the nesting season.

Prior to the bison reintroduction proposal, there were no known cultural resources within the area of the proposed bison range. Site investigations conducted for the proposal found evidence of Native American habitation of the area - numerous artifacts were located on the surface and shovel tests identified archaeological sites within the proposed bison range. Most of the archaeological sites are believed to be Middle and Late Archaic (3,000 to 7,000 years old). The sites appear to be stone toolmaking sites or habitation sites. One area also contained Middle Woodland ceramics. Surface artifacts were collected and the archaeological site locations recorded for further study. The fence and other facilities will be placed to minimize disturbance of the archaeological sites. The division will monitor the impact of the bison to the ground surface and possible impacts to the subsurface archaeological resources.

There are several other cultural resource elements within the park near the bison range. A burial mound group known as the Hanel Mound Group (21BE1) is located outside the northwest edge of the proposed range fence line near the handling facility location and will not be affected by the project. Seppmann Mill is located on the ridge overlooking the bison range (see Figure 3: Cultural Features). The wind-powered grist mill, constructed between 1862 and 1864, is on the National Register of Historic Places. The mill overlook area will be a
significant interpretive location and a popular vantage point for park visitors to view bison. The division will investigate the need for improvements to the overlook area to protect the mill from any damage associated with the anticipated increased use of the area, and will monitor the site for visitor-caused impacts.

Other known cultural and historic resources in the park include the Minneopa State Park WPA/Rustic Style Historic District (listed on the National Register of Historic Places), the proposed Original Minneopa State Park Historic District (a proposed historic district that has been determined eligible for the National Register), and multiple Native American-related archaeological sites. Reintroduction of bison and the associated increase in visitation to the park are not anticipated to impact these resources.

Addition natural and cultural resource assessments will be conducted as part of construction activities, including fence post installation, trail construction, well drilling, construction/installation of the water source(s) and construction of the handling facility.

**Interpretive Services Impact**

Reintroducing bison represents a new interpretive theme at Minneopa State Park. The division will develop bison-related interpretive programs and experiences that complement, not duplicate, those offered at Blue Mounds State Park and the Minnesota Zoological Gardens. Interpretive opportunities at each site will inform visitors and encourage them to seek out the experiences offered at the other locations.

- **Minnesota Zoological Gardens** – “bison and science” – opportunities to learn about the genetics and breeding science involved in the Zoo’s work on bison conservation.
- **Blue Mounds State Park** – “bison and the landscape” – opportunities to learn about bison and its place in the natural landscape, its role in prairie ecosystems.
- **Minneopa State Park** – “bison and people” – opportunities to learn about the relationship between bison and people, from Native Americans through Euro-American settlement and today.

The division will create multiple self-guided interpretive opportunities related to the bison-reintroduction at the state park (see Figure 4: Interpretive Opportunities).

- **“Bison drive” experience** - The current park road leading from the campground to the Seppmann Mill will bisect the bison range. During park hours, the gates along the road will remain open, with cattle guards...
preventing the bison from leaving the enclosure. Park visitors will be able to drive their vehicles on the road through the bison range up to the mill overlook. Visitors will be directed to remain in their vehicles. The division will develop interpretive materials for the bison drive – possibilities include interpretive trail-type brochures and cellphone-based tours. Interpretive signage along the road will be limited to minimize visual impacts to the prairie landscape and to discourage visitors from exiting their vehicles to read signs. The bison drive will be a three season experience – the division does not anticipate maintaining the road for public use in the winter.

Seppmann Mill overlook – The overlook provides views across nearly the entire bison range within the state park. Interpretive signage will provide self-guided opportunities at this location. Bison-focused interpretive information will be integrated with the other interpretive themes at the site, including the Seppmann Mill. The overlook will also provide a location for staff-led interpretive programming.

Hiking trails around the bison range – Construction of the bison range will result in the relocation of a hiking trail and the Hiking Club-designated trail. The relocated trail will circle the bison range on the outside of the fence. Hikers will be able to see the bison herd as they hike along the trail. Interpretive signs will be developed and placed where visitors can be expected to see bison.

Brochures, virtual tours and other opportunities – the Division will develop interpretive materials about bison at Minneopa State Park, as well as revise existing materials such as the state park map, state park web pages, and other items to provide additional opportunities for people to learn about bison either while visiting the state park or off-site.

The division will also create staff-led interpretive programs and events related to bison. Programs and events will be held at the state park to educate visitors around themes such as of “bison and people” and prairie ecosystems. Programs may also be developed that can be shared with groups offsite, such as school groups, community groups, etc. The scheduling and frequency of staff-led events may vary seasonally and over time - depending on park visitation, group requests, and staff and program funding.

Recreational Use and Visitor Services Impact

The reintroduction of bison will result in several specific facility-related changes within the state park, and more broadly is anticipated to affect park visitation and some visitor experiences (see Figure 5: Recreational Facility Changes). Specific facility changes include:

Trail network changes – Construction of the bison range enclosure will necessitate the relocation of several sections of hiking trail, including the
designated Hiking Club trail. The trails will be relocated to circle the outside of the bison range. The result will be a net increase in the overall hiking trail mileage in the park. A new Hiking Club trail route will be determined with the trail relocations. The division will also consider developing additional shorter trail loops near the bison range and in prairie areas elsewhere within the park to mitigate the trail experiences impacted by creating the bison range. The proposed route for the future Minnesota River State Trail will not be affected – the trail is proposed to run along the bison range fence and State Highway 68, with a connection to the Seppmann Mill overlook.

Road improvements – The road through the bison range will be improved by adding gravel to the road surface. A turn-around will be constructed at the base of the hill below the overlook to allow visitors to return to the bison range entrance without going up to the overlook. One or more pullouts may be constructed for bison viewing along the road in the future if visitor use warrants it. Any work along the road corridor, such as the possible pullouts, will need to take into account impacts to native prairie along the road. Walking along the road, currently an activity sought by some park users, will no longer be possible after the construction of the bison range and reintroduction of bison.

Seppmann Mill overlook improvements – Increased visitation and use of the overlook may warrant additional signage, formalization of parking stalls or lanes, and protective measures near the historic mill (signage, fencing) to protect resources and minimize visitor conflicts.

Welcome/orientation improvements – the division will make improvements at the eastern end of the bison range to help orient visitors to the bison range and other nearby park facilities. Improvements may include orientation and interpretive signage, self-registration and permit sales, parking, and sanitation. The picnic area, campground and bison drive road intersections may be realigned to help direct traffic and improve visitor experience.

Beyond changes to specific facilities, the reintroduction of bison to the state park will impact recreational experiences and visitor use. With the addition of bison as another park attraction, park use is expected to increase not just in the area associated with the bison but throughout the state park. Visitation and public use of other park facilities such as the campgrounds and group camps, picnic areas, and the Minneopa Falls area are expected to increase.

Existing facilities in the park are anticipated to have capacity to support additional visitor use. The Minneopa Falls area drives much of the current visitation to the park and will likely continue, with the bison range area creating a second primary attraction. Campground use is expected to increase as park visitation increases with the addition of bison to the park. However, overnight use has been limited because of the low number of electric sites in the
campground and lack of a swimming area in the park.

Increased visitation to the park may have negative impacts to some park users. As visitation increases, park visitors will likely find fewer areas or occasions for quiet, solitary experiences at the park.

**Management Plan Text Revisions**

The plan amendment text supplements portions of the *V. Ecosystem Based Management, and Natural and Cultural Resources Management, VI. Recreation Resources Management, and VII. Interpretive Services* sections of the current management plan. Locations of existing and proposed trails in the area of the bison range as shown in this amendment supersede those shown in the management plan.

**Public Review**

In accordance with Minnesota Statutes 86A.09 Subd. 3., the plan amendment was released for a 30 day public review period beginning on April 1, 2014 with an open house held at the Blue Earth County Library in Mankato on April 22, 2014.

The majority of comments received during the public review supported the bison reintroduction proposal. Just under 100 comments were received via email and telephone, or as comment cards submitted at the open house. Nearly 70% of the comments were supportive of the proposal.

About 14% of comments opposed the reintroduction proposal because of impacts to other park use. Some of the issues raised in these comments were:

- Loss of existing hiking trails – primarily shorter hiking loops
- Loss of access to prairie – not being able to walk in the prairie that would be within the bison range.

The remaining 16% of comments were neutral – either requesting information or a comment unrelated to the bison proposal. Many of these unrelated comments were requests to add other recreational activities to the park, primarily horseback riding.

In response to the public comments, the division revised the proposal to include developing additional hiking opportunities, including a shorter loop near the bison range, as well as to consider additional hiking trails that would give visitors access to other prairie areas within the park.

The division does not support adding horseback riding opportunities at the park.
at this time. Typically, the division looks to provide horseback riding at units with enough space and trail mileage for a half days’ worth of riding (or connections to significant riding opportunities outside the park) to create a quality experience for visitors and worth the investment of development and maintenance costs.
Bibliography

Minnesota Department of Natural Resources (1998). *Minneopa State Park Management Plan*. Division of Parks and Recreation, Minnesota Department of Natural Resources, St. Paul, MN.


Minneopa State Park

Figure 1: Bison Range Improvements

Legend
- Bison range fenced extent
- Bison drive road improvements
- Road gate/cattle guard
- Bison handling facility
- Prairie pothole potential locations
- Welcome/orientation improvements
- State Park statutory boundary
- Private land within park boundary
Minneopa State Park

Figure 2: Land Cover - System Level Classifications

Legend

- Facilities System - Developed & Use Areas
- Non-Natural System - Young Forest, Old Fields
- Other Natural System - Open Water
- Floodplain Forest System
- Fire-Dependent Forest/Woodland System
- Upland Prairie System
- Mesic Hardwood Forest System
- Wet Meadow/Carr System
- Unclassified
- State Park statutory boundary
- Private land within park boundary

Extent Shown

Minneopa State Park

Minnesota Department of Natural Resources
Division of Parks and Trails
August 2014
Figure 3: Cultural Features

Legend

- Seppmann Mill
- WPA/Rustic Style Historic District
- Original Minneopa State Park Proposed Historic District
- State Park statutory boundary
- Private land within park boundary

Minneopa State Park

Minnesota Department of Natural Resources
Division of Parks and Trails

August 2014
Minneopa State Park

Figure 4: Interpretive Opportunities

Legend

- Seppmann Mill overlook
- Bison drive route
- Hiking trail with interpretive opportunities
- Welcome/orientation improvements
- Bison range fenced extent
- State Park statutory boundary
- Private land within park boundary

Minneopa State Park

Minneopa Falls Area

Picnic Area

Seppmann Mill overlook

Bison drive route

Hiking trail with interpretive opportunities

State Park statutory boundary

Private land within park boundary

Extent Shown

Minnesota Department of Natural Resources
Division of Parks and Trails

August 2014
Figure 5: Recreational Facility Changes

Legend
- Seppmann Mill overlook
- Bison drive route
- Bison drive section closed to pedestrians
- New trail to be developed
- Existing trail to be closed
- Existing Trails
- Welcome/orientation improvements
- Bison range fenced extent
- State Park statutory boundary
- Private land within park boundary

Minneopa State Park

0 500 1,000 2,000 3,000 Feet

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