

**Environment and Natural Resources Trust Fund  
2015 Request for Proposals (RFP)**

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**Project Title:**

**ENRTF ID: 008-A**

Reintroduction/Interpretation of Bison in Minnesota State Parks

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**Category:** A. Foundational Natural Resource Data and Information

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**Total Project Budget:** \$ 797,718

**Proposed Project Time Period for the Funding Requested:** 3 years, July 2015 - June 2018

**Summary:**

Preserve American bison by reintroducing to Minneopa state park, provide more/better interpretive opportunities to learn about bison and prairie ecosystems at Blue Mounds and Minneopa and improve prairie quality.

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**Sponsoring Organization:** MN DNR

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**Location**

**Region:** Metro, SW, SE

**County Name:** Blue Earth, Rock

**City / Township:** Luverne and Mankato

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**Alternate Text for Visual:**

The visual includes 3 images. First is a map showing the historic range of bison in MN (all except NE MN) and the locations of Blue Mounds and Minneopa State Parks. The second is a picture and overhead drawing of a humane handling facility and the third is a picture of an example off-road safari type vehicle surrounded by bison.

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ TOTAL	



**PROJECT TITLE:**

Reintroduction and Interpretation of Bison in Minnesota State Parks

**I. PROJECT STATEMENT**

This project will help preserve American bison (*Bison bison*), provide more and better interpretive opportunities to learn about bison and prairie ecosystems, and improve prairie quality.

- The International Union for the Conservation of Nature classifies bison as Near-Threatened due to the small number (< 32,000 in N. America) managed to preserve the species in the public interest. Existing threats include genetic manipulation of commercial herds for marketable traits, habitat loss, cattle gene introgression & small population effects. Genetic testing of most of the approx. 100 bison at Blue Mounds State Park has shown the herd to be free of cattle mitochondrial DNA and containing 99.8% bison nuclear DNA. This genetic composition and diversity is on par with several Dept. of Interior/National Park herds and makes the Blue Mounds herd an excellent candidate to contribute to the conservation of the genome and population of wild bison. In order to sustain the genetic viability of the MN population and play a role in national conservation efforts requires increasing the MN population to 400-500 animals utilizing several DNR sites and the MN Zoo. This project will aid in the reintroduction of bison to a second location, Minneopa State Park, in order to begin growing DNR’s bison population.
- This project will also provide the means to create excellent opportunities to view bison up close via personal vehicle or public tours and learn about the history and importance of bison and prairie ecosystems. It is anticipated that these new opportunities will increase visitation at Minneopa State Park by > 32,000 and at Blue Mounds by > 1,000 visitors. Others will be able to view the Blue Mounds bison via streaming video.
- Additionally, reintroduction of bison to Minneopa will aid in the restoration/maintenance of remnant prairie in the park. Bison feed primarily on grasses and use their horns to create wallows (shallow depressions). These activities provide variation in vegetative species/structure which improves wildlife diversity on-site.
- The project will provide the infrastructure needed for reintroduction of bison at Minneopa and the equipment/supplies and initial staffing to create new interpretive opportunities (personal/non-personal) at Minneopa and Blue Mounds.

**II. PROJECT ACTIVITIES AND OUTCOMES**

**Activity 1:** Design and Construct a Humane Bison Handling Facility (Minneopa)

**Budget: \$360,000**

This facility is for annual roundup of animals for genetic testing, animal transfers to manage genetic diversity and carrying capacity, micro-chip placement for animal ID and disease prevention/management. It will be designed using Grandin humane livestock handling principles. It will include gathering/holding pens, a curved passageway & squeeze chute (see pictures on illus. page), and a 1,200 ft<sup>2</sup> pole building for equipment/supplies.

Outcome	Completion Date
1. Design the handling facility to complement the site identified in 2014.	12/31/15
2. Prepare bid specifications, review proposals, select contractor.	4/1/16
3. Complete installation/construction of handling facility components.	7/1/16

**Activity 2:** Design & Construction of a Watering Pond (Minneopa)

**Budget: \$100,000**

Design/construction of a watering pond approx. ¼ acre in size at Minneopa to provide a permanent, no maintenance water source to complement livestock waterers installed in 2014. An isolated water source is necessary to minimize the risk of disease introduction so the source will be a well or spring.

Outcome	Completion Date
1. Select pond location and design	12/31/15
2. Construct the pond	10/31/16



**Environment and Natural Resources Trust Fund (ENRTF)**

**2015 Main Proposal**

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**Activity 3: Minneopa - Upgrading of approx. 2.8 miles of Wildlife Viewing Drive.**

**Budget: \$50,000**

A lift of 3"-4" of gravel will be placed on the wildlife viewing drive through the bison range to provide for three season+ observation of bison by visitors similar to the experience at Custer State Park in South Dakota.

Outcome	Completion Date
1. Prepare bid specifications, review RFP's, select contractor	09/30/15
2. Oversee contractor/project implementation	11/30/15

**Activity 4: Connecting Minneopa visitors with bison and prairie ecosystems through personal and non-personal interpretation.**

**Budget: \$70,000**

Park visitors will benefit from signage and exhibits along the viewing drive, a self-guided trail, development of a video, a cell phone driving tour and initial costs for additional interpretive staffing (Naturalist Corps) by connecting with the natural/cultural resources at hand.

Outcome	Completion Date
1. Design of signage along viewing drive and self-guided trail	10/31/2015
2. Naturalist Corp staffing (3 seasons)	6/30/2018
3. Cell phone tour contracted with OnCell Inc. for 3 years of phone accessible interpretation	8/1/15--6/30/18
4. Development of video focusing on bison/prairies	6/30/18

**Activity 5: Connecting Blue Mounds visitors with bison and prairie ecosystems via a web cam and safari vehicle.**

**Budget: \$200,000**

Park visitors will benefit from the design/acquisition of an off-highway tour vehicle for 12 passengers, ADA accessible and designed to minimally impact the prairie. It will be used to provide visitor field experiences within 533 acres of bison range. This activity includes initial staffing to conduct tours, new interpretive signage and set-up of a web cam that will track the herd and provide viewing opportunities onsite and via the internet.

Outcome	Completion Date
1. Design/acquisition of multi-passenger OHV for bison range tours	6/30/2016
2. Selection/installation of streaming WebCam.	6/30/2016
3. Development of new signage & safari tour start-up costs	6/30/2018
4. ½ year Interpretive naturalist 2 to coordinate/conduct safari tours as well as other tasks.	4/16–10/16

**III. PROJECT STRATEGY**

**A. Project Team/Partners**

The project team includes staff from DNR and the MN Zoo. DNR and MN Zoo have an interagency agreement for cooperative management of bison and prairie wildlife native to Minnesota. Project Partners Receiving Funds – MN DNR. Project Partners Not Receiving Funds - MN Zoological Gardens.

**B. Project Impact and Long-Term Strategy**

Three-four more reintroduction sites will eventually be needed to reach the 400-500 animals required. DNR has suitable state parks, but is open to partnering with other organizations. In-kind contributions have been made by DNR and MN Zoo staff in managing the existing population and planning for the Minneopa reintroduction. DNR and MN Zoo will provide partial funding via project dollars and in-kind services toward future reintroduction efforts and may also submit a future request to assist with additional reintroduction sites.

**C. Timeline Requirements**

It is fully anticipated that all aspects of the proposed project will be completed within a 36 month period of receiving funding. It is expected that the bulk of the infrastructure work will take place in 2016 and beyond because of the need for specific site planning, contract preparation, etc. prior to implementation.

## 2015 Detailed Project Budget

**Project Title: *Reintroduction and Interpretation of Bison in Minnesota State Parks***

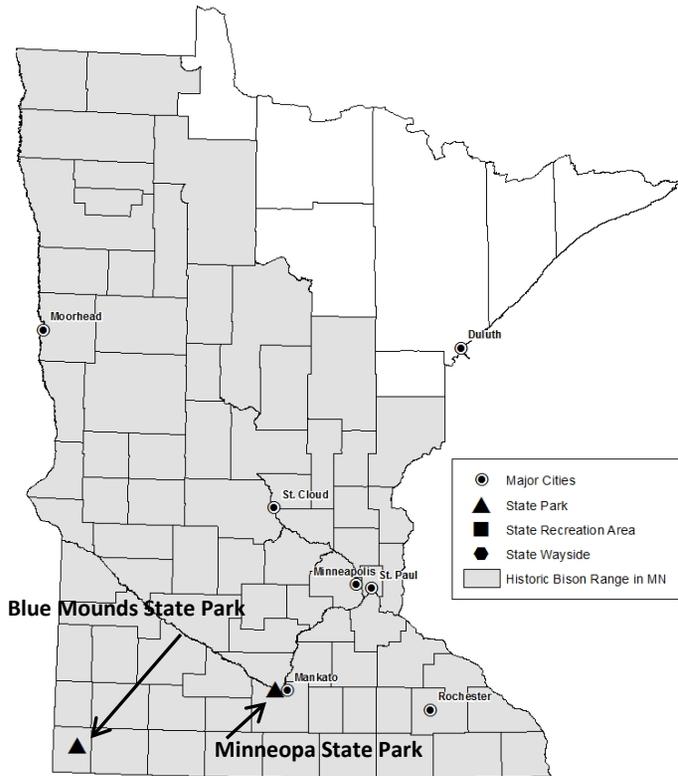
### IV. TOTAL ENRTF REQUEST BUDGET: 3 years

<u>BUDGET ITEM</u>	<u>AMOUNT</u>
<b>Personnel:</b>	\$ -
Interpretive Naturalist 2 (70% salary, 30% benefits). 50% FTE for 1 year	\$ 45,000
1 Naturalist Corps (680 hrs/year for 3 years). 30% FTE for 3 years.	\$ 30,000
<b>Contracts:</b>	\$ -
Upgrading of approx. 2.8 miles of wildlife drive to provide for three season+ observation. The upgrade consists of a 3"-4" lift of gravel to be placed on the road. Will contract with sand/gravel operation, driveway installer type company for this work.	\$ 50,000
Design & installation of bison handling facility (gathering pen, holding pens, squeeze chute, etc). For similar work at Blue Mounds we have used Grandin Livestock Handling Systems for design and Hi-Hog Farm & Ranch Equipment for materials/installation.	\$ 310,000
Construction of a small pole building associated with handling facility. Will utilize one of several companies in the area that construct these types of buildings.	\$ 50,000
Design & construction of a watering pond at Minneopa to provide a permanent, no maintenance water source for bison in addition to the livestock waterers. Will potentially utilize an exterior exhibit company for the design and then work with local excavators/pond builders for construction.	\$ 100,000
<b>Equipment/Tools/Supplies:</b>	\$ -
Off-highway safari vehicle for 12 passengers, ADA-accessible, designed to minimally impact prairie - to provide visitor field experiences to view bison and prairie at Blue Mounds SP.	\$ 100,000
Tracking Webcam	\$ 11,000
Supplies for interpretive programming at Minneopa & Blue Mounds	\$ 10,000
Signage: interpretive, directional & safety at Minneopa & Blue Mounds	\$ 65,000
OnCell audio tours \$3,000/yr. Three years.	\$ 9,000
	\$ -
	\$ -
<b>Additional Budget Items:</b>	\$ -
<b>Direct support services.</b> DNR's direct and necessary costs pay for activities that are directly related to and necessary for accomplishing appropriated programs/projects. In addition to itemized costs captured in our proposal budget, direct and necessary costs cover HR Support (~\$1,856), Safety Support (~\$459), Financial Support (~\$10,140), Communication Support (~\$1,141), IT Support (~\$3,182), Planning Support (~\$704), Procurement Support (~\$235), and division and regional program management (~\$0) that are necessary to accomplishing funded programs/projects.	\$ 17,718
<b>TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =</b>	<b>\$ 797,718</b>

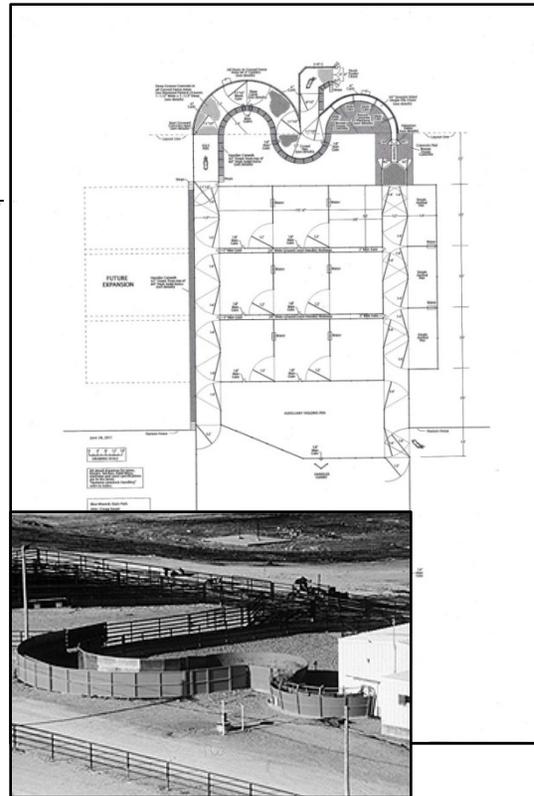
### V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
<b>Other Non-State \$ To Be Applied To Project During Project Period:</b>	N/A	
<b>Other State \$ To Be Applied To Project During Project Period:</b>	N/A	
<b>In-kind Services To Be Applied To Project During Project Period:</b>		
PAT division has identified approx. \$60,000 needed annually for park operations, resource management and interpretation related to bison management at Minneopa. Amt. is for 3 yrs.	\$ 180,000	Pending
MN Zoo has identified approx. \$50,000 in in-kind services that will be utilized during the time period of the project. This would include activities such as: assisting with DNA sampling, compiling & analyzing studbook data, consultation on design of handling facility and pond installation, transport/quarantine of bison selected for introduction to the MN pop., interagency meeting coordination	\$ 50,000	Pending
<b>Funding History:</b>		
Preparation of Minneopa bison range - baseline prairie assessment, brush removal, fence installation, well/waterers, supplemental feed, initial interpretive materials - Parks and Trails Legacy funding.	\$ 270,488	Secured
<b>Remaining \$ From Current ENRTF Appropriation:</b>	N/A	
	<b>\$ 500,488</b>	

**Project Title: Reintroduction and Interpretation of Bison in Minnesota State Parks**



**Historic Range of Bison in MN and Locations of Blue Mounds and Minneopa State Parks**



**Example of Humane Bison Handling Facility to Manage Bison Population and Genetics**  
Serpentine passage is custom-built on-site. (Photo - <http://www.grandin.com>)



**Example of Off-Road Safari Vehicle to Provide Close-up Observation of Bison and Prairie Ecosystems**  
ADA accessible, 12 passenger, minimal impact to prairie  
(Photo – Cook Bison Ranch)

## **Environment Trust Fund 2015 Project Proposal**

### **Project Title: Reintroduction and Interpretation of Bison in Minnesota State Parks**

#### **Project Manager Qualifications**

Ed Quinn oversees the natural/cultural resource management program for the Division of Parks & Trails. He provides direction for and coordination of 16 Parks & Trails resource management specialists and technicians. The program is responsible for protecting, managing and restoring natural/cultural resources on division-administered lands. Annually the division restores approximately 890 acres of prairie, forest & wetlands, conducts prescribed burns on about 5,600 acres and manages invasive species on approximately 8,700 acres.

Ed has worked in the natural resource field for over 20 years. He has been employed as a naturalist, wildlife biologist and natural areas manager. He has overseen the MNDNR Parks & Trails resource program since 1998. He holds a bachelor's degree in Fish & Wildlife from Michigan State University and a master's degree from the University of Minnesota. He has been a certified wildlife biologist since 1994.

#### **Organization Description**

The Department of Natural Resources-Division of Parks and Trails operates 67 state parks, 9 state recreation areas, 25 state trail segments, 1,496 water access sites, 33 water trails and 8 state waysides throughout Minnesota. The Division is responsible for protecting, managing & restoring natural and cultural resources and providing outstanding park, trail and water recreation experiences for visitors.