

**Environment and Natural Resources Trust Fund
2014 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 165-F

Minnesota Zoo Site Restoration and Native Wildlife Study

Category: F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat

Total Project Budget: \$ 477,200

Proposed Project Time Period for the Funding Requested: 3 Years, July 2014 - June 2017

Summary:

The Zoo will integrate habitat conservation, environmental education and recreation by restoring and studying 40 acres of land, creating educational opportunities for those exploring the site along a public trail.

Name: Ken Kornack

Sponsoring Organization: Minnesota Zoological Garden

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Location

Region: Metro

County Name: Dakota

City / Township: Apple Valley

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



PROJECT TITLE: Minnesota Zoo Site Restoration and Native Wildlife Study

I. PROJECT STATEMENT

The Minnesota Zoo’s mission is to connect people, animals and the natural world. Located on 485 acres of land in Dakota County, the Zoo is largely known for its exotic animal collection visited by more than 1.3 million people a year. However, in addition to the recreational components of its mission, the Zoo also has a longstanding commitment to conservation and environmental education. In partnership with the School of Environmental Studies (located on the Zoo’s site) and Dakota County, the Zoo proposes to *integrate habitat conservation, environmental education and recreation* by restoring and studying a 40-acre portion of its ecologically significant 282 acres of undeveloped land, and creating educational opportunities for those exploring the site once Dakota County’s regional North Creek Greenway trail is completed—connecting this area of the Zoo (which will be open to the public without charges otherwise associated with visiting Zoo exhibits) to an extensive system of trails and recreation destinations throughout Dakota County.

In conjunction with Applied Ecological Services, the Minnesota Zoo recently completed an ecological inventory of its undeveloped property with related restoration and long-term management plans. As noted in the inventory, the Zoo is located in a MDNR designated regionally significant metropolitan conservation corridor and is part of a regional ecological corridor under the Minnesota Land Cover Classification System (MLCCS). Its undeveloped land has great biological importance in the southeast region of the metropolitan area, with 16 different land cover types ranging from relatively common natural communities such as oak forest and aspen woodland to rare wetland habitats such as vernal pools, sedge meadows, and northern rich fens. Remnants of native prairie can also be found.

The Zoo’s vision for its natural environment is to re-establish the full spectrum of habitats indigenous to the region while providing unique educational and interpretive opportunities for students and guests.

DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Habitat restoration Budget: \$417,200

Restore 40 acres (2 of the 11 separate ecological management areas delineated in the restoration and management plan—each with its own detailed goals, activities and budget) by enhancing existing native forest; transitioning woodlands, shrublands and grasslands to savanna; restoring prairie; and enhancing wetlands through control of invasive species, prescribed burns, and installation of native seed and live herbaceous and woody plants. Much of the work will be completed through outside contractors.

Outcome	Completion Date
1. Native habitat is restored on 40 acres of state property	6/30/2017

Activity 2: Native wildlife study Budget: \$40,000

Undertake a long-term, longitudinal study of the restoration’s effects on native wildlife including transect surveys and camera trapping in conjunction with the School for Environmental Studies through the Zoo’s existing BioDiscovery Project –a volunteer, citizen-science based program. In May 2013, with help from interns and volunteers the Zoo will begin baseline biodiversity and population status assessments for targeted wildlife, including but not limited to 25 species of mammals, birds, amphibians, reptiles, and butterflies listed as appropriate indicator species in the Zoo’s Restoration and Management Plan. The School will join the study in Fall 2014. A control site will also be surveyed to better understand how native wildlife changes over time in the restored area compared to an adjacent non-restored area.



Environment and Natural Resources Trust Fund (ENRTF)

2014 Main Proposal

Project Title: Minnesota Zoo Site Restoration and Native Wildlife Study

Outcome	Completion Date
<i>1. Phase 1 (baseline before restoration activities begin) wildlife surveys assess biodiversity and population statuses of targeted native wildlife in the restoration area and a comparable area not being immediately restored</i>	<i>5/30/2015</i>
<i>2. Phase 2 (site prep, prescribed fire, & invasive species removal portion of restoration) wildlife surveys assess biodiversity and population statuses of targeted native wildlife in the restoration area and selected unrestored area, and examine changes from Phase 1</i>	<i>12/1/2016</i>
<i>3. Phase 3 (seeding & planting portion of restoration) wildlife surveys assess biodiversity and population statuses of targeted native wildlife in the restoration area and selected unrestored area, and examine changes from Phases 1 and 2</i>	<i>6/30/2017</i>

Activity 3: Design trail through the area and interpret the project for public guests Budget: \$20,000
 Before initiating specific restoration and management plans, the Zoo will work with Dakota County to create a specific location for the North Creek Greenway regional trail through the area. The Zoo will also design and install graphics in the restored area, interpreting restoration goals and activities as well as native wildlife and other ecological aspects of the area. The Zoo will provide similar interpretive data on its website and social media outlets (e.g., Facebook: 60,000 fans). Trail design and engineering will be paid for by Dakota County, not through this proposal.

Outcome	Completion Date
<i>1. Location of proposed trail completed</i>	<i>12/31/2014</i>
<i>2. Restoration and ecological information provided to the public</i>	<i>6/30/2017</i>

III. PROJECT STRATEGY

A. Project Team/Partners

The Zoo project team includes: Tara Harris—Director of Conservation, Ken Kornack—Director of Facilities and Capital Projects, Kim Thomas—Horticulture Supervisor, Katie Talbott—BioDiscovery Project Coordinator, Jessica Madole—Interpretive Program Developer, Kim Quam—Designer, and Josh Le—Social Media and Marketing Coordinator. The Zoo will contract the restoration work. The Zoo will also work with the School of Environmental Studies (Dan Bodette—Principal) and Dakota County (Steve Sullivan—Parks Director.)

B. Timeline Requirements

The Zoo’s BioDiscovery Project is already working to conduct baseline wildlife surveys. School of Environmental Studies will join these activities in Fall 2014. Restoration planning will start in July 2014, with restoration to begin in Spring 2015 and be complete by Summer 2017. Restoration will require modest ongoing maintenance after the grant period. The wildlife surveys will also continue after the grant. The Zoo hopes to continue restoration on other portions of its site, as detailed in its Site Restoration and Management Plan, in the future.

C. Long-Term Strategy and Future Funding Needs

This project is part of the Zoo’s efforts to conserve Minnesota-native wildlife species and their habitats, to encourage outdoor nature-based exploration among youth, and to engage the public in learning about their local environments. We intend to expand our restoration activities and associated wildlife surveys and interpretation as funding is available. Our current BioDiscovery Project is sustained in part with funding from Minnesota’s Clean Water, Land, and Legacy Amendment and we anticipate seeking funding for further restoration activities from the Environment and Natural Resources Trust Fund and other sources. Ongoing site management will be covered by the Zoo’s annual budget.

2014 Detailed Project Budget

Minnesota Zoo Site Restoration and Native Wildlife Study

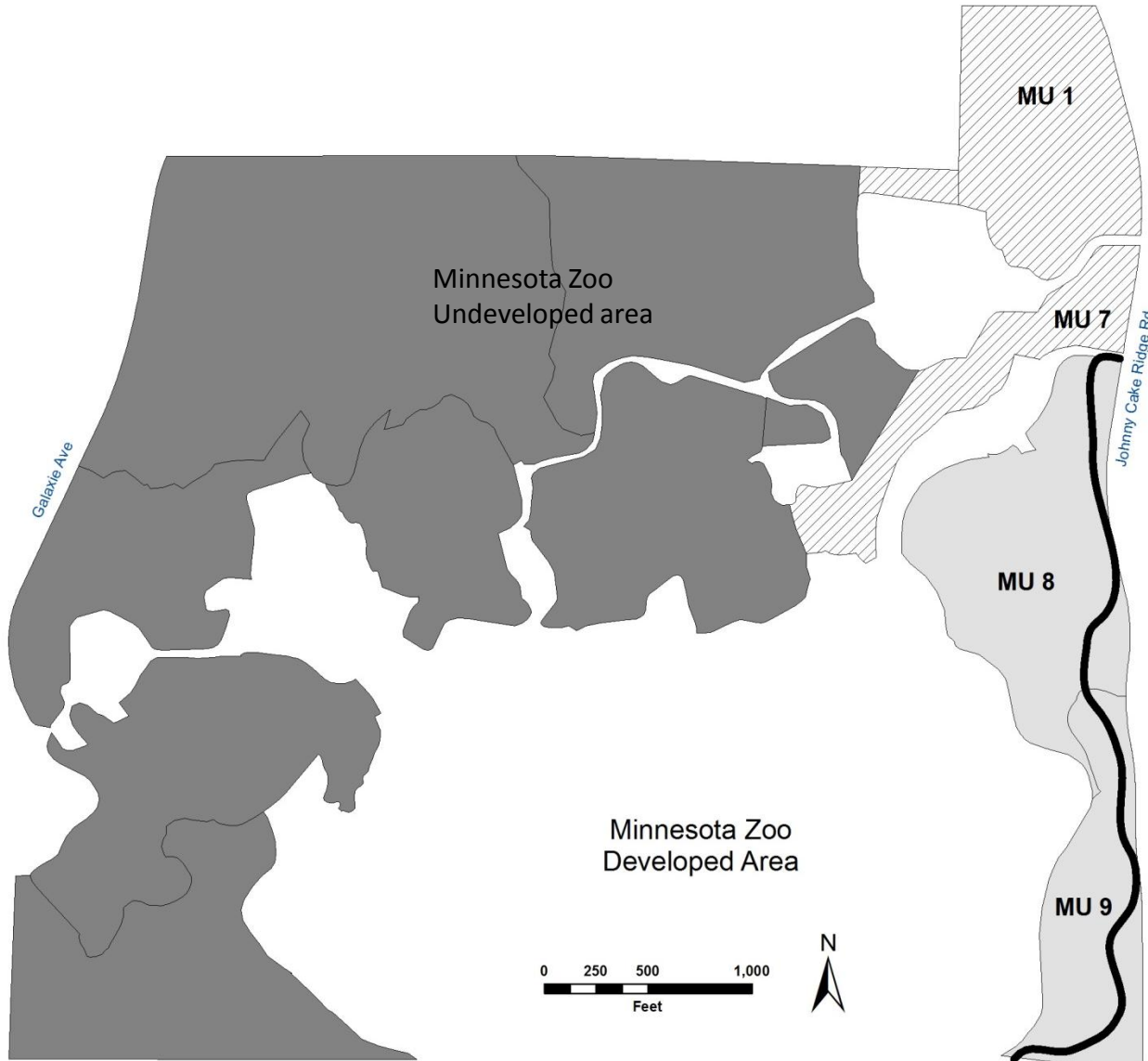
IV. TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND REQUEST BUDGET: 3 years

BUDGET ITEM	AMOUNT
Personnel:	
Zoo Horticulture Supervisor - restoration activity work/supervision (1 classified @ 20% time, salary & benefits)	\$ 18,000
Contracts:	
Restoration contract, 40 acres of restoration work; contractor to be determined based upon RFP. Costs here estimated based upon suggested costs identified in the management plan completed by Applied Ecological Services. Actual costs may be much less.	\$ 399,200
School of Environmental Studies for supervision of and support of students.	\$ 30,000
Restoration and native wildlife graphics printing & installation along public greenway.	\$ 20,000
Equipment/Tools/Supplies:	
Wildlife study supplies (e.g., trail cameras, GPS units, digital cameras for documentation, SD cards, field guides, and miscellaneous field gear)	\$ 10,000
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 477,200





V. OTHER FUNDS

	AMOUNT	Status
Other Non-State \$ Being Applied to Project During Project Period:		
Dakota County funding will cover the cost of engineering and design of the trail. That funding is secured and identified here. Dakota County will also provide additional funding for the construction of the trail itself. That funding is primarily but not entirely secured and includes significant federal transportation dollars. Those amounts are not included here.	\$ 200,000	Secured
Other State \$ Being Applied to Project During Project Period:		
The Zoo's BioDiscovery Project is currently funded by Minnesota's Clean Water, Land, and Legacy Amendment. That program covers land and activities in addition to the activities covered by this proposal and does not include participation by the School for Environmental Studies. Legacy funding here covers the costs to the Zoo of supervising the BioDiscovery project. Other Zoo staff will also be involved in supervision and oversight of the project. Costs for those services are not identified here.	\$ 113,250	Secured. Funded from present to June 30, 2015.
Funding History:		
The restoration and management plan which is the basis for this proposal was previously funded through Minnesota's Clean Water, Land, and Legacy Amendment.	\$ 20,786	Complete

Minnesota Zoo Restoration Management Units (MU) & Proposed Greenway Path



Key

-  Control area
-  Area targeted for restoration in this proposal
-  Management units for future restoration
-  Proposed public greenway path

*note: control areas are also future restoration areas

Land cover types currently present	Target restoration area	Control Area
Red oak/ white oak	X	X
Aspen woodland	X	X
Oak woodland/ brushland	X	
Native-dominated disturbed upland shrubland	X	X
Altered/ Non-native grassland	X	X
Altered/Non-native herbaceous wetland	X	X
Vernal pool	X	X

ORGANIZATION DESCRIPTION: Minnesota Zoological Garden

The Minnesota Zoo, a state agency established more than 35 years ago to provide Minnesota residents and guests with a unique experience available nowhere else to experience exotic animals from around the world in natural habitats and a garden-like setting, is today one of the State's premier cultural and educational institutions.

The Zoo's mission is ***to connect people, animals and the natural world***. Its recently completed Master Plan sets out a vision and goal for the Zoo of becoming a world leading zoo. By creating memorable guest experiences, being a trusted resource for environmental learning, and conducting critical conservation programs, the Zoo will:

- Increase environmental literacy statewide.
- Strengthen animal conservation efforts.
- Create a major tourist destination and cultural icon for Minnesota.

With well over 1.3 million guests a year, state-wide outreach programs and a website visited by millions, the Zoo is in a unique position to strengthen Minnesotans' awareness and understanding of our State's cultural commitment to wildlife, science and conservation. It is, in fact, the State's largest environmental center.

The Minnesota Zoo has also become a worldwide leader in conservation. True to its original core values, the Zoo participates in more than 60 Species Survival Plans (coordinated by the American Zoo and Aquarium Association), an ongoing effort to manage and breed zoo animals that may face extinction in the wild. The Zoo also has a long history and strong partnership with two internationally known conservation programs—the International Species Information System, a program that provides animal records keeping software and database services to zoos around the world, and the Conservation Breeding Specialist Group, a branch of the International Union for the Conservation of Nature. The Zoo has recently enhanced its efforts to focus on Minnesota wildlife and habitats, including efforts to conserve Minnesota's moose and prairie butterfly populations. It is also addressing habitat issues on its own 485 site, looking to restore undeveloped areas to native conditions and exploring ways to provide educational opportunities to interpret those efforts.

The Zoo has a proven record of using its resources efficiently and effectively, ***matching*** the State's investment with private funds and earned income. Currently less than 25% of its annual operating budget of almost \$24 is covered by annual state general fund appropriations.

PROJECT MANAGER: Ken Kornack

Ken Kornack is the Director of Facilities and Capital Projects at the Minnesota Zoo where he has worked as a contractor or an employee since 2005. In that time, Ken has successfully led the development and implementation of the 3M Penguins of the African Coast exhibit, as well as the award winning Russia's Grizzly Coast exhibit- both ultimately being LEED certified. It was with this eye to detail and sustainability that Ken completed the Zoo's Facility Master Plan, setting the development priorities and roadmap for the next 10+ years. Prior to his time at the Zoo, Ken wore many hats at the Science Museum of Minnesota, where in his 14 year tenure he led the development, fabrication and management of many projects, including the zero-energy Science House. Ken has an undergraduate degree in Civil Engineering from the University of Minnesota.