Environment and Natural Resources Trust Fund 2016 Request for Proposals (RFP)

Project Title: ENRTF ID: 096-C Creating Southwest Minnesota High School Student Wildlife Champions
Category: C. Environmental Education
Fotal Project Budget: \$ 147,400 Proposed Project Time Period for the Funding Requested: 2 years, July 2016 to December 2017
Summary:
The Zoo will engage high school students in critical prairie conservation projects by using its unique animal collection and state-of-the-art technology to deliver hands-on learning in 12 southwestern Minnesota schools.
Name: Carol Strecker
Sponsoring Organization: Minnesota Zoo
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Apple Valley MN 55124
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Web Address www.mnzoo.org
Region: SW County Name: Big Stone, Chippewa, Cottonwood, Jackson, Kandiyohi, Lac qui Parle, Lincoln, Lyon, McLeod, Murray, Nobles, Pipestone, Redwood, Renville, Rock, Swift, Yellow Medicine
City / Township:
Alternate Text for Visual:
A visual flowchart of project activities with photos of students engaging in prairie wildlife conservation.
Funding Priorities Multiple Benefits Outcomes Knowledge Base
Extent of Impact Innovation Scientific/Tech Basis Urgency
Capacity Readiness Leverage TOTAL%

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Environment and Natural Resources Trust Fund (ENRTF) 2016 Main Proposal

Project Title: Creating Southwest Minnesota High School Student Wildlife Champions

PROJECT TITLE: Creating Southwest Minnesota High School Student Wildlife Champions

I. PROJECT STATEMENT

The decline of wildlife populations and tall grass prairie habitats in southwestern Minnesota is well documented. The Minnesota Zoo is currently addressing this issue by returning pure-bred bison herds to Blue Mounds State Park and protecting imperiled prairie butterflies. Complementing this work, the Zoo will use its unique animal collection and state-of-the art technology to engage students in these critical conservation issues to deliver a new hands-on learning program in 12 southwestern Minnesota high schools. This program is designed to:

- Create awareness and understanding of prairie conservation issues,
- Build appreciation for wildlife through hands-on encounters with Zoo animals,
- Inspire conservation action through service learning projects, and
- Promote lifelong conservation interest.

The Wildlife Champions program will include:

- Selecting 12 SW MN high schools for participation through a competitive application process.
- Training local school teachers to supervise and facilitate student projects.
- Presenting workshops for students at each school featuring Zoo naturalists and Zoo ambassador animals
- Student design of prairie wildlife conservation projects with online mentoring by the Zoo.
- Student-led service projects implemented in each community.
- Project exhibition and recognition for all 12 schools at the Minnesota Zoo.
- Program evaluation and assessment of changes in conservation understanding.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Identify and Train Partner School Teachers and Students

Complete competitive application process to identify partner schools and teachers. Partner teachers attend full day workshop facilitated by Zoo staff to be trained to facilitate student conservation projects. Zoo visits each school to deliver pre-assessment and hands-on student workshops featuring live Zoo animal ambassadors.

Budget: \$47,800

Outcome	Completion Date
1. 12 partner schools (out of a possible 52 in SW MN) identified by competitive process	Sept 30, 2016
2. Up to 750 students and 12 teachers trained to develop prairie conservation projects	Nov 30, 2016
3. Attitudinal pre-assessment delivered to all participating students and teachers	Nov 30, 2016

Activity 2: Student-led Prairie Conservation Project Design and Implementation

Budget: \$28,500

Participating schools research local prairie conservation issues and design and implement local conservation projects (e.g. restoration projects, wildlife surveys, etc.) that impact sustainability of one or more prairie wildlife species. Zoo provides support and mentoring during project design and implementation through series of scheduled interactive engagements through online/ distance learning technology.

Outcome	Completion Date
1. 36 interactive distance learning sessions completed (3/school x 12 partner schools) to	Mar 31, 2017
guide and advise students through conservation project design	
2. 12 local SW MN prairie habitat and wildlife conservation projects implemented	Sept 1, 2017

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Environment and Natural Resources Trust Fund (ENRTF) 2016 Main Proposal

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Activity 3: Student Project Exhibition and Recognition Event at Minnesota Zoo

Budget: \$71,100

Participating student leaders and teachers showcase their projects at the Minnesota Zoo during the Wildlife

Champions Expo—a public exhibition and recognition event. Students are recognized for their contribution to

prairie conservation through Zoo media and communications, press releases, and a return live animal

presentation by Zoo staff for all student and/or community participants. Post assessment completed.

Outcome	Completion Date
1. Results of 12 partner school's student prairie restoration or wildlife survey conservation	Sept 30, 2017
projects showcased and recognized at Wildlife Champions Expo event at Minnesota Zoo.	
3. Program evaluation indicates degree of increase in conservation understanding as a	Dec 31, 2017
direct result of program engagement for participating school students and teachers.	

III. PROJECT STRATEGY

A. Project Team/Partners

The Wildlife Champions program will be facilitated by the Minnesota Zoo with participating partner schools from Southwestern Minnesota. Partner schools will be identified through a competitive application process based on interest, capacity, and need. The Zoo will provide teacher training for participating teachers at a centralized location convenient for teachers, and student workshops onsite at each participating school. Mentoring and guidance for student conservation projects will be provided by MN Zoo education and conservation staff as well as non-Zoo wildlife conservation professionals recruited as necessary. The Southwest/West Central Service Cooperative, a State designated regional consortium that provides educational and administrative services to schools, will assist with school recruitment, ongoing communication, and recognition.

Project Partners Receiving Funds:

- Minnesota Zoo [\$115,400]: Facilitate and administer overall program
- Partner teachers [\$12,000]: \$1000 contract per 12 teachers to direct student projects
- Evaluation firm TBD via RFP [\$20,000]: Develop and execute program evaluation protocol Project Partners Not Receiving Funds:
 - Southwest/West Central Service Cooperative: Assist with school recruitment, communication, and recognition

B. Project Impact and Long-Term Strategy

Engaging students in locally-relevant prairie conservation projects will benefit prairie habitat and wildlife populations as well as build community awareness and appreciation for the need to preserve and sustain healthy ecosystems. The students' work will infuse new data into long-term monitoring data sets and extend the reach of restoration efforts. Students participating in *Wildlife Champions* will gain valuable 21st-century skills in critical thinking, research and design, and communication—essential assets when preparing for potential careers in science, technology, engineering, and mathematics (STEM). Upon successfully completing the *Wildlife Champions* program pilot, the Zoo will seek funding to both continue and expand the program to additional schools in Southwestern Minnesota as well as to additional regions of the state.

C. Timeline Requirements

Wildlife Champions will require 2 years for full implementation. Site visits to schools will take place during the 2016-2017 academic year, when safe travel and temperature conditions exist for the transportation of ambassador animals. Prairie conservation projects will be implemented in spring/summer 2017, allowing for projects that require growing season activities. Expo and final evaluation will be completed in fall 2017.

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2016 Detailed Project Budget

Project Title: Creating Southwest Minnesota High School Student Wildlife Champions

IV. TOTAL ENRTF REQUEST BUDGET: 2 years

BUDGET ITEM	<u>AMOUNT</u>	
Personnel:	\$	-
Project Manager TBD (70% salary, 30% benefits): 15% FTE for 1.5 years	\$	22,500
Project Coordinator TBD (70% salary, 30% benefits): 25% FTE for 1.5 years	\$	30,000
Teacher/Student Materials Developer (70% salary, 30% benefits): 10% FTE for the first three months	\$	1,800
of the project		
Graphic Designer (70% salary, 30% benefits): 10% FTE for approximately three months during the	\$	1,000
project		
Professional/Technical/Service Contracts:	\$	-
Evaluation firm (TBD via RFP) to design and execute program evaluation protocol	\$	20,000
Equipment/Tools/Supplies:	\$	-
Student conservation service project supplies - up to \$500/school x 12 schools	\$	6,000
Supplies for teacher training and Wildlife Champions Expo at Minnesota Zoo	\$	1,000
Travel:	\$	-
Mileage (~5000 miles), lodging, and meals for Zoo travel to schools for student workshops & for	\$	5,000
travel to centralized location for teacher training		
Additional Budget Items:	\$	-
Printing of student and teacher project support materials	\$	2,000
Partner school student workshops - 2/school x 12 schools @ \$1000 ea - to bring live animals to	\$	24,000
schools for initial conservation project development and followup		
Partner school distance learning guidance/mentoring sessions - 3 sessions/school x 12 schools	\$	5,000
@\$140 ea - to connect MN Zoo educators and conservation staff with students to review and advise		
conservation project design and methodology		
Partner school teacher contracts - \$1000 ea x 12 teachers to supervise student conservation projects	\$	12,000
throughout design and implementation		
Transportation for participating students and teachers to attend Wildlife Champions Expo at	\$	9,600
Minnesota Zoo (up to \$800 per school x 12 schools)		
Wildlife Champions Expo student conservation project exhibition and recognition event at Minnesota	\$	7,500
Zoo - costs estimated at \$10/student x up to 750 students		
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$	147,400

V. OTHER FUNDS

V. OTHER FUNDS	1		
SOURCE OF FUNDS	<u>AM</u>	<u>OUNT</u>	<u>Status</u>
Other Non-State \$ To Be Applied To Project During Project Period: The Zoo has not included	\$	-	N/A
overhead or indirect costs associated with this project in this budget. Those costs will be absorbed			
by the Zoo and are covered by other Zoo funds coming from general fund appropriations, earned			
income or private charitable gifts.			
Other State \$ To Be Applied To Project During Project Period: The Zoo has not included overhead or	\$	-	N/A
indirect costs associated with this project in this budget. Those costs will be absorbed by the Zoo and			
are covered by other Zoo funds coming from general fund appropriations, earned income or private			
charitable gifts.			
In-kind Services To Be Applied To Project During Project Period:			Pending
Southwest/West Central Service Cooperative: school recruitment, communication, recruitment	\$	2,000	
@\$2000 total			
Widlife conservation professionals as mentors to student projects @\$1000 ea x 12 projects	\$	12,000	
Funding History:	\$	-	N/A
This is a new project and has not been previously funded.			
Remaining \$ From Current ENRTF Appropriation:	\$	-	N/A

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Creating Southwest Minnesota High School Student Wildlife Champions

PROGRAM OVERVIEW

Teacher training

For 12 local high school teachers who will be contracted to supervise student projects

In-school student workshops

For up to 750 high school students in 12 partner schools, featuring live animal ambassadors from MN Zoo

Online mentoring via distance learning

Three sessions per school, facilitated by Zoo conservation and education staff, to advise project design

Student-led prairie habitat restoration and wildlife biology projects in their local communities

Students design and complete local hands-on prairie conservation projects that benefit wildlife

Student project exhibition and recognition event at MN Zoo

Up to 750 students and partner teachers showcase their conservation projects in a science fair-like exhibition

Program evaluation and assessment of impact on conservation understanding

External evaluator assesses the impact of program on student and teacher overall conservation ethic



SW MN and now exists in less than one percent of its original range. The Minnesota Zoo is actively engaged in prairie species conservation projects involving the American bison and imperiled prairie butterflies.



12 partner high schools will be chosen via competitive application from the SW/WC Service Cooperative service area. The Coop is a state designated regional consortium that provides educational and administrative services to over 50 schools and other entities in its service area. The Coop will assist with school recruitment and communications.

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ORGANIZATION DESCRIPTION: Minnesota Zoological Garden

The Minnesota Zoo, a state agency established in 1978 to provide Minnesota residents and guests with a unique opportunity to experience animals from the exotic to the familiar in natural habitats, 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 to save wildlife.* With over 1.2 million guests a year and state-wide outreach programs, the Zoo is in a unique position to strengthen Minnesotans' awareness and understanding of our State's cultural commitment to wildlife, science and conservation. The Zoo is, in fact, the State's largest environmental educator with more than 450,000 students and others participating in Zoo education programs.

The Minnesota Zoo has also become a worldwide leader in conservation—participating in numerous efforts to manage and breed zoo animals that may face extinction in the wild. 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-acre 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.

PROJECT MANAGER: Carol Strecker

Carol Strecker is the Director of Education at the Minnesota Zoo. Carol has a Bachelor's Degree in Ecology, Evolution, and Behavioral Biology, and a Master's Degree of Education in Science Education and has worked at the Minnesota Zoo since 2009. Carol draws on her 20 years of experience in the field of informal science education in museums, zoos, botanical gardens, and environmental education organizations to ensure all activities of the Minnesota Zoo's education department serve to inspire and teach participants to act on behalf of wildlife. Her professional experience includes student instruction, designing and developing both formal and informal educational curriculum, designing and facilitating professional development opportunities for classroom teachers, developing community partnerships to advance science and environmental education in local schools, and managing national and local programs that utilize distance learning technology to connect students and teachers directly to scientists working in the field.

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