



Environment and Natural Resources Trust Fund (ENRTF) M.L. 2016 Work Plan

Date of Report: May 29, 2016

Date of Next Status Update Report: January 2017

Date of Work Plan Approval: June 7, 2016

Project Completion Date: June 30, 2018

Does this submission include an amendment request? No

PROJECT TITLE: Wildlife and Habitat Conservation Education for Southwest Minnesota High Schools

Project Manager: Carol Strecker

Organization: Minnesota Zoo

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Location: Big Stone, Swift, Kandiyohi, Meeker, Lac qui Parle, Chippewa, McLeod, Renville, Jackson, Lincoln, Lyon, Redwood, Pipestone, Murray, Cottonwood, Rock, Nobles and Yellow Medicine.

Total ENRTF Project Budget:

ENRTF Appropriation: \$147,000

Amount Spent: \$0

Balance: \$147,000

Legal Citation: M.L. 2016, Chp. 186, Sec. 2, Subd. 05e

Appropriation Language:

\$147,000 the second year is from the trust fund to the Minnesota Zoological Garden to engage high school students in critical prairie wildlife and habitat conservation projects by using the zoo's unique animal collections and state-of-the-art technology to deliver hands-on learning in 12 southwestern Minnesota high schools.

I. PROJECT TITLE: Wildlife and Habitat Conservation Education for Southwest Minnesota High Schools

II. 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 wildlife 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 wildlife conservation action through service learning projects, and
- Promote lifelong wildlife 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 in prairie wildlife conservation issues and techniques to equip them with the expertise necessary to supervise and facilitate student-designed wildlife conservation service projects.
- Workshops for students at each school featuring Zoo naturalists and Zoo ambassador animals to inspire and equip students with the confidence and skills necessary to design their own local prairie wildlife conservation service projects.
- Student design of prairie wildlife conservation service projects, with regular assistance and mentoring from Minnesota Zoo conservation and naturalist staff via distance learning.
- Student-led service projects implemented in each community.
- *Wildlife Champions* Expo student project exhibition and recognition for all 12 schools at the Minnesota Zoo.
- Follow up workshops for students at each partner school
- Program evaluation and assessment of changes in student conservation understanding and attitudes.

III. OVERALL PROJECT STATUS UPDATES:

Project Status as of January 2017:

Project Status as of July 2017:

Project Status as of January 2018:

Overall Project Outcomes and Results:

IV. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1: Identify and Train Partner School Teachers and Students

Description: Utilizing the established relationships and communication tools already in place by the Southwest/West Central Service Cooperative, the Zoo will recruit and solicit applications from teachers in southwestern MN high schools to participate in the project. Twelve schools will be selected as partner schools. Partner teachers attend a full day workshop at a centralized southwestern MN location, facilitated by Zoo staff, to be trained to oversee student conservation projects.

Following a competitive bid process, the Zoo will select an education evaluation firm to develop and deliver evaluation activities to assess prairie wildlife conservation understanding and attitudes prior to and as a result of the project. The Zoo visits each school to deliver pre-assessment and hands-on student workshops featuring live Zoo animal ambassadors to inspire students and equip them with the confidence, skills, and guidance required to begin designing local prairie conservation service projects.

Summary Budget Information for Activity 1:

ENRTF Budget: \$ 47,400
Amount Spent: \$ 0
Balance: \$ 47,400

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 Status as of January 2017:

Activity Status as of July 2017:

Activity Status as of January 2018:

Final Report Summary:

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

Description: 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. The Minnesota Zoo provides support and mentoring during project design and implementation through a series of scheduled interactive engagements via online/ distance learning technology.

The Zoo also recruits wildlife conservation professionals with expertise relevant to student projects to serve as mentors or advisors for student projects and will facilitate communication and interaction. Students submit their projects for review and will receive assistance and constructive feedback to ensure the greatest potential impact of the project. Partner teachers request funds from the Zoo for equipment and supplies required for project implementation, which may take place during spring or summer months, depending upon the project.

Throughout design and implementation, the Minnesota Zoo communicates regularly with partner teachers and students and facilitates communication and sharing of project ideas and activities between partner schools and within partner school communities. As projects are implemented, the Zoo works with partner school communities' local media to recognize student efforts.

Summary Budget Information for Activity 1:

ENRTF Budget: \$ 28,500
Amount Spent: \$ 0
Balance: \$ 28,500

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

Activity Status as of January 2017:

Activity Status as of July 2017:

Activity Status as of January 2018:

Final Report Summary:

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

Description: Participating student leaders and teachers showcase their projects at the Minnesota Zoo during the *Wildlife Champions* Expo—a public exhibition and student recognition event. Press releases will be sent to partner school communities’ local media regarding the Expo and local stakeholders will be invited to participate in the event.

The Zoo will produce a report that details the conservation impact of each student project and celebrates the partner schools, students, and teachers for their contribution to prairie conservation in Minnesota.

The Zoo returns to each partner school to host a local recognition opportunity featuring a live animal presentation for all student and/or community participants unable to attend the *Wildlife Champions* Expo at Minnesota Zoo. Following the recognition events, students and teachers will complete a post assessment. Evaluation partner will analyze assessment data and provide a report on the project’s impact on student and teacher conservation understanding and attitudes.

Summary Budget Information for Activity 1:

ENRTF Budget: \$ 71,100
Amount Spent: \$ 0
Balance: \$ 71,100

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

Activity Status as of January 2017:

Activity Status as of July 2017:

Activity Status as of January 2018:

Final Report Summary:

V. DISSEMINATION:

Description: The activities and results of the student-designed prairie wildlife conservation service projects will be featured in the *Wildlife Champions* Expo—a science-fair-like student exhibition event at the Minnesota Zoo, accompanied by press releases encouraging recognition of partner school participation in southwestern Minnesota. The Zoo will also host local recognition events featuring live Zoo animal ambassadors at each partner school.

The Zoo will produce a report that details the conservation impact of each student project and celebrates the partner schools, students, and teachers for their contribution to prairie conservation in Minnesota. This report

will include the evaluation results indicating the extent to which the project impacted student and teacher conservation understanding and attitudes.

Ongoing project activities and final project results will be featured regularly in Minnesota Zoo public communications to subscribed members, non-members, and stakeholders. These communications will be posted on the Zoo’s website at www.mnzoo.org.

Status as of January 2017:

Status as of July 2017:

Status as of January 2018:

Final Report Summary:

VI. PROJECT BUDGET SUMMARY:

A. ENRTF Budget Overview:

Budget Category	\$ Amount	Overview Explanation
Personnel:	\$ 55,300	1 project manager at 15% FTE for 1.5 years (\$22,500); 1 project coordinator at 25% FTE for 1.5 years (\$30,000); 1 teacher/student materials developer at 10% FTE for first three months of project (\$1,800); 1 graphic designer at 10% FTE for approximately three months during the project (\$1,000)
Professional/Technical/Service Contracts:	\$ 32,000	1 contract for evaluation services TBD through competitive bid (\$20,000); 12 contracts with individual partner school teachers (1 teacher contract per partner school) to supervise student conservation projects throughout design and implementation (\$12,000)
Equipment/Tools/Supplies:	\$ 7,000	Student conservation service project supplies – \$500/school x 12 schools (\$6,000); supplies for teacher training and <i>Wildlife Champions</i> Expo at Minnesota Zoo (\$1,000)
Printing:	\$ 2,000	Printing of students and teacher project support materials (\$2,000)
Travel Expenses in MN:	\$ 4,600	Mileage (~5,000 miles), lodging, and meals for Zoo travel to schools for student workshops and for travel to centralized location for teacher training
Other:	\$ 46,100	Partner school student workshops – 2 workshops/school x 12 schools @ \$1,000 each (\$24,000); Partner school distance learning sessions – 3 sessions/school x 12 schools @ \$140 each (\$5,000); Transportation for participating students and teachers to attend <i>Wildlife Champions</i> Expo at Minnesota Zoo - \$800/school x 12 schools (\$9,600); <i>Wildlife Champions</i> Expo student conservation project

		exhibition and recognition event at Minnesota Zoo - \$10/student x 750 students (\$7,500)
TOTAL ENRTF BUDGET:	\$ 147,000	

Explanation of Use of Classified Staff: Personnel to be associated with this project are not paid out of the general fund.

Explanation of Capital Expenditures Greater Than \$5,000: N/A

Number of Full-time Equivalents (FTE) Directly Funded with this ENRTF Appropriation: 0.65 FTEs

Number of Full-time Equivalents (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation: 0.18 FTEs

B. Other Funds:

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
Non-state			
Southwest/West Central Service Cooperative (In-kind Support)	\$2,000	\$	Partner school recruitment and communication
Wildlife conservation professionals @ \$1,000ea x 12 projects (In-kind Support)	\$12,000		Serve as mentors to students and advisors for student conservation service projects.
State			
	\$	\$	
TOTAL OTHER FUNDS:	\$14,000	\$	

VII. PROJECT STRATEGY:

A. Project 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 will deliver 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 [\$115,000]: Facilitate and administer overall program.
- Partner teachers [\$12,000]: \$1000 contract per 12 teachers to direct student projects.
- Evaluation firm TBD [\$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.
- Non-Zoo wildlife conservation professionals: Serve as mentors or advisors to students to ensure maximum impact of local conservation service projects.

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). Furthermore, conservation psychology research indicates that experiential learning in conservation science, such as the activities students and teachers will be engaged in during this project, leads to the development of a long-term conservation ethic. Cultivating a generation of conservation-minded citizens is critical to the preservation of Minnesota's natural heritage.

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. Funding History: N/A

VIII. FEE TITLE ACQUISITION/CONSERVATION EASEMENT/RESTORATION REQUIREMENTS:

A. Parcel List: N/A

B. Acquisition/Restoration Information: N/A

IX. VISUAL COMPONENT or MAP(S): See attached graphic.

X. RESEARCH ADDENDUM: N/A

XI. REPORTING REQUIREMENTS:

Periodic work plan status update reports will be submitted no later than January 2017, July 2017, and January 2018. A final report and associated products will be submitted between June 30 and August 15, 2018.

Environment and Natural Resources Trust Fund

M.L. 2016 Project Budget



Project Title: Wildlife and Habitat Conservation Education for Southwest Minnesota High Schools

Legal Citation: M.L. 2016, Chp. 186, Sec. 2, Subd. 05e

Project Manager: Carol Strecker

Organization: Minnesota Zoo

M.L. 2016 ENRTF Appropriation: \$ 147,000

Project Length and Completion Date: 2 Years, June 30, 2018

Date of Report: May 29, 2016

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Activity 1 Balance	Activity 2 Budget	Amount Spent	Activity 2 Balance	Activity 3 Budget	Amount Spent	Activity 3 Balance	TOTAL BUDGET	TOTAL BALANCE
BUDGET ITEM	Identify and Train Partner School Teachers and Students			Student-led Prairie Conservation Project Design and Implementation			Student Project Exhibition and Recognition Event at Minnesota Zoo				
Personnel (Wages and Benefits)	\$20,300	\$0	\$20,300	\$17,500	\$0	\$17,500	\$17,500	\$0	\$17,500	\$55,300	\$55,300
Project Manager: \$22,500 (70% salary, 30% benefits): 15% FTE for 1.5 years											
Project Coordinator: \$30,000 (70% salary, 30% benefits): 25% FTE for 1.5 years											
Teacher/Student Materials Developer: \$1,800 (70% salary, 30% benefits): 10% FTE for the first three months of the project											
Graphic Designer: \$1,000 (70% salary, 30% benefits): 10% FTE for first three months of the project											
Professional/Technical/Service Contracts											
TBD (competitive bid): education evaluation services	\$10,000	\$0	\$10,000				\$10,000	\$0	\$10,000	\$20,000	\$20,000
TBD (competitive application): 12 contracts with individual partner school teachers (1 teacher contract per partner school) to supervise student conservation projects throughout design and implementation							\$12,000	\$0	\$12,000	\$12,000	\$12,000
Equipment/Tools/Supplies											
Teacher training supplies: field conservation tools	\$500	\$0	\$500							\$500	\$500
Wildlife Champions Expo supplies: awards							\$500	\$0	\$500	\$500	\$500
Student service project supplies - \$500 per school x 12 schools: field tools - type will vary by project				\$6,000	\$0	\$6,000				\$6,000	\$6,000
Printing											
Student and teacher project support materials	\$2,000	\$0	\$2,000							\$2,000	\$2,000
Travel expenses in Minnesota											
Travel to partner schools for student workshops. Mileage: \$3,500; lodging: \$600; meals: \$500	\$2,800	\$0	\$2,800				\$1,800	\$0	\$1,800	\$4,600	\$4,600
Other											
Partner school student workshops - 2/school x 12 schools @ \$1000 ea	\$12,000	\$0	\$12,000				\$12,000	\$0	\$12,000	\$24,000	\$24,000
Partner school distance learning guidance/mentoring sessions - 3 sessions/school x 12 schools @ \$140 ea				\$5,000	\$0	\$5,000				\$5,000	\$5,000
Transportation (bussing) costs for partner schools to attend Wildlife Champions Expo at Minnesota Zoo - \$800/school x 12 schools							\$9,600	\$0	\$9,600	\$9,600	\$9,600
Wildlife Champions Expo student conservation project and recognition event at Minnesota Zoo - \$10/student x 750 students.							\$7,500	\$0	\$7,500	\$7,500	\$7,500
COLUMN TOTAL	\$47,600	\$0	\$47,600	\$28,500	\$0	\$28,500	\$70,900	\$0	\$70,900	\$147,000	\$147,000

Wildlife and Habitat Conservation Education for Southwest Minnesota High Schools

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



Tallgrass prairie once dominated the landscape in 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.



Southwest/
West Central
Service Cooperative

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 be engaged to assist with school recruitment and communications.

