

2016 Project Abstract

For the Period Ending June 30, 2018

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

PROJECT MANAGER: Carol Strecker

AFFILIATION: Minnesota Zoo

MAILING ADDRESS: 13000 Zoo Blvd

CITY/STATE/ZIP: Apple Valley, MN 55124

PHONE: 952-431-9568

E-MAIL: carol.strecker@state.mn.us

WEBSITE: www.mnzoo.org

FUNDING SOURCE: Environment and Natural Resources Trust Fund

LEGAL CITATION: M.L. 2016, Chp. 186, Sec. 2, Subd. 05e

APPROPRIATION AMOUNT: \$147,000

AMOUNT SPENT: \$105,313

AMOUNT REMAINING: \$41,687

Overall Project Outcome and Results

The Minnesota Zoo is currently addressing the decline of wildlife populations and tall grass prairie habitats in southwestern Minnesota by returning pure-bred bison herds to Blue Mounds State Park and protecting imperiled prairie butterflies. Complementing this work, the Zoo engaged students in prairie conservation projects in 12 southwestern Minnesota high schools in order to inspire wildlife conservation action and promote lifelong wildlife conservation interest. The *Wildlife Champions* project included specialized training for 18 high school teachers to equip them to supervise and facilitate student-driven prairie wildlife conservation projects in their communities. Minnesota Zoo naturalists visited each school to deliver hands-on student workshops to 787 students 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. Projects included introducing fire to prairies, planting native flowers and grasses, protecting native pollinators, prairie land management, creating interpretive areas, protecting native mammals and birds, collecting seeds, and bee keeping. Schools were provided funds in order to procure conservation tools and supplies to implement their projects.

Students presented their projects at a final *Wildlife Champions* Expo event at the Minnesota Zoo and completed surveys regarding the impact the project had on their knowledge and attitudes towards prairies and conservation. Before beginning this project, 70% of students reported having no or very little knowledge of prairies and the conservation issues facing them. After completion, 86% of respondents reported having high levels of expertise and knowledge in this area, representing a degree of increase of 81%. In addition, 76% of respondents reported that they thought that prairies were important and valuable to the Minnesota landscape, and over 50% of reporting students said that they planned to work with prairies and prairie restoration in the future.

Project Results Use and Dissemination

Student prairie conservation projects were featured at the Minnesota Zoo's *Wildlife Champions* Expo event on May 17, 2017. Eighteen partner teachers and 368 partner high school students attended the event, presenting their work in a science-fair-like exhibition, and engaged with Zoo experts doing work in the field of prairie wildlife management.



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

Date of Report: August 17, 2018

Final Report

Date of Work Plan Approval: June 7, 2016

Project Completion Date: June 30, 2018

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

Project Manager: Carol Strecker

Organization: Minnesota Zoo

Mailing Address: 13000 Zoo Blvd

City/State/Zip Code: Apple Valley, MN 55124

Telephone Number: (952) 431-9568

Email Address: carol.strecker@state.mn.us

Web Address: www.mnzoo.org

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:	\$105,313
	Balance:	\$41,687

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:

Twelve partner schools from southwestern Minnesota were selected through a competitive process. Representatives from the schools participated in an all-day teacher workshop to gain knowledge and skills related to prairie conservation and service learning in order to facilitate projects design and implementation. The Zoomobile visited schools and provided students with context for the project and inspired them to act through interactions with live animal ambassadors. Students and teachers began designing local prairie wildlife conservation service project and began implementation.

Project Status as of July 2017:

Twelve partner schools from Southwestern Minnesota high schools were selected and trained in prairie wildlife conservation issues and techniques. With guidance from Minnesota Zoo, students designed and began to implement prairie wildlife conservation projects in their communities. In May, participating schools presented their work and celebrated their successes at the Minnesota Zoo's *Wildlife Champions* Expo. In post-surveys, students reported an increase in their knowledge and value of the Minnesota prairies.

Project Status as of January 2018:

Due to staffing changes, final project celebrations with Zoomobile visits to school sites will take place in spring, 2018. Additional follow-up longitudinal surveys will track student and educator retention of knowledge and value of the Minnesota prairies.

Final Report Summary:

Overall Project Outcomes and Results:

The Minnesota Zoo is currently addressing the decline of wildlife populations and tall grass prairie habitats in southwestern Minnesota by returning pure-bred bison herds to Blue Mounds State Park and protecting imperiled prairie butterflies. Complementing this work, the Zoo engaged students in prairie conservation projects in 12 southwestern Minnesota high schools in order to inspire wildlife conservation action and promote lifelong wildlife conservation interest. The *Wildlife Champions* project included specialized training for high school teachers to equip them to supervise and facilitate student-driven prairie wildlife conservation projects in their communities. Minnesota Zoo naturalists visited each school to deliver 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. Projects included introducing fire to prairies, planting native flowers and grasses, protecting native pollinators, prairie land management, creating interpretive areas, protecting native mammals and birds, collecting seeds, and bee keeping. Schools were provided funds in order to procure conservation tools and supplies to implement their projects. Students presented their projects at a final *Wildlife Champions* Expo event at the Minnesota Zoo and completed surveys regarding the impact the project had on their knowledge and attitudes towards prairies and conservation. Before beginning this project, 70% of students reported having no or very little knowledge of prairies and the conservation issues facing them. After completion, 86% of respondents reported having high levels of expertise and knowledge in this area. In addition, 76% of respondents reported that they thought that prairies were important and valuable to the Minnesota landscape, and 29% of reporting students said that they planned to work with prairies and prairie restoration in the future.

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: \$ 47,600

Amount Spent: \$ 35,528

Balance: \$ 12,072

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

Activity Status as of January 2017:

In July 2016, twelve partner schools were selected out of a possible 52 in southwestern Minnesota through a competitive process. High Schools included: Marshall Area Technical Ed Center (MATEC), MACCRAY, Benson, Glencoe Silver Lake, Bold, Hills-Beaver Creek, Ortonville, Canby, Hutchinson, Lester Prairie, Buffalo Lake-Hector-Stewart and New London-Spicer.

An all-day teacher workshop was held on Tuesday, August 16, 2016 at the Minnesota DNR Southern Regional Office in New Ulm, Minnesota. Eighteen teachers were trained representing the 12 selected schools. The workshop provided teacher partners with an orientation to the Wildlife Champions program as well as a brief overview of prairie ecology, the state of the prairie biome in Minnesota, threats to the prairie, and examples of current prairie conservation projects. Resources were provided for participants for prairie ecology, conservation, restoration, and service learning.

In October and November of 2016, each school received a follow-up from the Zoomobile Prairie Program. This visit and training featured live animal ambassadors that helped to highlight the issues facing this rare habitat in Minnesota and prepare students with the confidence and background to begin designing local prairie conservation service projects. A total of 787 students participated in these trainings.

Due to changes in staffing, a pre-assessment was not conducted for student and teachers in Fall 2016. However, post-testing will be conducted in May 2017 in order to assess attitudes, conservation knowledge and community engagement. This can be used as a baseline in the event that schools choose to participate in Wildlife Champions in the future.

Activity Status as of July 2017:

Activity 1 was completed before the January report. Post-project surveying was conducted with students to assess changes in knowledge and attitudes (see Activity 3).

Activity Status as of January 2018:

Complete; no activity.

Final Report Summary:

Twelve partner schools were selected to participate in the Wildlife Champions project from southwestern Minnesota communities including Marshall Area Technical Ed Center (MATEC), MACCRAY, Benson, Glencoe Silver Lake, Bold, Hills-Beaver Creek, Ortonville, Canby, Hutchinson, Lester Prairie, Buffalo Lake-Hector-Stewart and New London-Spicer. Eighteen teachers received training to initiate and oversee student projects. Resources were provided to assist students and teachers to develop and implement their plans.

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 2:

ENRTF Budget: \$ 28,500
Amount Spent: \$ 19,919
Balance: \$ 8,581

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:

Participating schools designed local conservation projects after selecting one or more prairie wildlife species to impact. Project focuses ranged from creating environmental interpretive paths to raising native honeybees or planting native plants to support butterfly populations.

Communication with teacher partners was coordinated through Basecamp, an online interactive collaborative tool. Due to staffing changes, interactive distance learning sessions were not completed in this timeframe.

Activity Status as of July 2017:

Participating schools continued to fine tune their conservation projects and prepare their final presentations at the Wildlife Champion Expo in May at the Zoo. Projects included: introducing fire to prairies, planting native flowers and grass, protecting native pollinators, prairie land management, creating interpretive areas, protecting native mammals and birds, collecting seeds and bee keeping.

Schools were provided funds in order to procure conservation tools and supplies to implement their projects. Communication between teacher partners and Zoo continued through Basecamp, an online interactive collaborative tool. Due to staffing changes, interactive distance learning sessions were not completed in this timeframe. All funds supporting the delivery of interactive distance learning sessions will be returned to ENRTF.

Projects included:

Lester Prairie High School

Students reestablished an 11,000ft² plot of public park into a natural prairie in order to benefit native pollinators, in cooperation with the City of Lester Prairie and Prairie Restoration.

Glencoe Silver Lake High School

Students learned about prairie ecology in their biology classes and grew native pollinator plants, which were planted in the school's Schaefer's Prairie, planted prairie plant identification plots, and planned a future prairie trail near the school.

New London Spicer High School

Students restored an overgrown school rain garden into a sustainable prairie.

BOLD High School

Restored walking path around Wogans Pond. Students research the historical plant communities around the pond, removed trash, reestablished the pathway, and removed invasive species.

Buffalo-Lake-Hector-Steward High School

Students converted a portion of the school's lawn into a pollinator garden.

Hills-Beaver Creek High School

Students researched pollinators and built raised garden beds and bee houses, which were installed on school grounds and on the grounds of a local nursing home.

Canby High School

Students researched and participated in a controlled burn of a prairie near their school.

MACCRAY High School

Students researched native prairie ecology, identified an abandoned site near their school, and established a nature area, cutting an initial path and seeding it with native prairie plants. They also created a five-year plan to add interpretive signage and expand the area.

MATEC High School

Students designed, planted, and established the MATEC Prairie Sensory Garden, with five separate plots, each devoted to a different sense – including sight, taste, touch, smell, and sound.

Benson High School

Students studied pollinators, focusing their research on honeybees and colony collapse disorder. They constructed a bee hive and were trained in beekeeping techniques by a local beekeeper.

Ortonville and Hutchinson High Schools participated in the training and included prairie conservation instruction in their curriculum, but did not have students complete projects during the grant period.

Activity Status as of January 2018:

All school prairie conservation projects complete.

Final Report Summary:

All schools completed their projects with mentoring and assistance as requested from the Minnesota Zoo. However, no interactive distance learning sessions were delivered, as the Zoo discontinued this program capability during the course of the project due to changes in technology beyond its control and unanticipated staffing changes. All funds supporting Activity 2, Outcome 1 were returned to ENRTF. Resources were provided for schools to procure supplies and equipment to assist with their projects. Projects included: introducing fire to prairies, planting native flowers and grass, protecting native pollinators, prairie land management, creating interpretive areas, protecting native mammals and birds, collecting seeds and bee keeping.

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 teacher s 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 3:

ENRTF Budget: \$ 70,900

Amount Spent: \$ 49,866

Balance: \$ 21,034

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:

Students will present their findings at the Wildlife Champion Expo in May 2017. Program evaluation will be conducted upon its completion.

Activity Status as of July 2017:

On May 17, 2017, ten schools presented their prairie conservation projects at the Wildlife Champions Expo. Eighteen teacher partners and 368 high school students attended these educational presentation. The day culminated with a celebration together, including presentations from Zoo experts doing work in the field of prairie wildlife management.

A post-project survey was conducted with 10 of the participating schools. Before beginning this project, seventy-percent of students reported having no or very little knowledge of prairies and the conservation issues facing them. After completion, 86% of respondents reported having high levels of expertise and knowledge in this area. In addition, 76% of respondents reported that they thought that prairies were important and valuable to the Minnesota landscape. Twenty-nine percent of reporting students said that they planned to work with prairies and prairie restoration in the future.

The local recognitions events will be scheduled for the beginning of the 2017-2018 school year. They will include another visit from our animal ambassadors through Zoomobile.

Activity Status as of January 2018:

Due to staffing changes, local recognition events have been rescheduled for spring, 2018. Additional post-evaluation surveys will be conducted to measure the longitudinal impact of the projects on second year students and participating educators.

Final Report Summary:

Final in-school recognition events were completed and students were surveyed again with the same instrument as used during the expo, and also asked about the most rewarding aspects of the project for them. According to these surveys, students' experiences in the Wildlife Champions prairie conservation projects resulted in an 81% increase in knowledge of prairies and the conservation issues facing them.

Sample responses to the most rewarding aspects of the experience included:

“Knowing I am helping the environment”

“Creating something that will be looked over for years to come and I helped create it.”

“Communicating with other people and sharing my opinion about prairie conservation.”

“That I helped the community by helping build a prairie.”

“Learning about pollinators and how they effect us as an individual really helped me better understand that we need things such as dandelions and prairie grasses to help us live and survive. Honeybees provide 1/3 of our foods. So we have to do our part and help them so in return they can help us.”

“Being able to give a place for wildlife to come and grow. Giving back to the community is very rewarding.”

“Having nature so close to the school. Cleaning the pond so people can enjoy it. Learned to respect nature.”

“Learned a lot about my town and the prairies surrounding us.”

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:

Project in progress. The Wildlife Champions Expo has been scheduled for May 17, 2017.

Status as of July 2017:

On May 17, 2017, ten schools presented their prairie conservation projects at the Wildlife Champions Expo. Eighteen teacher partners and 368 high school students attended these educational presentation. The day culminated with a celebration together, including presentations from Zoo experts doing work in the field of prairie wildlife management.

Press releases will be provided to local communities regarding students projects in conjunction with the final community celebrations scheduled for fall, 2017.

Status as of January 2018:

Final community celebrations have been rescheduled for spring, 2018.

Final Report Summary:

The Zoomobile visited participating schools with live animal ambassadors to celebrate their completed projects. Most schools chose to establish and/or restore prairies near or on their school grounds and are continuing to manage their projects.

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:	\$ 10,000	10 contracts with individual partner school teachers (1 teacher contract per partner school) to supervise student conservation projects throughout design and implementation (\$10,000)

Equipment/Tools/Supplies:	\$ 2,847	Student conservation service project supplies (\$2,419); supplies for teacher training and <i>Wildlife Champions</i> Expo at Minnesota Zoo (\$428)
Printing:	\$ 0	
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:	\$ 32,566	Partner school student workshops – 2 workshops/school x 12 schools @ \$1,000 each (\$24,000); Transportation for participating students and teachers to attend <i>Wildlife Champions</i> Expo at Minnesota Zoo (\$5,066); <i>Wildlife Champions</i> Expo student conservation project exhibition and recognition event at Minnesota Zoo (\$3,500)
TOTAL ENRTF BUDGET: \$ 105,313		

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: 0.44 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	\$0	Partner school recruitment and communication
Wildlife conservation professionals @ \$1,000ea x 12 projects (In-kind Support)	\$12,000	\$0	Serve as mentors to students and advisors for student conservation service projects.
State			
	\$	\$0	
TOTAL OTHER FUNDS:		\$14,000	\$0

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 17, 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: June 30, 2018



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	\$20,300	\$0	\$17,500	\$17,500	\$0	\$17,500	\$17,500	\$0	\$55,300	\$0
Project Manager: \$22,500 (70% salary, 30% benefits): 15% FTE for 1.5 years		\$7,500			\$7,500			\$7,500			
Project Coordinator: \$30,000 (70% salary, 30% benefits): 25% FTE for 1.5 years		\$10,000			\$10,000			\$10,000			
Teacher/Student Materials Developer: \$1,800 (70% salary, 30% benefits): 10% FTE for the first three months of the project		\$1,800									
Graphic Designer: \$1,000 (70% salary, 30% benefits): 10% FTE for first three months of the project		\$1,000									
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	\$10,000	\$2,000	\$12,000	\$2,000
Equipment/Tools/Supplies											
Teacher training supplies: field conservation tools	\$500	\$428	\$72							\$500	\$72
<i>Wildlife Champions</i> 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	\$2,419	\$3,581				\$6,000	\$3,581
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	\$2,800	\$0				\$1,800	\$1,800	\$0	\$4,600	\$0
Other											
Partner school student workshops - 2/school x 12 schools @ \$1000 ea	\$12,000	\$12,000	\$0				\$12,000	\$12,000	\$0	\$24,000	\$0
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 <i>Wildlife Champions</i> Expo at Minnesota Zoo - \$800/school x 12 schools							\$9,600	\$5,066	\$4,534	\$9,600	\$4,534
<i>Wildlife Champions</i> Expo student conservation project and recognition event at Minnesota Zoo - \$10/student x 750 students.							\$7,500	\$3,500	\$4,000	\$7,500	\$4,000
COLUMN TOTAL	\$47,600	\$35,528	\$12,072	\$28,500	\$19,919	\$8,581	\$70,900	\$49,866	\$21,034	\$147,000	\$41,687

Creating Southwest Minnesota High School Student Wildlife Champions

PROGRAM OVERVIEW

Wildlife Champions are high school students who, with help from the Minnesota Zoo, learned to identify prairie conservation issues in their local communities and worked together to make a difference for prairie wildlife.

Teacher training

Eighteen high school teachers from twelve schools received training to initiate and oversee student projects

In-school student workshops

MN naturalists visited partner schools with live prairie animal ambassadors to kick off their projects

Student-led prairie habitat restoration and wildlife biology projects

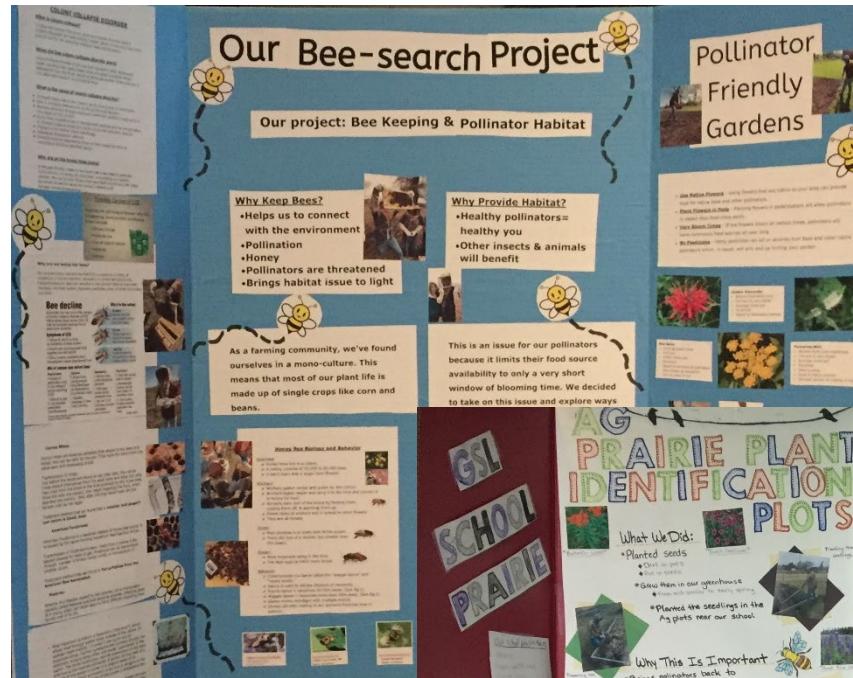
Students designed and completed local hands-on prairie conservation projects in their communities

Student project exhibition and recognition event at MN Zoo

Nearly 400 students and partner teachers showcased their conservation projects in an exhibition at the MN Zoo

Program evaluation and assessment of impact on conservation understanding

Student knowledge of prairies and prairie conservation increased by 81%



Tallgrass prairie once dominated the landscape in southwestern Minnesota 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.

