

2014 Project Abstract
For the period ending June 30, 2016

PROJECT TITLE: Wolf Management Education
Project Manager: Sharon Reed
Organization: International Wolf Center (IWC)
MAILING ADDRESS: 7100 Northland Circle N., Suite 205
CITY/STATE/ZIP: Minneapolis, MN 55428
PHONE: 763-560-7374
EMAIL: sreed@wolf.org
WEBSITE: www.wolf.org
FUNDING SOURCE: Environment and Natural Resources Trust Fund
LEGAL CITATION: M.L. 2014, Chp. 226, Sec. 2, Subd.09i

APPROPRIATION AMOUNT: \$120,000

Overall Project Outcome and Results

This project was undertaken to provide engaging, unbiased 60-minute program about wolves to public school K-12 classrooms and nature centers in the 9 county twin cities metro area. An IWC outreach specialist presented these programs to help students understand the complicated issues surrounding wolves and wolf management.

A total of 546 school classroom programs were presented between Oct. 22, 2014 and June 30, 2016. Five nature center programs were presented as well, for a grand total of 551 programs, which *surpassed* the project goal of 460 programs, while coming in \$18,535 *under* budget. These programs reached approximately 13,906 students as well as approximately 600 teachers. Programs were presented to 546 individual school classrooms at 77 schools in 27 districts and 8 counties. Programs covered basic wolf biology, predator/prey dynamics, role of wolves in healthy ecosystems, myths and opinions of wolves, wolf management, and importance of wildland habitat. The PowerPoint based programs included engaging video clips and photos. Students were also able to learn from handling artifacts such as wolf, deer and moose bones and pelts.

Students were surveyed pre and post program using clicker survey technology to collect data on knowledge of and attitudes toward knowledge of wolves and wolf issues. Survey data showed a range in increases from 9% to 48% from preprogram to post-program in knowledge of wolf facts and attitude and understanding of issues between wolves and humans. When the increase from pre-program to post-program was not as high, we found students had scored quite high on the pre-program question. 99% of the teachers who participated in a post-program survey would recommend the program to other teachers.

This information will be available on the International Wolf Center Website at www.wolf.org, and will also be presented in the Winter 2017 issue of International Wolf Magazine.



Environment and Natural Resources Trust Fund (ENRTF) M.L. 2014 Work Plan

Date of Report: August 15, 2016
Date of Next Status Update Report: FINAL
Date of Work Plan Approval: June 4, 2014
Project Completion Date: June 30, 2016
Does this submission include an amendment request? No

PROJECT TITLE: Wolf Management Education

Project Manager: Sharon Reed
Organization: International Wolf Center
Mailing Address: 7100 Northland Circle N, #205
City/State/Zip Code: Minneapolis, MN 55428
Telephone Number: (763) 560-7374, ext. 223
Email Address: sreed@wolf.org
Web Address: www.wolf.org

Location: Twin Cities metro: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Sherburne, Washington, Wright counties

Total ENRTF Project Budget:	ENRTF Appropriation:	\$120,000
	Amount Spent:	\$101,465
	Balance:	\$18,535

Legal Citation: M.L. 2014, Chp. 226, Sec. 2, Subd. 09i

Appropriation Language:

\$120,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the International Wolf Center for outreach to metro area kindergarten through grade 12 classrooms and nature centers to help children understand wolf management issues.

I. PROJECT TITLE: Wolf Management Education

II. PROJECT STATEMENT:

The purpose of this project is to bring a Twin Cities-based International Wolf Center outreach specialist into K-12 classrooms and nature centers in the nine-county Twin Cities metro area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Sherburne, Washington, and Wright counties) to help children understand the complicated issues surrounding the return of wolves to state management.

This project will provide engaging, unbiased, in-depth programs about wolves and the loss of wilderness habitat for children in Minnesota, the next generation of stewards of our wildlife and environment. Wolf Management Education programs will be provided in 90-minute and three-hour formats. Programs lasting 90 minutes will educate students about the social and political challenges wolves face in today's society, as well as basic information regarding wolf biology, wolf behavior, wolf habitat, physical and social adaptations, predatory/prey relationships, pack dynamics, and loss of habitat in Minnesota. Programs lasting three hours will include these topics and provide an expanded opportunity for students to role-play in a game in which they practice critical thinking to make wolf-management decisions.

This project will be valuable because the hunting of wolves is a hot topic in Minnesota. Public opinion is sharply divided following the recent removal of wolves from the endangered species list and the return of wolves to state management for the first time in almost 40 years. The transition from being a federally protected species to one that is hunted and trapped has caused heated and polarized public debate. Chasms divide people on all sides of the issue around wolf management—rural, urban and suburban communities; hunters and non-hunters, trappers and non-trappers, residents and non-residents of areas with wolf populations; and more.

Why are wolves important in a balanced ecosystem? How will the loss of wilderness areas in Minnesota affect wolves and other animal populations? What role can children play in protecting the environment for future generations? These topics and more will be core to the most aggressive effort we've ever made to educate our next generation of citizens about the challenges wildlife face in our quickly changing world. Educating the public—especially young people, the next generation of stewards of our natural resources—about these apex predators is more critical now than ever.

Using the current conflicts around wolves as a catalyst to discuss larger issues about wilderness and the environment, the goals of this project are to: 1) Teach children about wolves and their important role in the ecosystem and in Minnesota, in particular; 2) Foster an ethic of stewardship of wilderness in young people; 3) Empower children to develop critical thinking skills and explore perspectives of various stakeholders; 4) Expand the conversation with our next generation of citizens around larger biological and environmental topics; and 5) Engage children in discussions about the issues faced by human populations in wolf areas and current controversial issues around wolf management.

Participants will be surveyed pre- and post-program using Turning Point survey technology that will collect data on participant attitudes on and knowledge of wolves and wolf management. These real-time surveys will provide context for a facilitated discussion about these important issues affecting Minnesota wilderness, and public opinions that affect the survival of wolves and their habitats. The results of these surveys will be shared with participants, in *International Wolf* magazine, and will be available on the Center's web site.

III. PROJECT STATUS UPDATES:

Amendment Request Approved (1/23/2015):

We request an amendment to change the project manager from Darcy Berus, Development Director to Sharon Reed, Director of Administration and Finance – effective immediately. Darcy Berus left the organization for other opportunities on January 16, 2015.

Amendment Approved (12/17/2014):

Our request was approved for an amendment to move \$1,805 in funds from the “handouts” line item to the “Turning Point survey clickers” line item. This revision will adjust for the actual costs of the Turning Point evaluation clickers used with the participating students to \$2,705. The projected estimate of \$900 budgeted was significantly below actual cost.

Fortunately, the cost of the classroom handouts is coming in under budget. We have \$11,503 budgeted for handouts and our actual costs to date are \$4,893 (including design costs) for 17,300 handouts. We kept our costs down so they came in about \$0.28 each (including design) and we had budgeted \$0.75 each. We will keep the remainder in this line item to produce future materials.

We realized the costs were significantly underestimated for the Turning Point clickers when we got the quote from the supplier in September. The projected budgeted amount was taken from outdated pricing information provided by a former Center staff member. While the quote for the actual cost was higher than the projected budget, we had to proceed with the purchase in order to secure these clickers in time for the project educator to start delivering programs in classrooms.

Our request was approved on 12/17/14 to move \$1,805 in funds from the line item for handouts to the line item for Turning Point survey units would shift funds from “Activity 1: Equipment/Tools/Supplies: Handouts” to “Activity 2: Equipment/Tools/Supplies: Turning Point Survey unit & clickers.”

Project Status as of January 30, 2015:

The International Wolf Center hired a new outreach specialist to deliver Wolves at Our Door programs in public school classrooms throughout the Twin Cities area identified in the Work Plan. Work quickly began to develop and create curriculum and classroom materials for participating schoolchildren and teachers, along with a marketing plan to promote availability of these free programs to schools and a process for scheduling and follow-up with teachers. As of January 1, 2015, 84 Wolves at Our Door programs have been conducted, reaching a total of approximately 2,000 students. Another 90 programs are currently scheduled for January-April 2015.

Project Status as of August 1, 2015:

Due to a change in the legal status of Minnesota wolves on 12/19/14, the International Wolf Center needed to purchase ink stamps to update the classroom handouts. To keep information current, in case the situation should change again, we direct them to the International Wolf Center Web site or to Tara Morrison, Outreach Director. The wording on the stamps is as follows: 1) on the back page of each of the two handouts: *A judge ordered wolves protected again in MN, WI & MI under the Endangered Species Act. No one may kill a wolf except in defense of humans. In MN, farmers can contact federal agents for wolf control. For more info and updates see our website: <http://www.wolf.org/wow/united-states/Minnesota/>* 2) on pages where there is reference to wolf management, this stamp appears: *“12-19-14: Please see back cover for imppt updates to this info* and 3) On the front page: *“If you have questions, email Tara at: outreach.wolf.org”*. Volunteers were utilized to stamp and update the handouts.

The Outreach Director attended training in Michigan at the Midwest Wolf Stewards conference. The Midwest Wolf Stewards Conference has been held annually since the late 1980s to share the latest information on wolf conservation in the Great Lakes region. Conference participants include professionals from state and federal

agencies and the province of Ontario, NGO's, universities, Tribes, and anyone interested in the management of wolves in the Great Lakes region. The topics covered include:

- Updates on wolf population status in MN, MI, Ontario, and WI
- Current issues regarding wolf management
- Wolf research and monitoring

This conference is open to the public and benefited those involved in wolf research, education, or management. It is an outstanding opportunity to learn from the most knowledgeable people in the fields of wildlife science, human dimensions of natural resources, legislation, public policy, education, and more.

As of July 1, 2015, 307 Wolves at Our Door programs have been presented, reaching a total of approximately 7,498 students. Approximately 70 programs are already scheduled for the 2015-16 school year.

Project Status as of February 1, 2016:

As of January 1, 2016, a total of 390 Wolves at Our Door programs have been presented, reaching a total of approximately 9,498 students. Another 108 programs are currently scheduled for January – May 2016. This would bring the total # of programs presented by June 2016 to 498. Requests for programs to be done between January 1 2016 and June 2016 are still being received, so the final number will almost certainly be higher.

Project Status as of June 30, 2016

The final total of Wolves at Our Door programs presented to classrooms was 546 for an approximate total of 13,822 students, as well as approximately 600 teachers. Five nature center programs were also presented, for an approximate total of 84 students.

Overall Project Outcomes and Results:

This project was undertaken to provide engaging, unbiased 60-minute programs about wolves to public school K-12 classrooms and nature centers in the 9 county twin cities metro area. An IWC outreach specialist presented these programs to help students understand the complicated issues surrounding wolves and wolf management.

A total of 546 school classroom programs were presented between Oct. 22, 2014 and June 30, 2016. Five nature center programs were presented as well, for a grand total of 551 programs, which *surpassed* the project goal of 460 programs, while coming in \$18,535 *under* budget. These programs reached approximately 13,906 students as well as approximately 600 teachers. Programs were presented to 546 individual school classrooms at 77 schools in 27 districts and 8 counties. Programs covered basic wolf biology, predator/prey dynamics, role of wolves in healthy ecosystems, myths and opinions of wolves, wolf management, and importance of wildland habitat. The PowerPoint based programs included engaging video clips and photos. Students were also able to learn from handling artifacts such as wolf, deer and moose bones and pelts.

Students were surveyed pre and post program using clicker survey technology to collect data on knowledge of and attitudes toward knowledge of wolves and wolf issues. Survey data showed a range in increases from 9% to 48% from preprogram to post-program in knowledge of wolf facts and attitude and understanding of issues between wolves and humans. When the increase from pre-program to post-program was not as high, we found students had scored quite high on the pre-program question. 99% of the teachers who participated in a post-program survey would recommend the program to other teachers.

This information will be available on the International Wolf Center Website at www.wolf.org, and will also be presented in the Winter 2017 issue of International Wolf Magazine.

IV. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1: On site classroom presentations in Twin Cities schools

Description: An outreach specialist will deliver on site programs that address the goals of this project to a targeted number of 460 classrooms in the Twin Cities metro area. Programs will serve urban and suburban, underserved and minority students – many of whom have little or no access to or experience with Minnesota’s vast natural resources, wildlife or wilderness – to teach them about the social and political conflicts around the Minnesota wolf hunting controversies and the loss of wildlife habitats throughout the State of Minnesota.

Wolf Management Education programs will be provided in 90-minute and three-hour formats. Programs lasting 90 minutes will educate students about the social and political challenges wolves face in today’s society, as well as basic information regarding wolf biology, wolf behavior, wolf habitat, physical and social adaptations, predatory/prey relationships, pack dynamics, and loss of habitat in Minnesota. Programs lasting three hours will include these topics and provide an expanded opportunity for students to role-play in a game in which they practice critical thinking to make wolf-management decisions.

More specifically, the goals of this project are to: 1) Teach children about wolves and their important role in the ecosystem and in Minnesota, in particular; 2) Foster an ethic of stewardship of wilderness in young people; 3) Empower children to develop critical thinking skills and explore perspectives of various stakeholders; 4) Expand the conversation with our next generation of citizens around larger biological and environmental topics; and 5) Engage children in discussions about the issues faced by human populations in wolf areas and current controversial issues around wolf management.

Summary Budget Information for Activity 1:

ENRTF Budget: \$117,295
Amount Spent: \$ 98,760
Balance: \$ 18,535

Activity Completion Date: June 30, 2016

Outcome	Completion Date	Budget
1. Recruit, identify and hire a Twin Cities-based outreach specialist to deliver comprehensive Wolf Management Education programs in Twin Cities schools. With a strong background in environmental education, the outreach specialist will be responsible for educating children in the Twin Cities metro area schools about wolves and the environment through a comprehensive curriculum that encompasses hands-on learning to address the goals of the project as outlined above. Funds from ENTRF will cover the personnel expenses for the outreach specialist.	August 2014	\$ 90,930
2. Conduct programs in 460 classrooms throughout the Twin Cities metro area (estimated 16,100 students). Participating students will have an increased awareness and understanding of wolves, wolf biology, wolf behavior, pack dynamics, predator/prey relationships, habitat, the loss of habitat in Minnesota, and the important role this keystone predator plays in the ecosystem.	June 2016	\$ 26,365

Activity Status as of January 30, 2015:

After approval of the International Wolf Center’s Wolves at Our Door funding from ENTRF/LCCMR, the Center began to recruit for the position of outreach specialist to deliver these programs to public school children in Twin Cities-area classrooms.

In July 2014, the International Wolf Center hired Tara Morrison to fill the position of Outreach Director to serve as the outreach specialist for the Center’s Wolves at Our Door programs supported with funds from ENTRF/LCCMR. Ms. Morrison’s first day of employment with the Center was August 4, 2014.

Ms. Morrison came to the Center with significant experience in teaching wolf education programs at the Wildlife Science Center and success in managing volunteer programs. Over the past decade, her hands-on involvement in working with wolves, bears, mountain lions, birds of prey and other wildlife at WSC has given her real-life experiences that enable her to be a highly-successful environmental educator.

Ms. Morrison has actively participated in Midwest Wolf Stewards Conferences, and was one of the first people to come in contact with IWC Ambassador Wolves Aidan and Denali after they were born at the Wildlife Science Center in 2008. She has studied the writings of leading wolf biologists on the Center’s board of directors, and she frequently travels to Yellowstone and other national parks to observe wolves and other wildlife. Hitting the ground running on day 1 at the Center, Ms. Morrison is doing an outstanding job of teaching children about wolves and the complex issues and public opinions that surround them.

Program delivery began October 22 following the recruitment, hiring and training of the Outreach Director as well as an intensive curriculum development process involving International Wolf Center leadership, nationally-renowned wolf biologists and experienced educators on the Center’s Education Committee engaged for this project.

The Wolves at Our Door program curriculum has been adapted to fit different ages to ensure that material is age-appropriate for K-12. The program curriculum also has been adapted to fit the timeframes that teachers have available for their classes, since most schools simply do not have 90 or 180 minutes to devote to programs.

The Education Committee developed a curriculum that presents a comprehensive blend of basic wolf biology and behavior along with basics of wolf management and habit issues.

As of January 1, 2015, Ms. Morrison has conducted 84 Wolves at Our Door programs have been conducted, reaching a total of approximately 2,000 students. Another 90 programs are currently scheduled for January-April 2015.

Activity Status as of August 1, 2015:

On December 19, 2014 a federal judge ordered that wolves be returned to protected status in Minnesota, Wisconsin and Michigan. As a result, some changes were made to Wolves at Our Door program content including PowerPoint slides and associated statements made by the IWC educator.

As of June 30 2015, 307 Wolves at Our Door programs have been presented, reaching a total of approximately 7,498 students. We continue to adapt the program based on teacher and student feedback.

Activity Status as of February 1, 2016:

As of January 1 2016, 390 Wolves at Our Door programs have been presented, reaching a total of approximately 9498 students. We continue to adapt the program based on teacher and student feedback. We are also in the process of forming a Wolves at Our Door "Teacher Advisory Committee" where teacher volunteers will critique the program and make suggestions for improvements to content, how to make the program more interactive and increase student attention and retention for the material being presented.

Final Report Summary:

This project was undertaken to provide engaging, unbiased 60-minute program about wolves to public school K-12 classrooms and nature centers in the 9 county twin cities metro area. An IWC outreach specialist presented these programs to help students understand the complicated issues surrounding wolves and wolf management.

A total of 546 school classroom programs were presented between Oct. 22, 2014 and June 30, 2016. Five nature center programs were presented as well, for a grand total of 551 programs, which surpassed the project goal of 460 programs, while coming in \$18,535 under budget. These programs reached approximately 13,906 students as well as approximately 600 teachers. Programs were presented to 546 individual school classrooms at 77 schools in 27 districts and 8 counties. (Only 1 county in the 9 county metro areas did not have programs presented in its schools, but they did receive marketing mailings). Many schools had multiple programs in different grades, and many schools were visited both years of the program, but presented to different students each year. Programs covered basic wolf biology, predator/prey dynamics, role of wolves in healthy ecosystems, myths and opinions of wolves, wolf management, and importance of wildland habitat. The PowerPoint based programs included engaging video clips and photos. Students were also able to learn from handling artifacts such as wolf, deer and moose bones and pelts.

Students were surveyed pre and post program using clicker survey technology to collect data on knowledge of and attitudes toward knowledge of wolves and wolf issues. Survey data showed a range in increases from 9% to 48% from preprogram to post-program in knowledge of wolf facts and attitude and understanding of issues between wolves and humans. When the increase from pre-program to post-program was not as high, we found students had scored quite high on the pre-program question. 99% of the teachers who participated in a post-program survey would recommend the program to other teachers.

ACTIVITY 2: Collect data on student attitudes regarding controversial wolf hunting issues and loss of Minnesota wildlife habitat and disseminate post-program survey results of participating students.

Description: Participating students will be surveyed pre- and post-program on their knowledge, perceptions, impressions, and understanding of the topics covered in the Wolf Management Education programs. Data on student attitudes will be measured using a Turning Point survey tool, a response technology that allows the Wolf Management Education outreach specialist to quantify and assess students' knowledge, understanding and opinions before, during and after program delivery. This survey tool also actively engages students through technology, encouraging classroom participation. Data from students' feedback is immediately gathered for real-time use in the classroom to gauge understanding during program delivery and for later use in program evaluation.

A comprehensive summary will be prepared of student attitudes regarding controversial wolf hunting issues and loss of Minnesota wildlife habitat and disseminate this information in *International Wolf* magazine (distributed nationally and internationally), on the IWC web site www.wolf.org, the Minnesota Department of Natural Resources, the 2017 Midwest Wolf Stewards Conference, the 2017-18 International Wolf Symposium, and Minnesota news media. This summary will help measure the success of the program in increasing awareness and understanding of wolves, wolf hunting issues and loss of Minnesota wildlife habitat and in reaching the project goals (stated above).

Summary Budget Information for Activity 2:

ENRTF Budget: \$ 2705
Amount Spent: \$ 2705
Balance: \$ 0

Activity Completion Date: June 30, 2016

Outcome	Completion Date	Budget
1. For pre- and post-program evaluation, the Turning Point survey tool will be used to gather data on students' attitudes and knowledge about wolves and wilderness that inform their opinions and understanding about wolf hunting issues and loss of Minnesota wildlife.	June 2016	\$ 2705

Activity Status as of January 30, 2015:

The response from teachers and students to the Center's Wolves at Our Door programs has been excellent! Of the 25 teachers who have responded to an optional post-program survey sent to all participating teachers, the program has received an average rating of 4.54 out of 5 stars. 100% of respondents say that they would recommend the program to other teachers.

Here are some comments from evaluations from teachers who have recently had Wolves at Our Door programs in their classrooms:

"The information that was shared was very helpful and interesting. The children were fully engaged. They had just completed a non-fiction report on wolves. I watched as they took in the information that Tara shared and related it to what they had been reading about and researching. I believe that my students now have a broader view of how this part of nature can have an effect on their world. I really think that they would have loved to spend the whole day with Tara taking in and sharing discoveries about wolves. Thank you for making the trip to our school. It is greatly appreciated!" Debra, teacher

"[The Wolves at Our Door program] further teach our students about Minnesota. It focuses on the importance of knowing the facts about wolves and not believing everything that you hear. I think it was wonderful that the children are being taught not to be so afraid of wolves or that they aren't as they are depicted on television."

"[The Wolves at Our Door program] informed myself and my students about a topic that we saw and heard a lot about in the news. It provided us with a lot of facts and follow-up activities to explore this topic more."

"I even went home and told my husband that hunters kill more deer than wolves do. He didn't believe me and still believes they are to blame for the decrease in deer population. I then pointed out to him the fact about the horrible winter that we had that actually had more to deal with the decline in deer than wolves eating them. I LOVE that the kids were taught that there was no such thing as werewolves!!!"

"[The Wolves at Our Door program] helps to make it "real" for students who might never actually learn about wolves otherwise. "

The Center has encountered some problems with the Turning Point Survey (TPS) tool questions. The youngest students in grades K-2 had a very hard time with using the "clickers" to answer the questions; they needed repeated explanations about the process, shared answers with each other despite being instructed otherwise. The Outreach Director found that it was taking an inordinate amount of program time to deal with the problems arising in the evaluation gathering.

At the suggestion of a teacher and following correspondence between the Project Manager and LCCMR staff, the Center temporarily discontinued doing the TPS questions for grades K-2 and stopped scheduling programs for those grades (we honored the programs already scheduled but did not do any survey questions). However, after feedback from some disappointed grade K-2 teachers and a meeting of the IWC Board of Directors Education Committee on 12/5/2014, it was decided that the Center needed to continue to do programs for those ages (grades K-2) and that we needed to ask the Survey Questions in a different way. The Center decided to have teachers ask the students the “pre” test questions before the program in order to save time and so the teachers can attempt to ensure the students are answering only once. The Outreach Director then asks the “Post” survey questions in the classroom once on site. This process still takes some time to try to ensure that the students are only answering one time (but we know that some still are answering more than once) and it is impossible to stop the students from sharing answers despite repeated requests not to talk or whisper their answers to each other. Some teachers are better at helping make all this happen than others.

Despite these challenges, understandably inherent with this age group, the Center proceeds with delivering programs to K-2 classrooms because the project included this age group for a reason – because children’s opinions are indeed formed at these early years—opinions that can be closely held the rest of their lives. We recognize the evaluation surveys are statistically helpful at all age levels even if they are not all scientifically accurate.

A major development affecting the Center’s delivery of Wolves at Our Door programs occurred on December 19, 2014, when a Federal court ordered wolves returned to the Endangered Species List in the Great Lakes States, including Minnesota. This development necessitated some changes in the program, specifically the portion covering wolf management in Minnesota, changes in the program handouts for students, and changes to some of the survey questions.

Activity Status as of August 1, 2015:

The response from teachers and students continues to be excellent! Teachers are sent an optional survey after the program has been presented in their classroom. Of the 100 teachers who have responded, the program has an average rating of 4.62 out of 5 stars. 99% of the teachers surveyed would recommend the program to other teachers. 98% of teachers said that the information in the program was appropriate for the grade level of the students.

Teachers have given the following responses when asked how the program benefits their students or the teachers themselves as educators:

“It further teaches our students about Minnesota. It focuses on the importance of knowing the facts about wolves and not believing everything that you hear. I think it was wonderful that the children are being taught not to be so afraid of wolves or that they aren’t as they are depicted on television.”

“This program brings to our students a greater awareness of the difficult decisions we make in helping to keep ecosystems in balance. It aligns with a unit of study in science, and is also connected to a literature unit which looks at the image of the wolf in traditional literature”.

“It helps children from the inner city learn more about wildlife!”

“The content was highly relevant to our study of natural systems and fit in nicely with our field trip to the zoo on March 6 where we specifically studied Minnesota biomes. I also appreciated all the time that was devoted to student questions and that the issue of wolves was looked at through different lenses”.

“Provides up-to-date information relative to Minnesota; provides vocabulary and provides much needed “background knowledge”, particularly beneficial to our ELL population; provides access to artifacts for students who cannot travel (or who would not have traveled to) the Ely Wolf Center; exposes students to a balanced presentation regarding conservation/wildlife, before they hear bias/myth”.

Student data from this time period:

Kindergarten – Grade 2:

There is a 26% increase pre-program to post-program in the number of students who know that wild wolves live in Minnesota.

There is a 42% increase in students who feel that most wolves are not dangerous to humans, from pro-program to post-program.

There is a 27% increase from Pre-program correct answers to post-program correct, when students are asked what wolves eat in Minnesota.

Grades 3 and 4:

There is a 14% increase pre-program to post-program in the number of students who know that wild wolves live in Minnesota.

There is a 31% increase in students who feel that most wolves are not dangerous to humans, from pro-program to post-program.

There is a 22% increase from Pre-program correct answers to post-program correct, when students are asked what wolves eat in Minnesota.

Grades 5-12

There is a 10% increase pre-program to post-program in the number of students who know where wild wolves live with least human conflict.

There is a 24% increase in students who feel that most wolves are not dangerous to humans, from pro-program to post-program.

There is a 22% increase from Pre-program correct answers to post-program correct, when students are asked a True/False question about people’s differing opinions about wolves.

There was a 32% increase from pre-program to post-program correct answers to the question that surveys students about differing ways wolves and people have conflicts.

Activity Status as of February 1, 2016:

The response from teachers and students continues to be excellent! Teachers are sent an optional survey after the program has been presented in their classroom. Of the 18 teachers who responded during this time period (9-1-15 to 1-1-16) the program has an average rating of 4.66 out of 5 stars. 99% of the teachers surveyed would recommend the program to other teachers. 98% of teachers said that the information in the program was appropriate for the grade level of the students.

Teachers have given the following responses when asked how the program benefits their students or the teachers themselves as educators:

Middle School Science Teacher: "We were able to notice parallels to the content standards the students will see throughout the year. We took notes and can now refer back to moments in the presentation as starting points for content discussions with students." Aubree, Middle School Science Teacher, Richfield

"A good introduction to our environments curriculum. A good tie-in to nonfiction reading." Tamala, 5th grade teacher, St. Cloud

"This class is easier than planning a field trip. The students enjoy having this opportunity in class and learn a lot from another person different than the regular teacher. One of the things that worked well is the hands-on activities and the control to answer questions; they love that. I always start the visit by reading the book " los lobos se comieron mis tareas" this is a fun connection with the wolf visit." Myriam, 3rd grade teacher, Richfield

"It gave them a greater understanding of wolves and human interaction. We have focused on owl research so it was good to go outside of that concept. We had good conversation with the students after the program. I feel strongly that students at a young age need to understand their role in the preservation of animals and balance of resources." Sue, 4th grade teacher, Cottage Grove

"An engaging and high interest program that my students could benefit from." Anonymous teacher

"It increases their interest in the natural world and will be fun to reference during our Structures of Life science unit." Wyatt, 3rd grade teacher, Moundsview

"Tara covered many of the concepts taught in my 7th grade science class. We studied populations and ecosystems. Between our MYP unit on the MN Food Web and our state/district standards, this is a perfect experience." Barb, Middle School Science Teacher, Minneapolis

"Who doesn't have a curiosity about or fascination with wolves? It was great to great to hear the latest facts and also the history of wolves. The presentations we had done (2) were to two diverse audiences - a seniors group and also a troop of scouts both presented at a nature center - wildlife programs are always a draw. Tara, our presenter was excellent. She was very professional, knowledgeable, and experienced. The program was interactive, hands- on and visual - a good mix that was fitting for all ages." Naturalist/Program Director, Nature Center

Student data from this time period:**Kindergarten – Grade 2:**

There was a 5% increase pre-program to post-program in the number of students who know that wild wolves live in Minnesota.

There was a 25% increase in kindergarten students who feel that most wolves are not dangerous to humans, from pre-program to post-program.

There was a 16% increase from pre-program to post-program correct answers, when students are asked what wolves eat in Minnesota.

Grades 3 and 4:

There was a 4% increase pre-program to post-program in the number of students who know that wild wolves live in Minnesota.

There was a 29% increase in students who feel that most wolves are not dangerous to humans, from pre-program to post-program.

There was a 19% increase from pre-program to post-program correct answers, when students are asked what wolves eat in Minnesota.

Grades 5-12

There was a 3% increase pre-program to post-program in the number of students who know where wild wolves live with least human conflict.

There was a 29% increase in students who feel that most wolves are not dangerous to humans, from pre-program to post-program.

There was a 32% increase from pre-program to post-program correct answers, when students are asked a True/False question about people's differing opinions about wolves.

There was a 30% increase from pre-program to post-program correct answers to the question that surveys students about differing ways wolves and people have conflicts.

Final Report Summary:

The feedback from teachers and students continued to be very enthusiastic, with many requests to come back next year. Some of the comments from teacher notes and emails during this last part of the grant period included the following:

"The program is valuable to our population of children, who are on free/reduced lunch, who have limited opportunities to travel anywhere. Additionally, it is enormously valuable to our English language learners in terms of increasing their exposure to science/scientific language". 2nd grade teacher

"Dear International Wolf Center and Tara, Wow! What an amazing presentation you gave to our Rogers Elementary 5th graders. They learned so many wonderful facts about the wolf and many gained a new respect for this majestic animal. Thank you for your mission to educate and inspire others. You make a difference!" 5th grade teacher, Rogers Elementary

"This program fits extremely well with the MN state standards in Science. Students get non-biased information about wolves in our state and the history of human/wolf interactions. The true facts are given and hunters/wolf lovers feel equally appreciated. I feel that the facts are presented clearly and no judgment is placed on students who appreciate wolves or choose to hunt them. The views of ranchers

who lose livestock are also addressed. This is a great presentation for students who are new to our country and those who think they know everything about wolves already.” Middle school science teacher

“I’ve seen it 10 times and every time I learn something new. I think it is well planned and flexible for each new class. It is rare that I can’t find something to improve in any presentation, but honestly I can’t think of anything”. Middle school science teacher

“Tara does an excellent job of packing in engaging information that the students enjoy, all within 1 class period. She has a powerful way of keeping it free of bias so students can challenge expectations or shape new feelings about wolves. Thank you for making this available to our students. We appreciate your generosity of time, talent and materials to enrich their learning experience!” Middle school science teacher

“Tara has always done a wonderful job with this presentation. Answering students’ questions honestly and accurately”. 3rd grade teacher

Of the total of 148 teachers who completed the online, optional survey:

108 of the 148 gave the program 5 out of 5 stars

33 of the 148 gave it 4 out of 5 stars.

* (Some teachers had the program multiple years but only completed the survey 1 time)

99% of the teachers surveyed would recommend this program for other teachers. Those who did not recommend it stated that they wanted the program to include more interaction and hands on activities. We have been making improvements in this area and will continue to work on this for phase 2.

Comprehensive Survey Results:

Grades K-2

-There was a 27.5 % increase pre-program to post-program in the number of students who knew if we have wild wolves in Minnesota.

-There was a 48.5% increase pre-program to post-program whether or not *most* wild wolves are dangerous to people.

-There was a 28% increase in percentage answering correctly a question about what wild wolves mostly eat in Minnesota preprogram to post-program.

Grades 3-4

-When asked if there are wild wolves living in Minnesota, there was a 13.5 % increase in percentage answering correctly between preprogram and post-program. We think this is simply because so many students already KNOW there are wolves in Minnesota so the pre-test numbers were high.

-There was a 31.5% increase between preprogram and post-program in the number of students answering “Are *most* wolves dangerous to people?” correctly.

-There was a 24% increase in percentage answering correctly a question about what wild wolves mostly eat in Minnesota preprogram to post-program.

Grades 5-12

-When asked where wolves live with the least conflict/trouble with people, given a choice of cities/wild lands/farm areas/I don't know, there was a 9% preprogram to post-program. We will be altering this question for this age group for Phase 2 of the project.

-There was a 24% increase between preprogram and post-program in the number of students answering, "Are *most* wolves dangerous to people?" correctly.

-When asked if the following statement is true or false, the increase in the number of students answering correctly between pre and post-program was 34.5%. The statement was: "Some people think there are *too many* wolves in Minnesota. Other people wish we had *more* wolves in Minnesota?"

-When asked, "Wolves sometimes make people mad by:"

- a. Killing deer
- b. Killing livestock (farm animals)
- c. Killing moose
- d. All of the above
- e. None of the above
- f. I don't know

There was a 30.5% increase in percentage answering correctly between pre-program and post-program.

V. DISSEMINATION:

Description: The International Wolf Center will share the results of the participant surveys in *International Wolf* magazine, with the Minnesota Department of Natural Resources, the 2017-18 International Wolf Symposium, Minnesota news media, and on the Center's web site (www.wolf.org). Project evaluation data may also be presented at the Midwest Wolf Stewards Conference if the Center's budget allows for staff to attend.

Status as of January 30, 2015:

The outlets and initiatives in which the dissemination of results of this project will be shared have yet to occur. To date, the Center's Wolves at Our Door program has been featured prominently on the IWC website home page, has a dedicated page on the IWC website, and was featured in an IWC Facebook post on December 28, 2014.

Status as of August 1, 2015:

The "Wolves at Our Door" program has been featured prominently on the IWC website home page, has a dedicated page on the IWC website, and was featured in an IWC Facebook post on January 16, 2015. A Media Alert was sent on May 1, 2015, publicizing the 250th Wolves at Our Door Program. The program was also featured in the Mahtomedi (ISD 832) School District's Newsletter, "The Globe", in the Spring 2015 issue. The media release and the newsletter were sent electronically with this submission. A copy of the K-4 and the Middle School handouts has been sent in the mail to the LCCMR committee.

Status as of February 1, 2016:

The “Wolves at Our Door” program continues to have a dedicated International Wolf Center website home page, was featured in a Facebook post in December, 2015 and Wolves At Our Door programs held at nature centers were featured on local media websites, such as KARE-11.

Final Report Summary: The International Wolf Center will be publishing the results of the participant surveys in the Spring 2017 issue of International Wolf magazine, which will also be available on our website, wolf.org in February 2017.

A summary of the program itself as well as the results of the surveys will also be presented at the 2018 International Wolf Symposium, which will be held in Brooklyn Park, MN from October 12-14 2018. The International Wolf Center will be submitting a proposal to present the same information at the 2017 Midwest Wolf Stewards Meeting in Michigan.

The Wolves at Our Door program has already been featured in the Winter 2015 issue of International Wolf magazine (see attached article). It has also been featured in the Zimmerman Today newspaper in May 2016, on the IWC website, on the IWC Facebook page, on several school district Facebook pages, and in the Mahtomedi School District newsletter.

VI. PROJECT BUDGET SUMMARY: JUNE 2014-JUNE 2016

A. ENRTF Budget Overview:

Budget Category	\$ Amount	Explanation
Personnel:	\$ 90,930	Outreach Educator (1 FTE) salary and benefits = \$45,465/year x 2 years
Equipment/Tools/Supplies:	\$ 12,403	Turning Point survey unit + clickers \$2705; Handouts \$9698 (partial of total estimated \$12,075 for total 460 schools x 35 students/class x \$0.75 each) (one-time costs)
Travel Expenses in MN:	\$ 16,667	Travel Expenses \$16,667: Mileage for outreach educator (460 schools x avg. 55 miles x \$0.565/mi. = \$14,294) + 8 trips for outreach educator to and from Twin Cities-Ely @ 525 miles x \$0.565/mi. = \$2,373
TOTAL ENRTF BUDGET:	\$ 120,000	

Explanation of Use of Classified Staff: N/A

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

Number of Full-time Equivalent (FTE) Directly Funded with this ENRTF Appropriation: 2 = 1 FTE x 2 years

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

B. Other Funds:

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
Non-state			
Unrestricted support from donors TBD	\$ 3,672	\$0	\$3,672 in Handouts (balance not covered by ENTRF funds)
TOTAL OTHER FUNDS:	\$ 3,672	\$0	

VII. PROJECT STRATEGY:

A. Project Partners: The Wolf Management Education project will serve children in schools and nature centers within the Twin Cities metro area seven counties. This is intended to include schools within the following school districts: Anoka County (Anoka-Hennepin ISD #11); Carver County (Howard Lake-Waverly-Winsted ISD #2687, Waconia ISD #110, Belle Plaine ISD #716, Chaska ISD #112, Glencoe-Silver Lake ISD #2859, Minnetonka ISD #276, Norwood-Young America ISD #108, Watertown-Mayer ISD #111); Dakota County (Burnsville-Eagan-Savage ISD #191, Cannon Falls ISD #252, Farmington ISD #192, Hastings ISD #200, Inver Grove Heights ISD #199, Lakeville ISD #194, Northfield ISD #659, Randolph ISD #195, Rosemount-Apple Valley-Eagan ISD #196, South Saint Paul Special District 6, West St. Paul-Mendota Heights-Eagan ISD #197); Hennepin County (Minneapolis Special ISD #1, Anoka-Hennepin ISD #11, Waconia ISD #110, Watertown-Mayer ISD #111, Hopkins ISD #270, Bloomington ISD #271, Eden Prairie ISD #272, Edina ISD #276, Minnetonka ISD #276, Westonka ISD #277, Orono ISD #278, Osseo ISD #279, Richfield ISD #280, Robbinsdale ISD #281, St. Anthony ISD #282, St. Louis Park ISD #283, Wayzata ISD #284, Brooklyn Center ISD #286, Elk River ISD #728, Buffalo ISD #877, Delano ISD #879, Rockford ISD #883); Ramsey County (Roseville ISD #623, St. Paul ISD #625, Mounds View ISD #621, North St. Paul-Maplewood ISD #622, St. Anthony-New Brighton ISD #282, White Bear Lake ISD #624); Scott County (Belle Plaine, Burnsville, Jordan, Lakeville, LeSueur-Henderson, Minnesota River Valley Special Ed Coop., New Prague, Prior Lake-Savage, Shakopee); Sherburne County (Becker ISD #726, Elk River ISD #728, Princeton ISD #477); Washington County (Chisago Lakes ISD #2144, East Metro Integration ISD #6067, Forest Lake Area ISD #831, Hastings ISD #200, Mahtomedia ISD #832, North St. Paul-Maplewood-Oakdale ISD #622, Northeast Metro ISD #916, South Washington ISD #833, Stillwater ISD #834, White Bear Lake Area ISD #624, Valley Crossing Community School ISD #916); Wright County (Albertville-St. Michael ISD #885, Annandale-Silver Creek-South Haven ISD #876, Buffalo-Hanover-Montrose ISD #877, Cokato-Dassel ISD #466, Delano ISD #879, Glencoe Silver Lake ISD #2859, Howard Lake-Waverly-Winsted ISD #2687, Kaleidoscope Charter School ISD #4118, Maple Lake ISD #881, Monticello ISD #882, Otsego-Elk River ISD #728, Rockford ISD #883, St. Cloud ISD #742, Watertown Mayer ISD #111, Wright Technical Center).

B. Project Impact and Long-term Strategy:

This Wolf Management Education project will have a deep and long-lasting impact on Minnesota’s wildlife and wilderness by empowering young citizens through an unbiased understanding of important issues facing our natural resources – thus educating, informing and empowering the next generation of environmental stewards. The goals of this critical project are at the heart of the International Wolf Center’s mission – to advance the survival of wolf populations by teaching about wolves, their relationship to wildlands and the human role in their future. While the Center will sunset this project as outlined in this workplan upon completion, elements of this project will continue to be engrained in future education and outreach efforts through service to Minnesota students and teachers in classrooms and online.

C. Spending History:

Funding Source	M.L. 2008 or FY09	M.L. 2009 or FY10	M.L. 2010 or FY11	M.L. 2011 or FY12-13	M.L. 2013 or FY14
ENTRF (for MN WolfLink videoconferencing programs)				06/2011 \$35,698	01/2013 \$27,732
				02/2012 \$61,823	11/2013 \$32,174
				09/2012 \$32,991	

VIII. ACQUISITION/RESTORATION LIST: N/A

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

X. ACQUISITION/RESTORATION REQUIREMENTS WORKSHEET: N/A

XI. RESEARCH ADDENDUM: N/A

XII. REPORTING REQUIREMENTS:

Periodic work plan status update reports will be submitted on February 1, 2015, August 1, 2015, and February 1, 2016. A final report and associated products will be submitted June 30, 2016.



Environment and Natural Resources Trust Fund

M.L. 2014 Project Budget

Project Title: *Wolf Management Education*

Legal Citation: *M.L. 2014, Chp. 226, Sec. 2, Subd. 09i*

Project Manager: Sharon Reed

Organization: *International Wolf Center*

M.L. 2014 ENRTF Appropriation: \$ 120,000

Project Length and Completion Date: *2 Years, June 30, 2016*

Date of Report: August 15, 2016

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Activity 1 Balance	Activity 2 Budget	Amount Spent	Activity 2 Balance	TOTAL BUDGET	TOTAL BALANCE
BUDGET ITEM								
Personnel (Wages and Benefits)								
<i>Outreach Educator salary and benefits (\$45,465/year x 2 years)</i>	\$90,930	\$89,896	\$1,035				\$90,930	\$1,035
Equipment/Tools/Supplies								
<i>Turning Point survey unit & clickers (purchase of participant assessment tool to be used before and after program and post-program in evaluation)</i>				\$2,705	\$2,705	\$0	\$2,705	\$0
<i>Handouts (partial of estimated \$12,075 for total 460 schools x 35 students/class x \$0.75 each)</i>	\$9,698	\$6,428	\$3,270				\$9,698	\$3,270
Travel expenses in Minnesota								
<i>Mileage for outreach educator (460 schools x avg. 55 miles x \$0.565/mi. = \$14,294) + 8 trips for outreach educator to and from Twin Cities-Ely @ 525 miles x \$0.565/mi. = \$2,373</i>	\$16,667	\$2,437	\$14,230				\$16,667	\$14,230
COLUMN TOTAL	\$117,295	\$98,760	\$18,535	\$2,705	\$2,705	\$0	\$120,000	\$18,535