



Environment and Natural Resources Trust Fund

2024 Request for Proposal

General Information

Proposal ID: 2024-200

Proposal Title: College-School Collaboration to Promote Environmental Career Paths

Project Manager Information

Name: Kimberly Musser

Organization: Minnesota State Colleges and Universities - Minnesota State University Mankato

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Project Basic Information

Project Summary: This project builds partnerships among natural resource professionals, college, middle and high schools to work collaboratively to increase youth exposure to outdoor experiences, environmental issues, and natural resource career paths.

Funds Requested: \$174,000

Proposed Project Completion: June 30, 2026

LCCMR Funding Category: Small Projects (H)

Secondary Category: Environmental Education (C)

Project Location

What is the best scale for describing where your work will take place?

Region(s): SE, SW,

What is the best scale to describe the area impacted by your work?

Statewide

When will the work impact occur?

During the Project and In the Future

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

Currently, there are few field-based outdoor experiences and limited exposure to natural resource career paths for middle and high school students in our region. College students regularly report that they have not been exposed to natural resource career opportunities before coming to college. There is a need to get kids outside engaging in nature-based experiences and to strengthen environmental literacy. We need to support career readiness for natural resource pathways and to teach all students to be good environmental stewards. Additionally, there is a lack of vibrant, wild spaces adjacent to schools. For example, one middle school currently has degraded prairie and the other a polluted pond and both have the desire to improve conditions and create accessible outdoor classrooms.

This project is centered in southern Minnesota, in the heart of Minnesota River Basin where there are significant water quality impairments, ecological challenges, and firsthand experiences with climate change. To improve future sustainability and environmental conditions in our region, we strive to raise awareness, support environmental connection, and instill youth with a conservation ethic. We need to provide outdoor experiences and educate our youth about watershed and ecosystem health to inspire the next generation of conservation stewards.

What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.

This project builds partnerships among natural resource professionals, college, middle and high schools to work collaboratively to increase student's exposure to outdoor experiences, natural resource experts, and environmental career paths. The broad-based partnership aims to link college and environmental professionals with students to build an understanding of environmental issues in the region, support field-based outdoor experiences, clarify the range of careers in natural resources, and integrate environmental education into school curriculum. The overarching goal is to connect more kids to outdoor nature-based experiences and support an action-based conservation ethic.

Specifically, we are seeking funding to:

- Support an interdisciplinary cohort of college students to collaborate with regional partners to support outdoor field experiences and educational initiatives in diverse schools. They will develop natural resource-focused career videos, support educational initiatives, and gain skills and direct work experience in environmental education, conservation planning, habitat restoration, and management.
- Collaborate with high school teachers to support 4 day-long field experience for science students at Minneopa State Park, and a series of monthly in-the-field service opportunities with environmental professionals.
- Collaborate with teachers at 2 middle schools to support environmental educational programming, restoration of healthy and biodiverse outdoor learning labs on school grounds, and co-create interpretive signage.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

The project will build partnerships that strengthen connections between educational institutions and natural resource professionals. It will get more kids outdoors, improve student awareness about natural resource career paths by providing direct experience with environmental professionals. Researchers from the university and state agencies will connect and support field-based experiences and projects that engage regional youth. This partnership will work collaboratively to provide students with immersive environmental experiences, exposure to natural parks, and environmental careers. The partnership will help to restore and maintain a healthy biodiverse natural ecosystem on 2 school grounds with climate change adaption strategies in mind.

Activities and Milestones

Activity 1: College student cohort supports regional educational initiatives, outdoor field experiences, applied learning projects, and helps clarify natural resource career paths

Activity Budget: \$110,692

Activity Description:

In this internship program, a college student cohort will support local environmental work and clarify natural resource career pathways through paid, on-the-job experience. They will receive an academic internship and professional development while working on applied projects to improve environmental education in the region. Students will be mentored by MNSU staff and faculty, regional environmental professionals, and local teachers. Students will collaborate with a network of regional natural resource professionals to support outdoor field experiences and educational initiatives in schools. They will interview diverse professionals and develop natural resource career videos that raise awareness about environmental career paths (12 videos). Students will host meetings to connect and support the network of existing regional environmental efforts to strategize how to collaborate and share resources (3 meetings). They will provide field trip support and in-class lectures to support educational initiatives (4 full day field trips, 14 monthly field trips). Students will help to create management and support stewardship plans (2 schools) and co-create interpretive signage with schools (3 schools, 8 signs). Cohort selection will support the need to increase diversity in environmental careers and to encourage under-represented students (women, racial and ethnic minorities, and individuals with disabilities).

Activity Milestones:

Description	Approximate Completion Date
Students interview professionals and create natural resource career videos for use statewide (12 videos)	May 31, 2026
Students convene regional environmental partners to strategize how to collaborate and share resources (3 meetings)	May 31, 2026
Students support high school environmental education, day-long field trips (4) and monthly field experiences (14)	May 31, 2026
Students support middle school environmental education initiatives, site restoration (2 sites), and interpretive signage (8)	May 31, 2026
College student cohort will gain professional skills, work experience, and career knowledge (16 students))	June 30, 2026

Activity 2: High School collaboration to support for day long field trips and monthly field experiences

Activity Budget: \$23,048

Activity Description:

The team will provide planning and logistical support for high school field trips to Minneopa State Park. The goal is to bring 600 science students from Mankato East High School (MEHS) each year for two day-long field trips (~1,200 total). This is modeled after a successful 2022 field day where 250 biology students from MEHS learned directly from natural resource professionals at 9 stations (indigenous history, bison, big woods and prairies, grassland birds, fish, geology, stream morphology, water quality and aquatic biology). The college team will work with teachers, DNR staff and natural resource professionals to help plan, provide logistical support during the event, and create summary materials after the event.

Additionally, the team will support monthly (14) in-the-field service opportunities for high school students interested in environmental careers (Mankato East and Mankato West, ~60-100 students). In this series, students can meet

professionals, learn about careers, and contribute to hands-on meaningful work in the region. Activities will support and augment existing efforts (YES! Teams, RiverWatch etc.) to enrich student’s exposure to natural resource issues in the region. The team will also support co-creation of two interpretive signs at Mankato East School Forest. (MEHS, 1,296 students, 31% BIPOC).

Activity Milestones:

Description	Approximate Completion Date
Day long field trips for high school students to learn about environment and careers (4)	May 31, 2026
Monthly field trips for high school students to gain field experience and meet experts (14)	May 31, 2026
Co-creation of interpretive signs at Mankato East High School Forest (2 signs)	May 31, 2026

Activity 3: Middle School collaboration to provide educational support, create management plans, and support restoration of prairie and pond

Activity Budget: \$40,260

Activity Description:

The student cohort will work collaboratively with teachers at two middle schools to provide educational support and create a site assessment, management plan, and assist in site restoration. The team will collaborate with teachers to co-create a rich learning experience for middle schoolers to integrate environmental themes into their curriculum. At Prairie Winds Middle School (PWMS), students will work with school and conservation partners to develop a management plan, assist in resource evaluation and site restoration of degraded prairie on school grounds. At Dakota Meadows Middle School (DMMS), students will work with conservation partners to perform a site assessment and management plan for a pond adjacent to the school. Projects will result in a healthy, diverse, restored ecosystems adjacent to schools, an outdoor learning lab, for future educational use. The partnership will co-create interpretive signage that highlight environmental history and features of the site (3 signs at each school site). Interdisciplinary activities will engage science, literature and art classes, but site restoration will impact the entire school. The project will expose more students to restored wild lands, providing access for all including historically under-represented communities (PWMS, 957 students, 33.23% BIPOC.) (DMMS, 887 students, 23.79% BIPOC)

Activity Milestones:

Description	Approximate Completion Date
Collaborate with Dakota Meadows Middle School (DMMS) on educational programming, pond management plan and restoration	May 31, 2026
Collaborate with Prairie Winds Middle School (PWMS) on educational programming, prairie management plan and restoration	May 31, 2026
Co-create interpretive signage to educate middle school students about environmental history and site features (6)	May 31, 2026

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Julia Battern	Mankato East High School	Teacher, Spearheading vision for ISD77 High School Engagement	No
Brooke Hacker	Minnesota Department of Natural Resources	Regional Planner, Spearheading vision for DNR involvement	No
Laura Bemel	Dakota Meadows Middle School	Teacher, Spearheading vision for DMMS involvement	No
Brett Riss	Prairie Winds Middle School	Teacher, Spearheading vision for PWMS involvement	No
Lee Ganske	Minnesota Pollution Control Agency	Program Manager, Potential Field Trip Speaker	No
Angela Archer	Minnesota State University, Mankato	Water Quality Monitoring Specialist, Potential Field Trip Speaker	No
Dr. Gwen Westerman	Minnesota State University, Mankato	English Faculty, Potential Field Trip Speaker	No
Dr. Carrie Jennings	Freshwater Society	Program Manager and Geologist, Potential Field Trip Speaker	No
Tim Pulis	Friends of Minneopa State Park	Bison Expert, Potential Field Trip Speaker	No
Henry Panowitsch	The Prairie Enthusiasts	Prairie Expert, Potential Field Trip Speaker	No
Tony Sindt	Minnesota Department of Natural Resources	Fisheries Expert, Potential Field Trip Speaker	No
Alex Watson	Minnesota Department of Natural Resources	Birding Expert, Potential Field Trip Speaker	No
Jon Lore	Minnesota Department of Natural Resources	Hydrologist, Potential Field Trip Speaker	No
Megan Benage	Minnesota Department of Natural Resources	Regional Ecologist, Potential Field Trip Speaker	No
Jim Vonderharr	The Prairie Enthusiasts	Prairie Expert, Potential Field Trip Speaker	No
Harriet Mason	Friends of Minneopa State Park	Big Woods Expert, Potential Field Trip Speaker	No
Cathi Fouchi	Retired DNR, Friends of	Regional Planning Expert, Potential Field Trip Speaker	No

	Minneopa State Park		
Pat Baskfield	Retired MPCA, Friends of Minneopa State Park	Water Quality and Hydrology Expert, Potential Field Trip Speaker	No
Hanna Anema	Minnesota Department of Natural Resources	Fisheries, Potential Field Trip Speaker	No
Dr. Mriganka De	Minnesota State University, Mankato	Biology Faculty, Soil Scientist, Potential Field Trip Speaker	No
Dr. Beth Fisher	Minnesota State University, Mankato	Geology Faculty, Soil Scientist and Geologist, Potential Field Trip Speaker	No
Dr. Bryce Hoppie	Minnesota State University, Mankato	Geology Faculty, Potential Field Trip Speaker	No
Dr. Mark Bowen	Minnesota State University, Mankato	Geography Faculty, Soil Scientist, Potential Field Trip Speaker	No
Dr. Fei Yuan	Minnesota State University, Mankato	Geography Faculty, GIS and Drone, Potential Field Trip Speaker	No
Dr. Jonathan Hicks	Minnesota State University, Mankato	Recreation, Park and Leisure Studies Faculty, Potential Field Trip Speaker	No
Dr. Matt Kaproth	Minnesota State University, Mankato	Biology Faculty, Plant Ecologist, Potential Field Trip Speaker	No

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?

Long term results from this project will be a citizenry more knowledgeable and engaged with nature. Increasing environmental connection and literacy in youth can leave a legacy of restored natural environments, broader watershed protection, and improved environmental quality. This project also increases nature connections for all youth, particularly underserved BIPOC communities. Educational resources created by this project will be publicly available regionally and across the state. Natural resource career videos, educational materials, interpretive panels and other resources will be available for future students and others interested in learning more about environmental features and history of restored natural areas.

Project Manager and Organization Qualifications

Project Manager Name: Kimberly Musser

Job Title: Associate Director, Water Resources Center

Provide description of the project manager's qualifications to manage the proposed project.

As Associate Director of the Water Resources Center, Minnesota State University, Mankato, Kimberly Musser brings over two decades of project management experience and has coordinated a wide variety of education, planning, and civic engagement projects. She has served as project manager for two LCCMR grants: Integrating Targeted Watershed Planning Tools with Citizen Involvement (LCCMR, 2016) and Minnesota River Experts: An Educational Field Trip Online (LCCMR, 2010). She has a long history of working with teams to distill and disseminate natural resource information via reports (Minnesota River Basin Trends Report, Minnesota River Basin: Ag-Urban Partnership Forum) and supports basin-wide data centers (Minnesota River Basin Data Center, Minnesota Nutrient Planning Portal). Musser works with citizens and local conservation partners to support locally led watershed planning efforts (Le Sueur River Watershed Network, Watonwan Civic Engagement, Blue Earth River Watershed Restoration and Protection Strategy and One Watershed, One Plan).

She is passionate about connecting youth to the outdoors and supporting natural resource educational efforts. She has worked with teachers on a number of environmental initiatives to engage youth in environmental exploration and learning. She enjoys the challenge of taking complex technical and scientific information and making it understandable to broader audiences to educate and help inform planning and decision making. Over the years, she has developed and taught a dozen different courses at Minnesota State University, Mankato in the Geography and Urban and Regional Planning departments. She serves on the board of the Friends of Minneopa State Park, Minnesota River Congress, and Friends of the Minnesota Valley. She holds a master's degree in Community and Regional Planning from the University of Oregon and a Bachelor's degree in Geography from the University of California at Berkeley.

Organization: Minnesota State Colleges and Universities - Minnesota State University Mankato

Organization Description:

Since 1987 the Water Resources Center at Minnesota State University, Mankato (WRC) has served as a regional center for gathering, interpreting, and distributing data of environmental significance. Faculty, staff, and students provide applied research, educational programming, technical assistance, and water resource planning support. Using the latest data, the WRC works with citizens and conservation partners across southern Minnesota to help assess and improve the quality of regional lakes, rivers, wetlands, and groundwater. Since its beginning, the WRC has participated in over 100 research, educational, and planning projects in partnership with dozens of public and private organizations. These projects range from groundwater, river and lake assessments, to GIS analyses and TMDL studies. WRC engages citizens and hosts water quality workshops, and supports the development of watershed-based plans for surface water quality protection (watershed restoration and protection strategies, one watershed, one plans). Long-term partnerships with counties, nonprofit organizations, and state agencies have resulted in many diverse land and water resource initiatives. We have dedicated staff, faculty and students that are committed to enhancing the public's understanding, connection, and capacity to improve water resources in the region.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Project Manager		To manage project budget, reporting and staff to achieve desired project outcomes. To coordinate and support student-driven teams to complete educational initiatives and project activities..			15%	0.48		\$56,235
Student Interns		Interdisciplinary student cohort (8 per year, 16 total) will support educational initiatives, project activities and goals (16 students, 10 hours per week during school year). Student cohort will have expertise in biology, environmental science, recreation and park planning and management, education, GIS, video production and art.			0%	4.9		\$87,040
							Sub Total	\$143,275
Contracts and Services								
Bus Company	Professional or Technical Service Contract	Providing bus transportation for students to field trips (High School=8 full day for field day trips; 12 half day for monthly trips) (Middle Schools=6 full day trips) Total=20 full day trips x \$240 each				-		\$4,800
Sign installation company (Estimate from Sign Pro)	Professional or Technical Service Contract	Placing 8 interpretive signs at school sites (\$1,296 each x 8 signs)				-		\$10,368
							Sub Total	\$15,168
Equipment, Tools, and Supplies								
	Equipment	Video SD cards (2 pack, 128 GB), batteries (AA, 32 pack)	Video production supplies. Using existing (in-kind) video equipment but need memory (SD) cards and batteries.					\$467
	Equipment	Sign Production Company (SignPro Estimate)	Produce signs for interpretive panels at schools (Middle schools-3 signs at					\$14,400

			each school x 2=6 signs; High school -2 signs) (8 signs total at \$1,800 per sign)					
							Sub Total	\$14,867
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	Estimate 612 miles at 0.61 per mile over 2 years	Travel costs to perform in-the-field video interviews, support field trips and visit school sites					\$370
							Sub Total	\$370
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
	Printing	Printing educational materials (1000 copies x 0.32)	Printing educational materials for field trips, signage, general project support over 2 years					\$320
							Sub Total	\$320
Other Expenses								
							Sub Total	-
							Grand Total	\$174,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
In-Kind	General Fund (GF)	In-kind support for field trip speakers (10 speakers per field trip x 4 day long field trips)	Potential	\$32,000
			State Sub Total	\$32,000
Non-State				
In-Kind	Volunteers	Non profit volunteer hours to support program and day long field trips (Assuming 10 people, 2 days each for 4 field days)	Potential	\$32,000
			Non State Sub Total	\$32,000
			Funds Total	\$64,000

Attachments

Required Attachments

Visual Component

File: [27c3c6e1-01b.pdf](#)

Alternate Text for Visual Component

Visual of LCCMR project proposal entitled "College-School Collaboration to Promote Environmental Career Paths." Graphic illustrates the connection between conservation professionals and a college student cohort that supports local middle and high school environmental education efforts in Southern Minnesota. Based in Mankato, Minnesota schools (ISD77) and Minnesota State University, Mankato....

Optional Attachments

Support Letter, Photos, Media, Other

Title	File
LCCMR Support Letter - Julia Battern, Teacher, Mankato East High School	2f147669-d5c.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Does your project have potential for royalties, copyrights, patents, or sale of products and assets?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

N/A

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No

Does your project include the design, construction, or renovation of a building, trail, campground, or other capital asset costing \$10,000 or more?

No

Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services, as defined in Minnesota Statutes section 299C.61 Subd.7?

Yes

Do you certify that background checks are performed for background check crimes, as defined in Minnesota Statutes, section 299C.61, Subd. 2, on all employees, contractors, and volunteers who have or may have access to a child to whom children's services are provided by your organization?

Yes