



# Environment and Natural Resources Trust Fund

2025 Request for Proposal

## General Information

**Proposal ID:** 2025-147

**Proposal Title:** Connecting Students and Watershed Communities through Outdoor Science

## Project Manager Information

**Name:** Kristen Poppleton

**Organization:** Minnesota Trout Unlimited

**Office Telephone:** (218) 382-4892

**Email:** kristen.poppleton@mntu.org

## Project Basic Information

**Project Summary:** Student, teacher, and community outdoor learning opportunities to focus on water quality, groundwater, and aquatic life will develop a community conservation ethic and statewide network of watershed stewards.

**ENRTF Funds Requested:** \$350,000

**Proposed Project Completion:** June 30, 2027

**LCCMR Funding Category:** Environmental Education (C)

## Project Location

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

Statewide

**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.**

Youth are increasingly disconnected from the natural environment and water resources. This lack of connection follows students into adulthood and impacts their ability to make well-informed decisions about their environment and local waters. Minnesota Trout Unlimited's outdoor education program is reversing this trend by providing students, including many in underserved communities, opportunities to do hands-on science along streams and lakes and learn through raising and releasing trout in their communities. More than 15,000 students from over 80 schools have participated in our field days, classroom lessons, and recreational clinics since 2018.

Working with teachers and parents around the state, however, we discovered that many of them share this lack of outdoors connection. A lack of knowledge and experience creates a lack of comfort and confidence that can reduce their willingness to support, reinforce, and extend youth engagement in the outdoors. Teachers may be reluctant to conduct field days or continue the watershed-based curriculum on their own. Parents may be reluctant to participate with their children and families in water-based recreation such as angling. By addressing the lack of knowledge and experience of many teachers and parents we will have greater, long term positive impacts for students, families, and communities.

### **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.**

We will expand our successful curriculum that combines classroom lessons utilizing tangible tools and applied science with outdoors activities that connect students with aquatic ecosystems. Students raise trout in classroom aquariums, closely following development from egg to juvenile. Lessons encourage students to use critical thinking skills across disciplines and support Minnesota Science Standards. These experiences are a springboard to hands-on field studies along streams and lakes, reinforcing learning about water, watersheds, and ecology. MNTU's education program serves many low-income and BIPOC communities, including one tribal school, and we will seek to recruit more schools in these communities. Every student lives near a waterbody worth protecting.

To encourage more teacher-led field studies, we will expand annual in-depth teacher trainings to greater Minnesota. Trainings in Northeast, Northcentral, and Southeast Minnesota, and the Twin Cities, will increase teacher confidence in teaching science outdoors. Regional "Meet a Stream" community events will feature students as leaders and build parent confidence to continue regular outdoor recreation with their families. Events are planned by students interested in deepening their conservation knowledge and action, and feature student presentations, fishing skills clinics, and age-appropriate volunteer work on conservation projects to foster an action-based stewardship ethic.

### **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?**

MNTU's education program develops a connection to the outdoors, fosters a lifelong conservation ethic, empowers students as leaders in their community, and generates intergenerational interest in healthy watersheds. Meet a Stream days will educate the community on how their actions impact water quality and aquatic life and provide them with future opportunities to volunteer to protect Minnesota resources. Connecting MNTU community volunteers and MNTU families will develop a community conservation ethic and statewide network acting to protect, conserve and enhance our environment. This program will reach more than 5,000 students and their families, and hundreds of community members.

## Activities and Milestones

### Activity 1: Activity 1: Developing Student Environmental Ethic: Watershed Field Days and Trout in the Classroom

**Activity Budget:** \$183,150

**Activity Description:**

Students will have the unique opportunity to watch the development of trout from egg to juvenile in classroom aquariums from December to May and release them in local streams. Fall and spring field days along waterways combined with classroom learning will connect students to the natural world in their region, providing them with opportunities to develop outdoor skills and learn about water resources careers. Through this experience trout are a platform to learn about watersheds, clean water, fish biology, conservation, and wetland ecology using hands-on, outdoor, experiential education. During field days students will participate in macroinvertebrate studies and in some cases age-appropriate habitat restoration opportunities on local conservation projects addressing erosion, climate change and invasive species. Spring field days will feature release of trout into natural stream habitat settings. All of these fun experiences will spark lifetime environmental stewardship.

**Activity Milestones:**

Description	Approximate Completion Date
Fall field studies along streams and lakes: macroinvertebrates; stream surveys; groundwater lessons (annually)	December 31, 2026
Coordinate distribution, set up and operation of 50+ classroom aquariums (annually)	December 31, 2026
Trout eggs to classroom aquariums for students to raise through spring (annually)	January 31, 2027
Spring trout releases and aquatic field studies (annually)	June 30, 2027

### Activity 2: Developing Teacher Skills, Knowledge, and Confidence: Instructional Support, Virtual and Regional Teacher Trainings

**Activity Budget:** \$72,950

**Activity Description:**

Annually, MNTU supports 50+ teachers throughout Minnesota as they set up and operate classroom aquariums where students in grades 4 to 12 raise trout from eggs to fingerlings. We will offer seven monthly virtual trainings for new and returning teachers to use aquariums as the springboard for learning about watersheds, conservation, and locally relevant issues. Teachers will be introduced to watershed curricula endorsed by the National Science Teachers Association, such as Project WET and Project WILD Aquatic, as well as Minnesota adaptations that address state grade level standards and locally relevant issues. Returning teachers will share experiences and a learning network listserv will be developed for teachers to connect with questions, experiences and best practices. We will hold four outdoor regional trainings for teachers in Bemidji, Duluth, the Twin Cities, and Winona to build confidence in leading outdoor science learning on field days, trout release days, and beyond. Macroinvertebrate studies, effective outdoor education techniques, and local threats to coldwater fisheries will be discussed. These trainings will include active volunteers from each of MNTU’s chapters - Headwaters, Hiawatha, Gitche Gume, Twin Cities, and Win-Cres.

**Activity Milestones:**

Description	Approximate Completion Date
Coordinate with Chapters, develop, and implement four annual regional trainings (Fall)	November 30, 2026
Develop and implement seven virtual trainings for teachers (Nov.-May)	May 31, 2027

### Activity 3: Developing Community Conservation Ethic: Student Trout Clubs and Meet A Stream Community Events

**Activity Budget:** \$93,900

**Activity Description:**

MNTU, its regional chapters, and students in trout clubs will plan and host four Meet a Stream events each year along streams near Bemidji, Duluth, the Twin Cities, and Winona. These events will bring students, parents, and communities together for intergenerational learning and service, creating lifelong interest in outdoor activities through fishing clinics, outings, and hands-on conservation projects. Trout clubs will allow students interested in fish, fishing, natural resources, and conservation to gain more in-depth and hands-on experiences, and plan learning opportunities at the Meet a Stream events showcasing student leadership and habitat restoration projects. We will utilize the methodologies identified in Minnesota’s Angler Recruitment, Retention and Reactivation (R3) Initiative. Trout club sessions and outings will teach diverse fishing methods, for whatever species inhabit local lakes and streams, in all settings - urban, suburban, and rural. We will partner with schools, parks systems, youth organizations and the MNDNR to reduce barriers to participation. Meet a Stream events will occur outside the normal school day to encourage parent, family, and community participation. Developing tangible connections to aquatic resources in this way fosters a deeper appreciation for the health of our waters and motivates people to become active stewards.

**Activity Milestones:**

Description	Approximate Completion Date
Organize and support after school trout clubs (September to May annually)	June 30, 2027
Coordinate with chapters to plan and implement annual Meet a Stream events (Spring/Summer)	June 30, 2027

## Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Win-Cres Chapter	Minnesota Trout Unlimited	Co-Host of Yearly SE Regional Meet a Stream Events	No
Hiawatha Chapter	Minnesota Trout Unlimited	Co-Host of Yearly SE Regional Meet a Stream Events	No
Twin Cities Chapter	Minnesota Trout Unlimited	Host of Yearly TC Metro Regional Meet a Stream Events	No
Gitche Gumees Chapter	Minnesota Trout Unlimited	Host of Yearly NE Regional Meet a Stream Events	No
Headwaters Chapter	Minnesota Trout Unlimited	Host of Yearly NW Regional Meet a Stream Events	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?**

The program will be fully implemented within the grant term. Afterwards, the resources and materials from the grant will continue to be used by MNTU, schools, and other partners in education programming to reach more students and families. MNTU has secured some private education funding and is actively seeking more. Many teachers will use the training and knowledge we provide them to continue similar environmental education programs in their schools for years afterwards. The connections made between schools, community and MNTU's five chapters around the state will provide a foundation for ongoing volunteer support of environmental education and watershed conservation.

## Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Teaching Students about Watersheds through Outdoor Science	M.L. 2023, , Chp. 60, Art. 2, Sec. 2, Subd. 05g	\$290,000

## Project Manager and Organization Qualifications

**Project Manager Name:** Kristen Poppleton

**Job Title:** Assistant Director

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

Kristen Poppleton is a veteran leader in environmental, outdoor, and science education and has written and managed three previous environmental education ENRTF projects. She holds a Masters of Education in Environmental Education and a MS in Conservation Biology, and served on the most recent Minnesota Science Standards Writing Committee. As the Assistant Director at Minnesota Trout Unlimited she is developing and implementing strategic communications and leading on engagement with staff, chapters and members in advocacy, habitat and education programs.

**Organization:** Minnesota Trout Unlimited

**Organization Description:**

Minnesota Trout Unlimited is a grassroots conservation nonprofit working to protect, restore and sustain coldwater fisheries and watersheds throughout Minnesota. Our members volunteer on conservation projects improving in-stream habitat and riparian forests and grasslands. They also spend hundreds of hours each year on youth education. We recognize that how land is used within a watershed will determine its water quality and ability to support healthy fisheries and vibrant communities. Our holistic approach to outreach and education focuses on this watershed health-water quality connection. Showing students first-hand the aquatic life in their local waters and teaching them how watersheds work to support clean water and aquatic life is part of our long-term strategy to increase public knowledge of how to improve water quality.

Teaching students how lifestyle choices can improve (or harm) watersheds, water quality, and fisheries is important to ensuring well informed adults. Introducing youth and adults to outdoor recreation develops tangible connections with local waters. And participation in local hands-on conservation work fosters a conservation ethic. Increasing understanding of how to keep a watershed healthy, providing skills needed to enjoy them, and providing opportunities to help monitor and improve local waters will lead to strong conservation advocates and leaders.

## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
<b>Personnel</b>								
Assistant Director		Reporting, program , supporting Chapter engagement and financial oversight			18%	0.2		\$14,100
Education Program Manager		Program Manager, Lead on day to day, DNR logistics, school contracts, paperwork			18%	2		\$142,700
Habitat Director		Identify and connect project with MNTU Stream restoration work, professionals, attend meet a stream events and field days			18%	0.2		\$9,400
Administrative Assistant		Budget reporting and reimbursement coordination			0%	0.1		\$3,000
							<b>Sub Total</b>	<b>\$169,200</b>
<b>Contracts and Services</b>								
Environmental Education Specialist	Professional or Technical Service Contract	Scheduling teachers and volunteers, activities onsite, Trout Club, meet a stream, teacher support in Metro/SE, field days				0.8		\$43,200
Environmental Educator #1	Professional or Technical Service Contract	Supporting trout clubs, fields days, meet a stream and teachers in Central and NE MN				0.34		\$18,750
Field Day Educator	Professional or Technical Service Contract	Supporting Field Days in Fall and Spring				0.26		\$13,750
							<b>Sub Total</b>	<b>\$75,700</b>
<b>Equipment, Tools, and Supplies</b>								
	Equipment	10 new comprehensive sets of Aquarium Equipment/ year	Aquariums to support trout					\$30,000
	Tools and Supplies	Recurring set of supplies needed each year: water chem testing kit, filter pad replacements, water conditioner, etc. (~\$120) Additional \$30 per school	Upkeep of tank needed to support fish					\$15,000

		takes into account costs for as needed replacements of low cost equipment such as aerators, tubing, bubblers, breeder nets, tank tops, etc.						
	Equipment	Chillers and filters are the most expensive pieces of equipment. It is anticipated that ~10% of schools each year will need replacements. The cost to mail a chiller back to the manufacturer in CA for refurbishing is ~\$100. Tradewinds covers cost of returning fixed chiller back to MN if it is under the 3 year warranty. MNTU covers cost of return to MN if it not under warranty. Replacing a chiller that can be fixed, but isn't under warranty is ~\$200.	Upkeep of tanks to support fish					\$21,600
	Tools and Supplies	Items include: d-nets and other materials for catching aquatic insects and stream studies; water quality testing equipment; field microscopes; 3D replicas of MN fish; materials to build stream tables; bait, tackle, reels, line for fishing programs; gardening gloves, safety glasses and other supplies for habitat restoration projects; fly tying materials;	Used to enhance and implement a variety of educational lessons, activities, programs, and trainings. Includes field days, winter lessons and activities, Trout Club meetings and end of year event, Meet a Stream, teacher and volunteer trainings					\$2,000
							<b>Sub Total</b>	<b>\$68,600</b>
<b>Capital Expenditures</b>								
							<b>Sub Total</b>	-
<b>Acquisitions and Stewardship</b>								
							<b>Sub Total</b>	-
<b>Travel In Minnesota</b>								
	Miles/ Meals/ Lodging	Travel expenses -- Expenses for Education Program Supervisor, Environmental Education Specialist, Environmental Educators, to travel w/in the Twin Cities metro area and throughout the state (Winona, Bemidji, Duluth, TC Metro) for Meet a Stream, Teacher Trainings, Field Days and Trout Club visits. Mileage expense estimated at current IRS rate of .67 cents/mile. Hotel av- 150.	Travel will be to and from schools, field day locations, various events throughout the year, meetings, MN-DNR facilities, delivering supplies and newsletters to school					\$17,000
							<b>Sub Total</b>	<b>\$17,000</b>



<b>Travel Outside Minnesota</b>								
							<b>Sub Total</b>	-
<b>Printing and Publication</b>								
	Printing	Teacher manuals, education program related handouts, training materials, activities/lessons	Teacher training materials and support					\$1,600
							<b>Sub Total</b>	<b>\$1,600</b>
<b>Other Expenses</b>								
		Trout Eggs and Supplies -- \$150/shipment of eggs from Trout Lodge; \$150 x 3 shipments/yr = \$450/yr; coolers for delivery to schools and for teachers to send fish to DNR headquarters for testing - \$30/cooler x 10 new schools/yr = \$300/yr	Trout eggs necessary to raise Trout in the classroom					\$1,500
		Field Day, Teacher Training, Meet a Stream Facility Costs	Expenses for events -- Building, classroom, and park pavillion costs, in addition to port o potty rentals as needed for programming and events. This includes field days, teacher trainings, Meet a stream events. = \$1,000/yr					\$2,000
		Busing for Field Days and Meet a Stream Events	Reimbursements for schools needing assistance with cost for one of the required program trips. Average cost/school = \$400; 35% of schools request reimbursement each year; 20 schools Busing will be provided to family and community members from schools in Meet a Stream Regions. 4 buses/region average, 4 regions, \$400 each=16 buses/year 20 buses + 16= 36 buses/year					\$14,400
							<b>Sub Total</b>	<b>\$17,900</b>
							<b>Grand Total</b>	<b>\$350,000</b>

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
<b>State</b>				
In-Kind	Volunteer Hours	Volunteers will contribute approximately 600 hours assisting with implementation of the program	Secured	\$19,000
In-Kind	Printing and wide distribution of periodic newspapers with significant space dedicated to ongoing lessons targeting youth.	Supporting information for teachers and students	Secured	\$5,000
In-Kind	Private Foundation Funding	For additional staffing, travel or other program costs for which we are not seeking ENRTF funds.	Potential	\$60,000
			<b>State Sub Total</b>	<b>\$84,000</b>
<b>Non-State</b>				
			<b>Non State Sub Total</b>	-
			<b>Funds Total</b>	<b>\$84,000</b>

**Total Project Cost: \$434,000**

**This amount accurately reflects total project cost?**

Yes

## Attachments

### Required Attachments

#### *Visual Component*

File: [ff6fd8a0-a6d.pdf](#)

#### *Alternate Text for Visual Component*

Connecting Students and Watershed Communities through Outdoor Science provides students, including many in underserved communities, opportunities to do hands-on outdoor science along waterways and learn through raising and releasing trout in their communities. It builds an intergenerational community conservation ethic through outdoor watershed experiences for students, teachers, and communities....

#### *Financial Capacity*

Title	File
Certificate of Good Standing	<a href="#">6d89fa49-2fe.pdf</a>
Most recent 990	<a href="#">9a9b15c5-1d0.pdf</a>
Audited Financials of most recent FY	<a href="#">ee80de0c-0f2.pdf</a>

#### *Board Resolution or Letter*

Title	File
Letter	<a href="#">e78dd012-62a.pdf</a>

## Administrative Use

**Does your project include restoration or acquisition of land rights?**

No

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

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?**

Yes, Trout Unlimited, Inc.

**Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration?**

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 as "the provision of care, treatment, education, training, instruction, or recreation to children")?**

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

**Provide the name(s) and organization(s) of additional individuals assisting in the completion of this proposal:**

John Lenczewski, Minnesota Trout Unlimited

