



## Environment and Natural Resources Trust Fund

### 2026 Request for Proposal

#### General Information

**Proposal ID:** 2026-148

**Proposal Title:** Water Science Field Days Minneapolis/St. Paul Schools

#### Project Manager Information

**Name:** Thomas Crawford

**Organization:** Friends of the Minnesota Valley

**Office Telephone:** (763) 656-9179

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#### Project Basic Information

**Project Summary:** Expand the access of Minneapolis/St. Paul public school students to natural spaces and hands-on scientific opportunities through River Watch's free award winning water focused field day events.

**ENRTF Funds Requested:** \$82,000

**Proposed Project Completion:** June 30, 2028

**LCCMR Funding Category:** Small Projects (G)

**Secondary Category:** Education and Outdoor Recreation (C)

#### Project Location

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

Region(s): Metro, Central, SW,

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

Region(s): Central, Metro,

**When will the work impact occur?**

During the Project

## Narrative

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

There is a great disparity in the access to scientific field-based education opportunities between urban Minneapolis/St. Paul public school students, who are primarily students of color, and their suburban and rural counterparts. This disparity is an extension of the reduced access to natural spaces students within the cities experience. As such, there is a great opportunity to get Minneapolis/St. Paul Public School students involved in outdoor scientific investigations through participation in River Watch's hands-on field-based water science programming - focused on the collection of local chemical and biological water quality data.

Common barriers urban schools encounter when trying to access natural spaces include the general proximity of urban schools to green spaces, and the resulting prohibitive transportation costs, the need for outdoor programming to fulfill state standards, and the constraints on educators' class time & resources. In other words, teachers simply don't have access to the funds, equipment, time, and lesson plans needed to properly host an off-site field day in a natural setting. River Watch is experienced in hosting these field day events for students in the Minnesota River Basin, but doesn't currently have funding to offer the program to Minneapolis/St. Paul public schools

**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.**

River Watch currently offers its award winning water quality data collection program to schools in the Minnesota River Basin. This includes half day long field trips to local natural spaces, like the Minnesota Valley Wildlife Refuge. Field day programming comprises multiple learning stations studying chemical and biological water health, and the impact of land use and climate change on water quality and the landscape. We seek funding to expand these field day opportunities to the public schools in Minneapolis/St. Paul, where students are less likely to have access to natural spaces.

River Watch Field Days eliminate common barriers schools face when considering a field trip. The most immediate barrier is the cost of transportation to the natural spaces, which will be paid for by the LCCMR funding. Second is the lack of availability of programming both designed for outdoor spaces and aligned to state science standards. River Watch Field Days have an established curriculum that aligns with Minnesota State Science Standards for grades 9 through 12. River Watch's planning also ensures that teachers do not need to spend time creating extra educational content because they are participating in an established program with defined methods and relevant learning outcomes.

**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?**

River Watch Field Days seek to create an intellectual and emotional connection between students and nature, while meeting the learning outcomes established by state science standards. The hands-on field-based investigation of Minnesota's surface water provides students with a safe, positive outdoor learning experience. These experiences are necessary to maintain a culture that protects, conserves, preserves, and enhances its natural resources. The many barriers to outdoor learning faced Minneapolis/St. Paul Public School students make events like River Watch Field Days crucial to helping those students build an understanding, and a sense of belonging, stewardship, and respect for Minnesota's natural resources.

## Activities and Milestones

### Activity 1: Recruit Minneapolis/St. Paul Schools to Participate in Field Days

**Activity Budget:** \$6,000

**Activity Description:**

The objective of recruitment is to establish a partnership with at least 10 public schools in Minneapolis and St. Paul school districts. The goal of each partnership is to host a River Watch Field Day once a year over two school years per school.

The following tasks are necessary to establish a meaningful partnership:

1. Contact and meet with the Minneapolis/St. Paul Administrators from the 16 public schools in the district, providing information on how their partnership with River Watch provides their students a free hands-on science-based field trip aligned with MN High School Science Standards.
2. Identify a subset of students from the school (e.g. 10th Grade Biology Students; All 9th Graders) to participate in the Field Day.

These tasks will be carried out by the Program Director - and accomplished by meeting directly with the administrators and educators involved in science education.

The outcome of this outreach will be establishing partnerships with at least 10 different Minneapolis/St. Paul Public Schools who agree to participate in a free River Watch Field Day during the 26-27 and 27-28 school years. These partnerships will be utilized to provide ongoing River Watch programming and secure future education funding.

**Activity Milestones:**

Description	Approximate Completion Date
Outreach to Minneapolis/St. Paul Administrators for the 26-27 School Year	December 31, 2026
Establish Partnership with 10 Minneapolis/St. Paul Public Schools	January 31, 2027
Identify Subgroup of Students to Participate in free River Watch Field Day	February 28, 2027

### Activity 2: Prepare participants and materials for the River Watch Field Day

**Activity Budget:** \$10,700

**Activity Description:**

The objective of preparing students and educators for the Field Day programming is to make sure each participant has the basic information and expectations necessary to make the most out of the event's activities.

The following tasks are necessary to prepare participants for a River Watch Field Day:

1. Disseminate a packet of information to educators, including lesson plans for each station/activity, the activities relevance to state standards, and the responsibilities of educators during the events.
2. Schedule an introductory presentation for the participating students. The presentation covers the basics of water quality data collection, and the expectations and schedule of the Field Day.
3. Schedule a date when the school can participate in the Field Day and the natural area can accommodate the school group.
4. Prepare existing equipment and acquire enough additional equipment to make sure each station has the resources

necessary for each group to fully participate in the activity.

The outcome of the preparation is that each student and educator will have a working familiarity with the Field Day's program topics, and expectations for Field Day - allowing everyone to focus on the learning experiences and enjoy their time in the field.

**Activity Milestones:**

Description	Approximate Completion Date
Create & Disseminate Information Packet for Educators	January 31, 2027
Schedule Presentation for Each Participating Group	January 31, 2027
Schedule the Field Day Date	February 28, 2027
Acquire new equipment and prepare existing equipment for Field Day use	February 28, 2027

### Activity 3: Fulfill the Field Day's Program Staffing and Logistical Needs

**Activity Budget:** \$24,800

**Activity Description:**

The objective of fulfilling program staffing and the event's logistical needs is to make sure that River Watch is fully prepared for the Field Day, and the schools are fully prepared to participate in the Field Day.

The following steps are necessary to ensure all groups are prepared for the Field Day:

1. River Watch hire 2 temporary staff (substitute teachers) per station.
  - a. Train them on the specifics of facilitating River Watch programming (8 hours) and equipment calibration and use (4 hours).
2. Project Manager or Program Instructors present to each of the participating groups at least a week before their Field Day.
  - a. Determine the size of each school's participating group. Then, organize participants into groups of 20 students. This determines how many simultaneous stations the Field Day will need to accommodate all participants.
3. Determine the cost of transportation for each group. Then arrange for reimbursement of those funds to the school.

The outcome of this coordination is that each partnering group will be prepared to accommodate, facilitate, and participate in a River Watch Field Day.

**Activity Milestones:**

Description	Approximate Completion Date
Hire Program Instructors for each Field Day	February 28, 2027
Train Program Instructors on In Class Presentation & Field Day Lesson Plans	March 31, 2027
Arrange Transportation Reimbursement	June 30, 2027

### Activity 4: Host a River Watch Field Day

**Activity Budget:** \$40,500

**Activity Description:**

The objective of hosting a free River Watch Field Day is to deliver outdoor hands-on water science lessons to urban student populations, who experience significant barriers to field based scientific learning opportunities.

The following activities are involved in hosting a River Watch Field Day:

1. The Program Instructors set up each learning station at the selected natural area (Fort Snelling State Park, or the Minnesota Valley Wildlife Refuge). The learning stations include:
  - Hands-On Water Quality Data Collection using industry standard water sampling equipment.
  - Macroinvertebrate collection, identification, and population survey.
  - Land Use Survey - focusing on the land's impact on water quality.
  - Exploration of natural history and current state of the land's natural resources.
2. Orient the participants to the natural area, stations, and facilities.
3. Split participants into their designated groups of 20. Send them to their assigned station, and begin the activity rotation, until each group has attended each station.
4. Clean up the activity sites after the students leave.

The outcome of hosting a River Watch Field Day is that each participant will have engaged in scientific data collection, and a field based investigation one of Minnesota's natural public spaces.

**Activity Milestones:**

Description	Approximate Completion Date
Host 10 River Field Days (Per Year)	June 30, 2028

## 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?**

With two years of fully funded Field Days for Minneapolis/St. Paul Public Schools, Friends of the Minnesota Valley is confident that we can leverage the success of the urban school program to obtain long term funding through a Legislative appropriation (one of our past and current funding sources). The appropriation request will include the schools we have reached as a result of the LCCMR grant.

All data collected through the program is sent to the MPCA, and helps further justify the importance of volunteer collected data and the effectiveness of getting students involved in high quality data collection.

## Project Manager and Organization Qualifications

**Project Manager Name:** Thomas Crawford

**Job Title:** Program Director

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

With over 15 years of outdoor education experience, Tom Crawford has organized and hosted a wide variety of outdoor learning workshops and day camp programs. Furthermore, he has 5 years of experience managing teams of staff and volunteers, and training staff to lead outdoor education lessons.

Currently, Tom has been River Watch's Program Director since April 2022. In that time, the program has expanded from 10 schools in 2020 to 25 schools and environmental clubs in the 2023- 2024 season. Over the two years of Tom's leadership, over 4000 high school students were trained in the basics of water quality data collection, sampling 50 field sites across the Minnesota River Basin. The high school programming also grew to include macroinvertebrate surveys, winter chloride testing, and stream clean ups. All programming is aligned with MN State Science Standards, and all data is shared with the Minnesota Pollution Control Agency for inclusion in their Surface Water Database.

Beyond the high school program, Tom expanded River Watch to include a hands-on elementary curriculum, taught in-class by River Watch high school participants, at educational festivals (like the Metro Children's Water Festival), and at summer camps across the Lower Minnesota River Watershed District. All of this was possible through Tom's ability to engage a wide range of public, private, and non-profit organizations in preparing future generations to meet the environmental challenges of we face.

Outside of River Watch, Tom's qualifying experience includes: five years of environmentally focused event coordination; three years of training camp staff to lead hands-on outdoor programming; two years of managing a team of mental health professionals; five years teaching math, English, and science to diverse populations of students grades 2 through 12; and safely guiding wilderness trips through wild caves in South Dakota, and across the lakes of the Boundary Waters.

**Organization:** Friends of the Minnesota Valley

**Organization Description:**

Friends of the Minnesota Valley works mainly within the Minnesota River watershed to provide educational programming and support policy that promotes healthy and sustainable uses of its rivers, streams and land. Our programs are designed to build a volunteer grassroots network of water stewards and engage them in service of our goal: Achieving a healthy and sustainable environment in the Minnesota River valley. We recognize the interconnectedness of a healthy Minnesota River and a healthy Minnesota Valley National Wildlife Refuge and we work with a variety of public and private partners throughout the watershed to help us achieve this goal.

River Watch, the award winning STEM program of Friends of the Minnesota Valley, is in its seventh year of providing hands-on field-based water science education to students in the Minnesota River Watershed. As the program has grown it has begun to partner with educational institutions and non-profit organizations in the Mississippi River watershed as well.

## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
<b>Personnel</b>								
Project Manager/Lead Instructor		Planning & Coordination, Staff Training, Direct Student Instruction			0%	0.28		\$22,800
5 River Watch Program Instructors		Provide direct instruction to students in class and on field trips			0%	0.52		\$38,500
							<b>Sub Total</b>	<b>\$61,300</b>
<b>Contracts and Services</b>								
TBD	Service Contract	Student Transportation on School Bus. No single contract, transportation to and from Field Trip will be chosen using the school districts current transportation company. Transportation funds will reimburse school's for transportation costs. The funding assumption is \$500/Field Trip in Transportation Costs.				0		\$10,000
							<b>Sub Total</b>	<b>\$10,000</b>
<b>Equipment, Tools, and Supplies</b>								
	Tools and Supplies	Learning Station Supplies (Safety)	First Aid Kits (6, \$15/per), Safety Vests (50, \$3/per), Hand Sanitizer (6, \$10/per)					\$300
	Tools and Supplies	Learning Station Supplies (Macroinvertebrate Survey Tool)	Dip Nets (5, \$100/per), Waders (10, \$50/per)					\$1,000
	Tools and Supplies	Calibrating Reagents/Buffers	There are 8 types of calibrating solutions with regularly fluctuating costs. They are necessary to calibrate the water quality data sensors.					\$1,500
	Equipment	8 Water Quality Sensors	There are 4 types of water quality data sensors that are attached to the YSI Cable and calibrated with the reagents. These are necessary to					\$2,900



			collect high quality hands-on field-based data.					
							Sub Total	\$5,700
Capital Expenditures								
		YSI Handheld Electronic Water Quality Monitoring Device & Cable	This is the device students are trained on to conduct the field-based hands-on water quality monitoring. It consists of a handheld screen that communicates the data and a cable that attaches to the water quality data sensors.	X				\$5,000
							Sub Total	\$5,000
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
							Sub Total	-
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
							Sub Total	-
							Grand Total	\$82,000

## Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Capital Expenditures		YSI Handheld Electronic Water Quality Monitoring Device & Cable	<p>This equipment is necessary for the execution of the program.</p> <p><b>Additional Explanation :</b> As described in the Long Term Funding Section, we intend to use this device exclusively for the population served in this program plan.</p>

## Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
<b>State</b>				
			<b>State Sub Total</b>	-
<b>Non-State</b>				
In-Kind	Friends of the Minnesota Valley	Office Use & Office Supplies	Secured	\$1,000
In-Kind	Friends of the Minnesota Valley	Mileage Reimbursement	Secured	\$350
			<b>Non State Sub Total</b>	<b>\$1,350</b>
			<b>Funds Total</b>	<b>\$1,350</b>

**Total Project Cost: \$83,350**

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

Yes

## Attachments

### Required Attachments

#### *Visual Component*

File: [6b569769-496.pdf](#)

#### *Alternate Text for Visual Component*

The graphic is a summary of the River Watch Field Day programming, including pictures of students sampling water quality, collecting macroinvertebrates, and cleaning trash from local waterways....

#### *Financial Capacity*

Title	File
Friends of Minnesota Valley Financial Information	<a href="#">d602b428-185.pdf</a>

#### *Board Resolution or Letter*

Title	File
Board Resolution	<a href="#">2671045a-2ce.pdf</a>

### Supplemental Attachments

#### *Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other*

Title	File
River Watch 23-24 Annual Report	<a href="#">2185cb11-40d.pdf</a>

## Administrative Use

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

No

**Do you understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?**

N/A

**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?**

No

**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:**

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**Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements**

Yes, I understand

