Environment and Natural Resources Trust Fund

2026 Request for Proposal

General Information

Proposal ID: 2026-488

Proposal Title: Achieving Water Quality Goals by Educating Watershed Practitioners

Project Manager Information

Name: Andy Erickson

Organization: U of MN - St. Anthony Falls Laboratory

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Project Basic Information

Project Summary: The project will create a curriculum that will enhance the technical capacity of water quality practitioners responsible for making watershed planning and project implementation decisions to maximize public benefit.

ENRTF Funds Requested: $85,000

Proposed Project Completion: June 30, 2027

LCCMR Funding Category: Small Projects (G)

Secondary Category: Water (B)

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.

Minnesota is making substantial investment to improve and protect the quality of surface water and groundwater. While some training and certification programs exist, water quality professionals responsible for developing restoration or protection strategies often learn the process of good investment decision-making from trial-and-error over many years of experience. Even with years of experience, many decision-makers aren't familiar with best practices for establishing good and achievable water quality goals or how to track and report progress towards achieving those goals (i.e., metrics of success). Water quality professionals need a standard, robust, and thorough certification course that emphasizes best practices for making well-informed, achievable, and trackable decisions for water quality protection and improvement. This project will overcome the challenges of this problem by 1) demonstrating "best public value" when local, state, and federal resource professionals make investment decisions to improve water quality, by employing a structured and rigorous decision–making process; 2) serving the engineering and scientist practitioner community by enhancing current education programs; and 3) build workforce capacity by decreasing the amount of time needed to onboard new resource professionals.

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.

The project improves the ability of Minnesota's workforce to demonstrate that investments in water quality are reasonable and maximize public benefit, by enhancing the technical capacity of water quality practitioners responsible for making watershed planning and project implementation decisions. The lack of sufficient staff to deliver grant dollars, especially at the local level, creates a bottleneck in working with partners interested in improving water quality. We will create, promote, and deliver a hybrid online/in-person course that teaches how to apply a methodical and structured decision-making process to increase capacity. Practitioners who successfully complete the course's eight modules will receive a certificate for Watershed Management Prioritization. Participants will receive instruction about how to use new and innovative methods to describe surface water quality problems within a watershed, determine where to begin lake and stream restoration and protection efforts, establish credible and achievable water quality goals, develop an implementation strategy, track and report progress, and adapt the implementation strategy based on actual water quality improvement. This will increase the technical capacity of local, state, and federal staff; watershed district staff; consultants; and U of M students and graduates responsible for making water quality investment decisions.

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?

Our goals are: 1) improving the technical capability of water quality practitioners within Minnesota; and 2) addressing the shortage of professionals within Minnesota delivering water quality services, by increasing the technical capacity of current and the number of new resource professionals. After completing the course, participants will become a "Certified Water Quality Professional," which improves the water quality practitioner's ability to demonstrate that investments in water quality are reasonable and maximize public benefits. Standardizing the decision process by certifying professionals increases the likelihood that funds spent to improve water quality result in measurable improvement.

Activities and Milestones

Activity 1: Develop and Deploy Curriculum

Activity Budget: $85,000

Activity Description:
An existing online training course will be adapted and updated for deployment to a MN water quality practitioner audience. If needed, the course materials will be migrated to a University of Minnesota online course system (e.g., Canvas). A parallel, in-person deployment of the course will also be developed to mirror the online course. This increases accessibility to learners that prefer in-person instruction. The course will then be deployed in a beta-testing phase to ensure proper dissemination, identify bugs and errors, and solidify expected time to completion. The course will then be advertised to water quality professionals throughout Minnesota through existing partnerships between the University and local, state, and federal agencies in metro and outstate communities. The course is tentatively expected to be offered in person twice per year (spring and fall) and online during 3-4 quarters (spring, summer, fall, winter). Course instructors will provide technical support to participants and assess post-class effectiveness through feedback surveys and in-person interviews.

Activity Milestones:

Description	Approximate Completion Date
Course Development	September 30, 2026
Course Private Testing and Revision	November 30, 2026
Course Public Launch	January 31, 2027
Course Initial Evaluation	March 31, 2027
Course Revision and update	May 31, 2027
Course Deployment and Evaluation	June 30, 2027

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?

ENRTF funds will be used to adapt a training course curriculum to be specific for Minnesota and then deploy it within Minnesota as a certification program. At the completion of the project, this program will be fully self-funded by participant registration fees for certification and re-certification. The U of M Erosion and Stormwater Management Program has successfully used this model for 20 years training over 3000 attendees per year.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Removing CECs from Stormwater with Biofiltration	M.L. 2023, , Chp. 60, Art. 2, Sec. 2, Subd. 04j	$641,000

Project Manager and Organization Qualifications

Project Manager Name: Andy Erickson

Job Title: Research Manager

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

Dr. Andy Erickson is a researcher and engineer at the University of Minnesota's St. Anthony Falls Laboratory. He studies water quality in urban watersheds, develops stormwater assessment and maintenance best practices, and designs innovative stormwater treatment technologies. In leadership roles, Andy is co-director of the Cold Climate Center of Excellence for Stormwater Infrastructure Technologies, the Chair of the ASTM International E64 Committee on Stormwater Control Measures, and the Chair for the University of Minnesota's Water Council. As a research manager, Dr. Erickson is the principal investigator and leads a team of senior research fellows, research scientists, graduate students, and undergraduates to complete numerous research projects. Dr. Erickson also serves on the St. Anthony Falls Lab Executive Committee, as a Fellow at the University of Minnesota's Institute on the Environment, and as a scholar for the Center for Transportation Studies. He is a member of the Civil, Environmental, and Geo-Engineering Graduate Faculty, Water Resources Science Graduate Faculty, and a member of the Environment and Energy in Transportation Research Council. Dr. Erickson is dedicated to outreach through frequent presentations, workshops, and hosting the popular Minnesota Stormwater Seminar Series. In addition to numerous scientific reports and peer-reviewed publications, he is the editor of the University of Minnesota stormwater newsletter "UPDATES," and author of "Optimizing Stormwater Treatment Practices: A Handbook of Assessment and Maintenance."

Organization: U of MN - St. Anthony Falls Laboratory

Organization Description:

The St. Anthony Falls Laboratory (SAFL) is an interdisciplinary fluid mechanics research lab and educational facility under the College of Science and Engineering at the University of Minnesota. We are engineers and scientists who collaborate across disciplines to solve fluids-related problems in the Earth-surface environment. Our vision encompasses both science and practice, beginning with basic research and moving through application, decision-making, and management. SAFL integrates cutting-edge experimental work at laboratory and field scales with advanced computational tools and theory to obtain innovative, science-based solutions to fluid-flow challenges. Located on Hennepin Island in the Mississippi River in the heart of Minneapolis, SAFL serves as a resource for departments across the Twin Cities campus, the statewide University system, and the broader research community. We partner with local, state and federal

agencies; private consulting firms; businesses of many kinds; technical associations; and other educational institutions to expand knowledge and solve problems.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	$ Amount
Personnel								
Andy Erickson, Principal Investigator		Project Manager; responsible for all deliverables			27%	0.1		$16,484
John Chapman; co-Principal Investigator		Deployment Manager; responsible for integrating new training with existing training program and launching to the public			27%	0.1		$16,180
Mark Deutschman; co-Principal Investigator		Content Manager; responsible for updating and validating content			7%	0.12		$20,708
Addie Johnson; Research Scientist		Content integration specialist; responsible for transferring content into online deployment platform.			24%	0.2		$11,904
Bridget Mendel; Director of Communications		Content revision & optimization for public audience			27%	0.11		$10,910
							Sub Total	**$76,186**
Contracts and Services								
Thinkific	Service Contract	Thinkific is the web hosting platform on which the training curriculum will be hosted.				-		$1,200
Dianne Volek - InTouch24-7	Subaward	Dianne Volek of InTouch24-7 is a web developer, digital and technical communications specialist that plans, writes, designs and delivers multi-channel communication projects. Dianne will support the development and deployment of the curriculum in a digital platform.				0.01		$2,400
							Sub Total	**$3,600**
Equipment, Tools, and Supplies								
							Sub Total	**-**

Capital Expenditures								
							Sub Total	**-**
Acquisitions and Stewardship								
							Sub Total	**-**
Travel In Minnesota								
	Conference Registration Miles/ Meals/ Lodging	Registration and parking for two people to attend both days of the MN Water Resources Conference (October 2026).	Attendance and presentation at the conference will expand the reach of the project and deliverables.					$920
	Miles/ Meals/ Lodging	Expenses to deploy a workshop in another location: Trainer Expenses: lodging 2 nights = $560, miles = $0.7/mile x 240 miles = $336; meals = $130, total = $858/workshop x 2 trainers = $1716 Venue Expenses: Venue + Catering for local and remote workshops: $500 rental + $500 catering = $1000 per workshop x 1 workshop = $1000	While training will be provided online, some learners benefit from in person training. To increase accessibility, at least one in-person workshop will be deployed outside the University of Minnesota campus:					$2,716
							Sub Total	**$3,636**
Travel Outside Minnesota								
							Sub Total	**-**
Printing and Publication								
	Printing	Coursebook printing and supplies for pilot workshop; 100 books @ ~$15.78 per book	Course materials for participants to use.					$1,578
							Sub Total	**$1,578**
Other Expenses								
							Sub Total	**-**
							Grand Total	**$85,000**

Classified Staff or Generally Ineligible Expenses

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

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	**-**
Non-State				
			Non State Sub Total	**-**
			Funds Total	**-**

Total Project Cost: $85,000

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: 7cc1040a-d41.docx

Alternate Text for Visual Component

Image of classroom education for water quality professionals....

Supplemental Attachments

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

Title	File
Sponsored Projects Administrator Approval to Submit.	912e59cb-a0d.pdf
Letter of Support from Minnesota Watersheds.	dd8f79ec-11c.pdf

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?

Yes, I understand the UMN Policy on travel applies.

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")?

No

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

Andy Erickson, U of MN; John Chapman, U of MN; Mark Deutschman U of MN; Angela Boutch, U of MN; Victoria Troxler, U of MN;

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