



Environment and Natural Resources Trust Fund

2026 Request for Proposal

General Information

Proposal ID: 2026-505

Proposal Title: Protecting 1000 Northern Lakes from Septic System Effluent

Project Manager Information

Name: John Downing

Organization: Itasca Waters

Office Telephone: (218) 726-8715

Email: downing@d.umn.edu

Project Basic Information

Project Summary: We will hire a knowledgeable septic system extension educator to train peer advisors to work together with neighbors to reduce the anxiety and cost surrounding septic improvement.

ENRTF Funds Requested: \$467,000

Proposed Project Completion: December 31, 2028

LCCMR Funding Category: Water (B)

Project Location

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

Region(s): NE, NW,

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

Region(s): NE, NW,

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.

Sustained water quality is vital to the health of lakes and to the vitality of local economies. In rural counties like Itasca County, lakes are sensitive to sewage pollution from septic systems, but homeowners can be apprehensive of the potential high cost of septic system improvement and may lack the knowledge and funds to improve their functionality. This proposal will offer relief from septic system pollution to a county with 1000 lakes and at least 5,000 shoreland septic systems.

Poorly functioning Subsurface Sewage Treatment Systems (SSTSs) will be a major source of decreased water quality, especially as shoreland use increases. This can increase eutrophication and harmful algae blooms and degrade fish habitat. Chloride, bacteria and other pollutants like polyfluoroalkyl substances (PFAS), pharmaceuticals, and personal care products are abundant in effluent from STSSs so failed septic systems can cause health risks.

Major impediments to ensuring compliant STSSs are (1) lack of knowledge about septic systems and their maintenance and (2) anxiety associated with high cost of inspection and its implications. Funds are rarely available to follow Minnesota's rigorous STSS inspection guidelines. Inadequate function of STSSs can be solved in many ways, so knowledge and support can help solve STSS problems.

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 offer shoreland STSS owners access to trusted, knowledgeable, confidential and non-binding information on their shoreland septic systems and free professional inspection of systems where needed. We will hire a trained extension educator to work with peer advisors and offer direct payment to local MPCA-approved STSS inspectors and pumpers, when conditions warrant, for interested homeowners. The educator will train part-time advisors who will work with individuals and groups on shorelands to explain the basics of DIY septic system examination, look over septic systems with homeowners, discuss options, recommend professional inspection where it may be needed and arrange for contracting and payment.

Since 2006, Itasca Waters (aka Itasca Water Legacy Partnership) has been embedded in the Itasca County community and is a trusted broker of information and community help. Itasca Waters' economic studies show that septic system maintenance is the #1 lake protection priority of visitors and residents. Most feel that poor water would harm their lives and more than 2/3 state they value lake protection for future generations. Water quality attracts 1.2 million visitor-days that bring \$54 million per year to the local economy. Local economic and knowledge barriers impede water quality protection by STSS improvement.

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 STSS Educator and Advisors will work with STSS owners to offer site-specific information and non-binding guidance to STSS owners on shorelands. Where needed, we will offer to fund up to 300 shoreland septic system inspections. Our STSS Educator will train STSS Advisors to offer informal neighbor-to-neighbor discussions of specific septic system challenges. They will give STSS owners low-risk assessments of their systems. This program is modeled after Itasca Waters' highly successful Shoreland Advisors Program (<https://itascawaters.org/shoreland-advisors>). The STSS program could keep 340-680 million gallons of effluent from entering Itasca County lakes, costing <\$1.37/gallon.

Activities and Milestones

Activity 1: Hire, Train and Engage STSS Extension Educator

Activity Budget: \$139,740

Activity Description:

The Itasca Waters Board of Directors will advertise an open position for a water science-based extension educator, experienced with engagement of a broad range of community members. The search will be assisted by extension personnel working with the Minnesota Sea Grant Program, a University of Minnesota organization that has brought actionable water science to Minnesotans for more than 40 years. The STSS Extension Educator will start work in September in time to participate in at least two training courses offered by the MPCA and the University of Minnesota Extension unit. The minimal courses are “Introduction to Onsite Systems” and “Inspecting Onsite Systems”. Additional training, if needed, will be supported by the Itasca Waters Board of Directors. Should our search instead locate a trained septic system inspector who would like to work in a community extension capacity, the candidate will learn extension education approaches by working alongside experienced extension educators with Minnesota Sea Grant. The specific outcome will be that Itasca County will have an STSS-competent extension educator ready to build the new program.

Activity Milestones:

Description	Approximate Completion Date
Search for an appropriate extension educator	September 30, 2026
Hire an appropriate extension educator	September 30, 2026
Build publicity network and take required trainings to build STSS understanding and competency	February 28, 2027

Activity 2: Train and Engage Neighbor-to-Nighbor STSS Advisor Volunteers

Activity Budget: \$34,710

Activity Description:

In the fall-winter of 2026-2027, the extension educator will recruit part-time Advisors to work as STSS Advisors to help peers by explaining, in common terms, the elements of septic systems and how to look over homeowners’ STSSs to give a basic understanding of function and sources of potential failure. Trainings of STSS Advisors will take place after the STSS Educator has completed training. Trainings of Advisors will be in person, virtual or hybrid. The STSS Extension Educator will ensure that there are 15-30 peer Advisors able and willing to work with residents to do preliminary, non-binding, examinations of homeowners’ STSSs. Advisors will be paid an hourly stipend and will be reimbursed for travel to homeowner sites. The Itasca Waters program coordinator will field calls and help recruit Advisors for training.

Activity Milestones:

Description	Approximate Completion Date
STSS Extension Educator will recruit STSS Advisors	April 30, 2027
STSS Extension Educator will train STSS Advisors	April 30, 2027

Activity 3: STSS Extension Educator and STSS Advisor Volunteers Work with Community Members

Activity Budget: \$102,525

Activity Description:

STSS Advisors will work with the STSS Extension Educator to involve as many shoreland STSS owners in the program as possible. This will be accomplished via meetings, advertising and community events. Together, the Extension Educator

and Advisors will determine which of the septic systems contacted may need professional inspection and which of those have owners wishing to have their systems professionally inspected. Both the STSS Extension Educator and STSS Advisors will distribute information and offer assistance at multiple community gatherings and events. The Itasca Waters program coordinator will create publicity campaigns for the program using social media, events, public service announcements, meetings and other approaches.

Activity Milestones:

Description	Approximate Completion Date
Itasca Waters program coordinator creates publicity campaigns	August 31, 2028
STSS Extension Educator and Advisors identify STSSs needing detailed inspection	August 31, 2028
STSS Extension Educator will work with and educate STSS owners	December 31, 2028
STSS Advisors will work with and educate STSS owners	December 31, 2028

Activity 4: Contract and Schedule STSS Inspections

Activity Budget: \$190,025

Activity Description:

Once systems belonging to willing owners that need professional evaluation are identified, the STSS Extension Educator works with the Itasca Waters Coordinator to book pump-outs and inspections and assist owners with information about the inspection process and outcome. Systems will normally be pumped out prior to inspection so tank integrity can be verified. The STSS Extension Educator will work with owners after the inspection to communicate options resulting from the inspection process. We have budgeted for 300 pump-outs and inspections based on working with about 1000 STSS owners at an expected rate of failure and uptake.

Activity Milestones:

Description	Approximate Completion Date
Contract for septic system pump-outs	September 30, 2028
Contract for septic system inspections	September 30, 2028
Communicate inspection results to STSS owners and explore options	December 31, 2028

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Board of Directors	Itasca Waters	Hiring personnel and coordinating activities	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?

Through the popular Practical Water Wisdom webinar series, Itasca Waters has a state- and region-wide reach. We will leverage the STSS Advisors program through this webinar series to encourage groups in other lake-rich counties (i.e., Otter Tail, St. Louis, Cass, Lake, Becker, Cook, etc.) to kick-off and seek funding for similar programs.

Project Manager and Organization Qualifications

Project Manager Name: John Downing

Job Title: Founding Board Member of Itasca Waters (itascawaters.org) and Director of the Minnesota Sea Grant Program

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

John A. Downing will manage this project. He has 40 years of experience in aquatic research and community outreach. He is currently the Director of the Minnesota Sea Grant College Program, a research scientist at the Large Lakes Observatory, and a tenured Professor in the Department of Biology at the University of Minnesota Duluth. Although he has life-long roots in Minnesota, he was formerly a Regent's Excellence Professor of Ecology, Evolution, & Organismal Biology and Agricultural & Biosystems Engineering at Iowa State University and ran one of the best-funded and long-standing research operations at that institution. His 150+ peer-reviewed books and journal articles cover diverse topics in limnology, marine science, environmental economics, and terrestrial ecology. His leadership experience has been as the Director of the Laurentian Biological Station (Montreal, Quebec), the co-founder of the Inter-University Limnological Research Group (Montreal, Quebec), Director of the Iowa State University Limnology Laboratory (Ames, Iowa), Chair of the Environmental Science Interdepartmental Graduate Program (Ames, Iowa), President of the Association for the Sciences of Limnology and Oceanography, and Chair of the Council of Scientific Society Presidents (Washington, DC). Recent outreach programs have assisted citizens in agricultural regions to understand and mitigate nutrient pollution and helped citizens and industries in northern Minnesota combat eutrophication and avoid lake degradation from aquatic invasive species. Christopher Filstrup is an applied limnologist at the Natural Resources Research Institute. John R. (Jack) Jones is a limnologist, Curator's Professor Emeritus, and J. Michael Dunmire Professor in the School of Natural Resources at the University of Missouri Columbia and a resident of St. Paul, Minnesota, and Deer River, Minnesota.

Organization: Itasca Waters

Organization Description:

Itasca Waters (IW) started in 2006 as a group of volunteers funded by the Blandin Foundation and several other organizations to form networks of diverse groups, and engage other organizations and concerned citizens to maintain abundant, clean water for our continued health, enjoyment and strong economy. IW started as a local organization and has become much more far reaching in Minnesota and continues to concentrate its efforts in providing the initiative for clean water education and awareness to the entire population of Itasca County and others in this vital headwaters region.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
STSS Extension Educator		Work with homeowners and train and coordinate STSS Advisors			33.5%	2		\$173,550
STSS Advisors		Hourly part-time employees to meet with STSS owners, discuss and educate, 2400 hours at \$18/h			0%	1.16		\$43,200
Itasca Waters Coordinator's partial salary		The office coordinator will assist the Itasca Waters board in the hiring process and coordinate appointments and travel of the extension educator and advisors as well as organize contracts for inspections			0%	0.63		\$35,050
							Sub Total	\$251,800
Contracts and Services								
Septic pumping companies in the Itasca County region	Service Contract	Pump-outs of septic systems - 300x @\$250 each				1		\$75,000
Diverse MPCA-certified septic inspectors in the region	Service Contract	These inspector companies will provide septic inspections at prevailing rates in the region, i.e., 300@ \$325 each				1		\$97,500
Diverse print media, radio, television and other advertising outlets	Service Contract	Fulfilling the need to recruit advisors, recruit STSS owners and make sure that we can positively engage as many seasonal and permanent residents as possible				-		\$12,000
							Sub Total	\$184,500

Equipment, Tools, and Supplies								
							Sub Total	-
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	Automobile mileage reimbursement for 49,667 miles at \$0.6/mile	Automobile travel to for STSS Extension Educator and STSS Advisors to work with STSS owners					\$29,800
							Sub Total	\$29,800
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
		Septic function and inspection training for STSS Extension Educator	To ensure that the extension educator has appropriate information to share with STSS owners and STSS Advisors					\$900
							Sub Total	\$900
							Grand Total	\$467,000

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				
			State Sub Total	-
Non-State				
			Non State Sub Total	-
			Funds Total	-

Total Project Cost: \$467,000

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: [23105fe9-6f6.pdf](#)

Alternate Text for Visual Component

Hundreds of shoreland dots show the location of all verified domestic wells around Deer Lake and Moose Lake, Itasca County, Minnesota. The second image is a screenshot of the landing page of the Successful Itasca Waters Shoreland Advisors Program....

Financial Capacity

Title	File
IRS 990 and Good Standing Sec'y of State MN	56dea067-105.pdf

Board Resolution or Letter

Title	File
Resolution to submit from the Itasca Waters Board of Directors	1fa0e49a-34c.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 Commissioner's Plan 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?

Yes, Itasca Waters

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:

Sandy Anderson, Member, Board of Directors, Itasca Waters; David Lick, former Member of the Board of Directors of Itasca Waters

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

