



Environment and Natural Resources Trust Fund

2027 Request for Proposal

General Information

Proposal ID: 2027-569

Proposal Title: Neighbors Protect Lakes: A Septic Stewardship Pilot

Project Manager Information

Name: John Downing

Organization: Itasca Waters

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Project Basic Information

Project Summary: Minnesota pilot trains trusted peer advisors, led by a septic system expert, to help neighbors reduce costs, take voluntary action, prevent pollution, and protect lakes through a scalable, community-driven model.

ENRTF Funds Requested: \$532,000

Proposed Project Completion: June 30, 2030

LCCMR Funding 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?

Region(s): NE, NW, Central,

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.

Thousands of Minnesota lakes are protected by shoreline septic systems that homeowners rarely see, seldom understand, and often fear to inspect. When these systems fail, pollution can flow directly into the waters that define Minnesota's environment, economy, and way of life.

This challenge spans the state. Many lakes rely on aging septic systems sometimes located just feet from shore, making septic stewardship one of the most important and solvable opportunities to protect water quality.

Minnesota's lakes sustain ecosystems, economies, and community identity, yet a largely hidden threat persists: failing Subsurface Sewage Treatment Systems (SSTs). Homeowners want to do the right thing but face two key barriers, limited understanding and concern about inspection and repair costs, so problems often go unnoticed until failure occurs.

In Itasca County alone, more than 1,000 lakes and at least 5,000 systems mean even modest failure rates can release substantial pollution, including nutrients, bacteria, chloride, PFAS, and pharmaceuticals.

Despite strong regulations, many residents lack the confidence to act. When provided trusted information, neighbor support, and clear options, homeowners are far more likely to take steps that protect Minnesota's lakes.

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 launches a community-based pilot program to help shoreland homeowners understand, evaluate, and improve septic systems before problems become severe. This pilot addresses a challenge affecting thousands of lakes statewide and is designed for replication across Minnesota's lake regions.

A trained septic system extension educator will lead the effort, building a network of peer advisors who work directly with residents. Advisors, often neighbors or fellow lake users, will explain system function, demonstrate simple visual checks, and identify warning signs of malfunction. Trusted, neighbor-to-neighbor engagement reduces hesitation and increases participation.

Participation is entirely voluntary. Advisors provide confidential, non-binding guidance. If homeowners choose further evaluation, the program will arrange certified pump-outs and inspections, which occur only at the homeowner's request.

The project will engage hundreds of homeowners and support up to 300 inspections, with costs covered to reduce barriers. In the pilot region alone, lakes generate 1.2 million visitor days and \$54 million annually.

This project could prevent an estimated 8 to 17 metric tons (approximately 17,600 to 37,500 pounds) of phosphorus from entering Minnesota lakes, enough to fuel algal blooms across hundreds of acres of lake water.

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?

This project will engage hundreds of shoreland homeowners in protecting lake water quality through trusted guidance and voluntary action. Up to 300 homeowner-requested septic inspections will identify and address failing systems before significant pollution occurs. By reducing untreated wastewater entering lakes, the project will help limit algal blooms, protect fish habitat, and safeguard public health. It will also build local knowledge, confidence, and stewardship.

As a pilot, it establishes a scalable, community-based model that counties and lake communities across Minnesota can adopt to protect, conserve, and enhance water resources over the long term.

Activities and Milestones

Activity 1: Program Development and Training

Activity Budget: \$120,431

Activity Description:

Objective: Build capacity to deliver trusted, community-based septic system guidance.

Tasks: Recruit and hire a qualified septic system extension educator with expertise in both technical systems and community engagement. Provide training through MPCA-approved courses and University Extension resources to ensure strong technical competency and effective communication skills. The educator will recruit 15–30 peer advisors from lake communities, prioritizing individuals who are trusted, locally connected, and motivated to assist neighbors. Advisors will receive structured training on septic system basics, visual assessment techniques, communication approaches, and program protocols. The team will develop clear outreach materials, homeowner guidance tools, and standardized engagement protocols to ensure consistent, high-quality interactions.

Outputs: A fully trained extension educator; a network of 15–30 active peer advisors; and a suite of standardized training materials, outreach resources, and engagement protocols ready for replication.

Impact/Evaluation: This activity establishes a scalable, community-driven delivery model. Success will be measured by the number and distribution of trained advisors, geographic coverage across target lake areas, advisor readiness and confidence, and initial homeowner engagement levels. These results will demonstrate the feasibility of expanding the model across Minnesota.

Activity Milestones:

| Description | Approximate Completion Date |
|---|-----------------------------|
| Hire and onboard STSS Extension Educator | September 30, 2027 |
| Recruit and train 15–30 peer advisors | March 31, 2028 |
| Develop outreach materials, protocols, and partnerships | March 31, 2028 |

Activity 2: Community Engagement and Voluntary Assessments

Activity Budget: \$119,539

Activity Description:

Objective: Increase homeowner understanding and identify septic systems needing attention.

Tasks: Conduct a coordinated outreach campaign using community meetings, lake association events, social media, local media, and partnerships with counties and lake organizations. Trained peer advisors, often neighbors or fellow lake users, will meet directly with homeowners to explain septic system function, demonstrate simple visual checks, and discuss common signs of malfunction. Advisors will provide confidential, non-binding guidance and help homeowners understand options. When homeowners are interested, advisors will connect them with qualified professionals for pump-outs and inspections. All interactions will follow standardized protocols to ensure consistent, accurate information.

Outputs: Engagement with hundreds of shoreland homeowners; documented observations of system conditions; and clear recommendations for voluntary next steps.

Impact/Evaluation: This activity reduces knowledge gaps and perceived risks, increasing homeowner confidence and participation. Success will be measured by number of engagements, geographic reach, referrals to professionals, homeowner follow-through, and participant satisfaction. Results will also indicate the effectiveness of neighbor-to-neighbor outreach in motivating action.

Activity Milestones:

| Description | Approximate Completion Date |
|---|-----------------------------|
| Launch outreach campaign and begin community events | May 31, 2028 |
| Engage 500+ shoreland homeowners through advisor visits and events | December 31, 2029 |
| Identify and document systems recommended for professional evaluation | December 31, 2029 |

Activity 3: Professional Inspections and Implementation

Activity Budget: \$292,030

Activity Description:

Objective: Reduce pollution by identifying and addressing failing septic systems before they discharge contaminants to lakes and groundwater.

Tasks: For homeowners who request further evaluation, the program will coordinate and fund up to 300 septic system pump-outs and inspections conducted by MPCA-certified professionals. Pump-outs will be scheduled prior to inspection to allow accurate assessment of tank and system condition. The extension educator will coordinate scheduling, ensure quality and consistency, and serve as a liaison between homeowners and service providers. After inspections, results will be clearly explained to homeowners, including system condition, risks, and a range of voluntary options for maintenance, repair, or replacement. Homeowners will receive guidance on next steps and available resources.

Outputs: Up to 300 completed pump-outs and inspections; documented system conditions; and recommended actions for maintenance or improvement.

Impact/Evaluation: This activity directly reduces nutrient and contaminant loading to lakes. Success will be measured by number of inspections completed, estimated phosphorus reduction, homeowner understanding of results, and the rate at which recommended corrective actions are undertaken.

Activity Milestones:

| Description | Approximate Completion Date |
|--|-----------------------------|
| Schedule and complete up to 300 homeowner-requested pump-outs and inspections | March 31, 2030 |
| Communicate inspection results and options to participating homeowners | May 31, 2030 |
| Estimate pollution reduction and prepare final report and replication materials (by June 2030) | June 30, 2030 |

Project Partners and Collaborators

| Name | Organization | Role | Receiving Funds |
|--------------------|---------------|--|-----------------|
| Board of Directors | Itasca Waters | Hiring personnel and coordinating activities | No |

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.

Project results will be actively shared to ensure broad awareness, practical application, and lasting impact. Outreach will be led through the widely attended Practical Water Wisdom webinar series, reaching statewide audiences including lake associations, counties, Tribal partners, and natural resource professionals. Additional dissemination will include presentations at regional meetings, collaboration with county agencies, and targeted briefings for decision-makers.

Plain-language guides, short videos, and visual materials developed through the project will be made publicly available online and shared through partner networks to ensure accessibility for all Minnesotans. Data on participation, system conditions, and outcomes will be documented and provided to local and state agencies to inform water resource management.

The project will produce a replicable program toolkit, including training materials, outreach templates, and implementation guidance, ensuring long-term use beyond the pilot. By combining trusted communication, community engagement, and practical tools, the project will promote lasting behavior change, strengthen stewardship, and demonstrate the value of Environment and Natural Resources Trust Fund investments in protecting Minnesota’s lakes.

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?

Results will be implemented and expanded through Itasca Waters’ widely attended Practical Water Wisdom webinar series, which has strong regional and statewide reach. We will share program methods, outcomes, and lessons learned to enable lake associations, counties, and watershed groups in other lake-rich regions such as Otter Tail, St. Louis, Cass, Lake, Becker, and Cook counties to adopt and adapt this model. Ongoing efforts will be supported by local partnerships and funding from county programs, lake associations, state grants, and philanthropic sources, providing a sustainable pathway to scale septic stewardship across Minnesota.

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) was founded in 2006 as a volunteer-driven initiative supported by the Blandin Foundation and other partner organizations to build diverse networks and engage communities in protecting clean, abundant water. What began as a local effort has grown into a trusted regional leader, advancing water education, collaboration, and stewardship across Itasca County and Minnesota's vital headwaters region.

IW has a strong track record of impact: over 15 years of protecting and promoting clean water, securing more than \$3 million for water science and education, and reaching thousands of students and community members. The organization has strengthened local conservation capacity and is widely recognized as a key nonprofit for lake and watershed stewardship.

Through trusted partnerships, community engagement, and practical education, Itasca Waters continues to inspire informed action, helping ensure Minnesota's lakes and headwaters remain healthy, resilient, and central to the region's environment, economy, and way of life.

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% | 2.75 | | \$238,550 |
| 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 | \$316,800 |
| 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 Equipment | | | | | | | | |
| | | | | | | | 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 | \$532,000 |

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 | | | | |
| In-Kind | University of Minnesota Sea Grant Program | As project manager, John Downing will spend 5% of his time helping Itasca Waters guide this project over the three year duration. His time is supported by federal funds and this type of work is foreseen by the Minnesota Sea Grant strategic plan. | Secured | \$37,500 |
| | | | Non State Sub Total | \$37,500 |
| | | | Funds Total | \$37,500 |

Total Project Cost: \$569,500

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: [74f35f37-944.pdf](#)

Alternate Text for Visual Component

Hidden septic failures quietly pollute Minnesota lakes—but neighbors can change that. Through trusted, voluntary guidance, homeowners learn, act, and prevent problems before they spread. This pilot empowers communities, protects water, and creates a scalable model to safeguard lakes across Minnesota for generations....

Financial Capacity

| Title | File |
|--|----------------------------------|
| Itasca Waters (aka Itasca Water Legacy Partnership) 2024 990 | 24654025-169.pdf |

Board Resolution or Letter

| Title | File |
|---|----------------------------------|
| Resolution of support from the Itasca Waters Board of Directors | eeafaf7e-a0e.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; Jack Jones, Member Board of Directors, Itasca Waters; Tom and Deb McCullough, Members of the Board of Directors, 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