

Environment and Natural Resources Trust Fund

2026 Request for Proposal

General Information

Proposal ID: 2026-013

Proposal Title: Native Fish Exhibits Transforming Aquatic Education in Minnesota

Project Manager Information

Name: Lee Furuseth Organization: Headwaters Science Center Office Telephone: (218) 444-4472 Email: leehscbemidji@gmail.com

Project Basic Information

Project Summary: This project creates interactive, year-round exhibits featuring native fish species, educating Minnesotans about aquatic ecosystems. Hands-on programs emphasize conservation, empowering underserved communities and tourists to protect Minnesota's vital lake resources.

ENRTF Funds Requested: \$299,000

Proposed Project Completion: June 30, 2027

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): NW

What is the best scale to describe the area impacted by your work? Region(s): NW

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.

Northern Minnesota's lake ecology presents a significant knowledge gap for many Minnesotans, despite their frequent interactions with these waters. Most residents lack direct exposure to the intricate dynamics of lake ecosystems, such as fish life cycles, nutrient cycling, food web interactions, and the effects of human activities. Education about these systems often remains abstract and inaccessible, as much of what happens in lake ecosystems is hidden beneath the surface. Without hands-on opportunities to explore concepts like the role of native vegetation, the impact of invasive species, or predator-prey relationships, communities struggle to appreciate and act on the need to protect these environments. Compounding this issue, climate change, shoreline development, and pollution place increasing stress on lake systems. This proposal addresses the critical need to educate Minnesotans about how their actions can safeguard these vital natural resources.

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 Headwaters Science Center (HSC) will expand access to lake ecology education in northern Minnesota through a signature exhibit featuring two year-round tanks showcasing native fish and aquatic vegetation. The largest tank, a 15-foot-long, 5-foot-high, 1,700-gallon centerpiece, will be prominently located in the lobby, visible to the public without admission fees during business hours. This exhibit will provide an engaging introduction to lake ecosystems, fostering awareness of aquatic biodiversity.

Hands-on educational opportunities will include fish species identification, food chains, invasive species, and aquatic ecosystems. Through a partnership with Trout in the Classroom, HSC will raise trout from eggs on-site, allowing visitors to observe the fish life cycle and learn about habitat, diet, and roles in aquatic food webs. Outdoor programming will enhance the experience, enabling participants to net fish from Lake Bemidji, including trout and other native Minnesota species under DNR-permitted netting, connecting them to local ecosystems.

HSC has offered small-scale lake ecology programming for over eight years. This project will scale up that proven model, expanding educational opportunities for visits from underserved schools, including several in the three Native nations in our region. HSC will deliver interactive, year-round programming to inspire stewardship and protect Minnesota's vital lake ecosystems.

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 enhance public awareness and stewardship of Minnesota's aquatic ecosystems through an engaging, year-round native fish exhibit. HSC estimates that within the first five years, 110,000 guests will experience this exhibit at our center in downtown Bemidji, fostering a deeper understanding of fish life cycles, food webs, and conservation challenges. By integrating hands-on education, Trout in the Classroom, and interactive experiences, this initiative empowers residents and tourists to make informed decisions that protect water quality and native species, ensuring long-term conservation benefits for Minnesota's lakes and aquatic resources.

Activities and Milestones

Activity 1: Bidding, Engineering, Construction, Fabrication and Installation of Tanks

Activity Budget: \$257,000

Activity Description:

The Headwaters Science Center (HSC) has secured detailed estimates for all major project components, ensuring a clear path to implementation. This includes fabrication of the primary and secondary tanks, plumbing and water treatment systems, and engineering and construction necessary to reinforce the exhibit floor. Competitive bidding will be used to select contractors for these elements, ensuring cost efficiency and high-quality execution.

HSC is matching funds with significant in-kind contributions, including dedicated staff time, volunteer hours from highly skilled professionals, and cash support from the HSC Contingency Fund. Volunteer contributions include engineering, construction, and technical expertise, further leveraging state investment. With this strong foundation, HSC is well-positioned to efficiently complete the exhibit infrastructure and bring year-round aquatic education to Minnesota.

Activity Milestones:

Description	Approximate Completion Date
Bidding of the Components of the Project.	August 31, 2026
Fabrication of the Tanks	November 30, 2026
Construction to Reinforce the HSC Exhibit Floor	December 31, 2026
Installation of the Tanks, Water Treatment and Plumbing	December 31, 2026

Activity 2: Teaching Using the Exhibit

Activity Budget: \$42,000

Activity Description:

This activity will support the exhibit's operation for the first six months, showcasing Minnesota's lake ecology and local fish species to school groups, tourists, and visitors, providing an educational experience available more than 355 days a year. Through Trout in the Classroom, students will raise trout from eggs, observe their development, and reinforce lessons on life cycles and habitat conservation. Outdoor activities will further enhance learning by allowing participants to release trout and net native species from nearby lakes, with selected fish being transferred to the exhibit tanks for public education. These activities reinforce connections to local aquatic ecosystems and build on HSC's long-standing experience in environmental education, conducted for many years with the proper permits from the Minnesota DNR. Regular tank maintenance, including water quality testing and habitat care, will also be incorporated, demonstrating the science behind maintaining healthy aquatic environments.

Activity Milestones:

Description	Approximate Completion Date
First Cycle of Trout from Eggs to Release	June 30, 2027
Netting of Native Species from Local Lakes with Teaching and Interpretation	June 30, 2027

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Amber Taylor	Trout in the Classroom	Collaborator	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 Headwaters Science Center maintains a diversified budget that includes funding from government sources, memberships, admissions, and donations from individuals, foundations, and corporations. We will continue to develop these contributed and earned revenue streams to sustain the impact of this project beyond its initial funding. Additionally, we are actively seeking long-term funding from private sources and governmental agencies to ensure ongoing support. The long-term operation of this exhibit will be integrated into HSC's core budget, ensuring its continued maintenance and educational impact. Our commitment is to sustain this work well beyond the conclusion of this grant.

Project Manager and Organization Qualifications

Project Manager Name: Lee Furuseth

Job Title: Executive Director

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

Thirty-seven years of public education with seventeen years as a classroom teacher, and twenty years as a building administrator. During the twenty years of administration in the Walker-Akeley-Hackensack and Bagley Schools districts was responsible for the supervision of eighty staff including both certified and non-licensed education staff.

Organization: Headwaters Science Center

Organization Description:

The Headwaters Science Center (HSC), established in 1994 and situated in Bemidji, Minnesota, is a non-profit (501(c)3) that advances science and technology education across its service area encompassing 23 counties in Northern Minnesota. HSC's primary mission is to deliver informal science education through interactive displays, exhibits, and school visits to a diverse audience. This mission is executed outside the traditional school environment, aiming to fill an educational void in the region. HSC has a long established network of collaborations with educational entities, such as Bemidji State University, many Northern Minnesota school districts as well as the White Earth, Red Lake, and Leech Lake Nations. Through these partnerships, HSC seeks to enhance its educational outreach and impact, particularly among underserved communities, thereby contributing significantly to regional development in science and technology education.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineli	% Bene	# FTE	Class ified	\$ Amount
				gible	fits		Staff?	
Personnel								
Project		Work with the fabricator to design, build and install			15%	0.25		\$23,000
Manager/Exhibit		tank including the coordination of facility changes.						
Developer								
Docent Assistant		Tank maintenance and instruction			15%	0.5		\$15,000
Docent		Lead the interpretation of the Native Minnesota Species Tank.			15%	0.5		\$23,000
							Sub Total	\$61,000
Contracts and Services								
EAPC Architects	Service Contract	Engineering design for exhibit floor reinforcement				0.05		\$9,000
Gregg's	Service	Plumbing to support the tank				0.05		\$5.000
Plumbing and	Contract							
Heating								
TBD	Service	Construction to reinforce the tank on the exhibit				0.1		\$30,000
	Contract	floor						
							Sub Total	\$44,000
Equipment,								
Tools, and								
Supplies							Cult	
							Sub Total	-
Capital								
Expenditures								
		Primary tank and water processing equipment	Fish exhibit	Х				\$125,000
		1 smaller tank	To display other fish species and to	Х				\$40,000
			separate competing species					4
		Water treatment system to support tanks	To treat and clean water to sustain fish and aquatic plants.	X				\$25 <i>,</i> 000
							Sub Total	\$190,000
Acquisitions								
Stewardship								

					Sub Total	-
Travel In Minnesota						
	Miles/ Meals/ Lodging	4 trips from HSC to the tank fabricator	1000 Miles @ \$.70 per mile			\$1,000
					Sub Total	\$1,000
Travel Outside Minnesota						
					Sub Total	-
Printing and Publication						
	Printing	Printing of material for the curriculum	Curriculum printing.			\$3,000
					Sub Total	\$3,000
Other Expenses						
					Sub Total	-
					Grand Total	\$299,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Capital Expenditures		Primary tank and water processing equipment	This will be a ongoing exhibit at the science center and won't be removed or repurposed during its useful life. Additional Explanation : Tank will always be used to interpret Minnesota's native fish and aquatic plant species.
Capital Expenditures		1 smaller tank	This will be a ongoing exhibit at the science center and won't be removed or repurposed during its useful life. Additional Explanation : Tank will always be used to interpret Minnesota's native fish and aquatic plant species.
Capital Expenditures		Water treatment system to support tanks	This will be a ongoing exhibit at the science center and won't be removed or repurposed during its useful life. Additional Explanation : The water treatment system will always be used to support the interpretation of Minnesota's native fish and aquatic plant species.

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	-
Non-State				
In-Kind	HSC core funding	Director's salary in support of the facility changes, tank fabrication and the rest of the capitol portion of this project.	Secured	\$20,000
In-Kind	HSC Core Funding	Exhibit developer salary to work with the capital portion of this project.	Secured	\$20,000
In-Kind	HSC Docent Salaries	Time for HSC docents to teach about Minnesota fish and ecology	Secured	\$20,000
In-Kind	Volunteer time	Support of maintaining and teaching with the exhibit.	Secured	\$9,000
In-Kind	Volunteer time	Volunteer time of skilled professionals in support of the capital portion of this project. 200 hours @ \$50 per hour.	Secured	\$10,000
Cash	HSC Endowment	Partial match for capital project. This is to complement in-kind contributions.	Secured	\$25,000
			Non State Sub Total	\$104,000
			Funds	\$104,000
			Total	

Total Project Cost: \$403,000

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: e6d2d88c-e52.pdf

Alternate Text for Visual Component

Visual sketch of young guest pointing at a fish in aquarium (proposed 1,700 gallon). Attached photos show the 2023 trout release, as well as an actual photo of a young guest pointing at a trout at the Headwaters Science Center....

Financial Capacity

Title	File
HSC IRS 501c3A	<u>7b182090-139.pdf</u>
2023 990 Opportunities in Science Financial Disclosure.	<u>66212fc8-70b.pdf</u>
	-

Board Resolution or Letter

Title	File
Headwaters Science Center Board Resolution March 12, 2025	ae5a0357-158.pdf

Supplemental Attachments

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

Title	File
Letter of Support from Trout Unlimited Representative	<u>847f1bdd-d30.pdf</u>
Letter from Teacher at Trout in the Classroom School	50fd23b7-53a.pdf
Capital Construction Project Questionnaire	dc8b9f8a-982.pdf
Construction Engineer Statement of Support	<u>87aef98b-33a.pdf</u>

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?

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:

Paul Morin, Headwaters Science Center volunteer.

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