



Environment and Natural Resources Trust Fund

2027 Request for Proposal

General Information

Proposal ID: 2027-165

Proposal Title: Two-Eyed Seeing: Mentorship Blending Indigenous and Western Science

Project Manager Information

Name: Seth Thompson

Organization: Freshwater Society

Office Telephone: (651) 313-5804

Email: sthompson@freshwater.org

Project Basic Information

Project Summary: This work proposes a new intergenerational mentorship program that prioritizes Indigenous knowledge to support youth in developing reciprocal and culturally-sustaining relationships with water and raising awareness of environmental careers.

ENRTF Funds Requested: \$495,000

Proposed Project Completion: June 30, 2030

LCCMR Funding Category: Education and Outdoor Recreation (C)

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.

Water holds deep cultural meaning in Minnesota's Indigenous communities. However, much of the work in water resource management and education has not fully embraced the power of combining cultural perspectives and knowledge with Western frameworks in a holistic approach to water. For example, water policy largely draws on western science, missing important perspectives from Indigenous science knowledge. This divide has also resulted in cultural norms within the field of environmental sciences that exclude Indigenous worldviews and limit opportunities for Indigenous youth to see themselves as scientists. To help close this gap, we will collaborate with Indigenous communities across Minnesota to co-create culturally relevant mentorship experiences that support intergenerational Indigenous knowledge transfer and broadening definitions of science identity to support interest in environmental careers for Minnesota's youth. We have assembled a team with deep expertise in cross-cultural programming including Indigenous science, western science, and Indigenous youth work. This complimentary expertise across the team ensures that co-development of programming happens with care and attention paid to the community norms and cultural expectations of program participants.

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.

Through experiential, place-based design, we will explore ~3-5 watersheds to identify sites and waterways, knowledge/stories and activities of importance to local tribes and complete a community mapping project to promote Indigenous reconnection and stewardship of Minnesota waters. We will then assess and adapt as we continue to engage new community partners, weaving their cultural perspectives into the programming. Using storied land, a method of land education that seeks to "extend critical cartography's spatial analysis with the temporal analysis of Indigenous struggle" and two-eyed seeing, a framework that builds an ethic of knowledge coexistence and complementarity, we propose to engage 2 cohorts of intergenerational learning for community members in: 1). the urban Twin Cities (led by Dr. Katie Johnston-Goodstar at the University of Minnesota) and 2). the 1855 ceded territories (led by Dr. Hillary Barron at Bemidji State University). This programming will create intergenerational cohorts of learners that support sustainability of Indigenous Science knowledge and build capacity for environmental leadership within Minnesota's Indigenous communities.

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 work will support conservation and preservation of Minnesota's water by elevating Indigenous science and ways of knowing alongside western science perspectives while empowering the next generation of environmental leaders and advocates for water issues in Minnesota. The intergenerational mentorship will support improved cultural connectedness with water and improved awareness of current environmental issues impacting water within Minnesota. By identifying local community issues and developing community-centered solutions that blend both Indigenous knowledge and western science we will empower the next generation of environmental leaders and advocated equipped with a holistic understanding of water issues with Minnesota.

Activities and Milestones

Activity 1: Watershed based workshops

Activity Budget: \$250,000

Activity Description:

This activity will convene intergenerational cohorts in two regions—the urban Twin Cities and the 1855 ceded territories—to participate in watershed-based workshops grounded in place. Participants will engage in experiential learning at culturally and ecologically significant water sites identified through collaboration with Tribal leaders, Elders, and community partners. Workshops will integrate Indigenous knowledge systems, storytelling, and land-based teachings with Western ecological science, including watershed dynamics, water quality monitoring, and current environmental stressors such as nutrient loading and contaminants.

Using the frameworks of Two-Eyed Seeing and storied land, participants will explore how historical and contemporary land use decisions affect water health while learning traditional ecological knowledge related to stewardship and reciprocity. Community mapping activities will document cultural, ecological, and historical relationships to specific watersheds, creating shared resources that strengthen local awareness and long-term stewardship.

These workshops build foundational knowledge, cultural connectedness, and technical skills while fostering intergenerational mentorship. By centering water as a living relative rather than solely a resource, this activity supports conservation and protection outcomes through culturally grounded environmental leadership development and expanded participation of Indigenous youth and community members in watershed stewardship.

Activity Milestones:

Description	Approximate Completion Date
Recruit first cohort of mentors and mentee	September 30, 2027
Complete watershed based workshop series	May 31, 2028
Recruit second cohort of mentors and mentees	September 30, 2028
Complete second round of workshops	May 31, 2029

Activity 2: Mentee Action Projects

Activity Budget: \$200,000

Activity Description:

Through mentored action projects, youth participants will design and implement community-based water initiatives that respond to locally identified watershed priorities. Guided by Indigenous mentors, Elders, and environmental professionals, mentees will identify a water-related concern (such as shoreline erosion, stormwater runoff, chemical contamination, or habitat degradation) and develop a project that integrates Indigenous knowledge and Western science methods.

Projects may include restoring native shoreline vegetation, conducting community water quality assessments, creating culturally grounded educational materials about water protection, or developing youth-led awareness campaigns aligned with local watershed management goals. Participants will collect and analyze data where appropriate, document cultural teachings connected to water stewardship, and present findings to Tribal leaders, watershed districts, or community stakeholders.

This activity strengthens conservation outcomes by translating knowledge gained in workshops into measurable,

community-centered action. Mentee projects increase awareness of environmental career paths, increase local capacity for resource management, and cultivate environmental leadership among Indigenous youth. By grounding projects in cultural teachings and reciprocal responsibility to water, this activity reinforces long-term stewardship ethics while contributing directly to the protection, preservation, and enhancement of Minnesota’s water resources.

Activity Milestones:

Description	Approximate Completion Date
First cohort completes action projects	October 31, 2028
Second cohort completes action projects	October 31, 2029

Activity 3: Program Annual Gathering for Dissemination and Career Exploration

Activity Budget: \$45,000

Activity Description:

The annual gathering will convene cohort participants, families, Tribal leaders, environmental professionals, and community partners to share learning, celebrate accomplishments, and explore environmental career pathways. This event will serve as both a dissemination platform and a bridge to future opportunities in environmental leadership. Participants will present watershed mapping products, mentee action project results, and cultural reflections through multimedia presentations, storytelling, poster sessions, and interactive demonstrations.

Environmental agencies, Tribal natural resource departments, watershed districts, and university programs will be invited to engage with youth and families, creating space for mentorship, internships, and career pathway conversations. The annual gathering will intentionally model Two-Eyed Seeing by highlighting the complementary strengths of Indigenous science and Western scientific approaches to water protections

Activity Milestones:

Description	Approximate Completion Date
First Annual Gathering	December 31, 2028
Second Annual Gathering	December 31, 2029

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Katie Johnson Goodstar	University of Minnesota-Twin Cities	Youth Development Expert	Yes
Hillary Barron	Bemidji State University	Indigenous Science and Education Expert	Yes
Dana Tricky	Individual	Indigenous Artist and Educator	Yes

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 knowledge and outcomes will be shared broadly with both academic and community audiences to ensure that lessons learned strengthen environmental stewardship and expand understanding of Indigenous science approaches to water. Academic dissemination will include presentations at regional and national conferences focused on environmental science, Indigenous education, and community-based research. Project partners, including Katie Johnston-Goodstar and Hillary Barron, will collaborate on peer-reviewed journal articles that document the program model, watershed mapping approach, and outcomes related to Indigenous youth engagement and environmental leadership development. These publications will contribute to scholarship on Indigenous science education, intergenerational learning, and community-driven conservation.

Community dissemination will prioritize accessible and culturally relevant knowledge sharing with participating local communities. Results and stories from watershed workshops and mentee action projects will be shared through community presentations, visual materials, and digital summaries designed for broad public audiences. The project's Annual Gathering will serve as a central dissemination event where participants present their work through storytelling, posters, and demonstrations for families, Tribal leaders, educators, and environmental professionals. This gathering will foster dialogue about water stewardship, highlight Indigenous knowledge, and create opportunities for future collaboration, mentorship, and environmental career pathways.

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 this support, we will develop a scalable model of mentorship programming. We will pursue financial sustainability through state and federal grants and continue seek funding with local foundation partners. All program materials will be made available through the Freshwater website and we plan to integrate this mentorship programming into the programmatic framework of Minnesota Water Stewards to provide long-term program sustainability.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Supporting Minnesota Teachers to Implement Culturally Sustaining Environmental Education	M.L. 2024, , Chp. 83, Art. , Sec. 2, Subd. 05c	\$295,000
Biofilm Mediated Destruction of PFAS in Groundwater	M.L. 2025, First Special Session, Chp. 1, Art. 2, Sec. 2, Subd. 04t	\$1,336,000

Project Manager and Organization Qualifications

Project Manager Name: Seth Thompson

Job Title: Programs Director

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

Seth K. Thompson is the Programs Director for Freshwater and brings over a decade of experience in implementing public engagement and outreach programs to the team. He previously ran the Public Engagement team in the College of Biological sciences where he oversaw the design and delivery of programming that served over 10,000 Minnesotans a year. He has extensive experience in grants management and program design, particularly related to work in public education and K-12 programming. He has extensive experience working with K-12 teachers, having provided professional development programming for over 75 teacher partners and maintains strong connections with K-12 teachers and administrators across the Twin Cities. At Freshwater, he provides programmatic support and leadership for the community engagement and education efforts, including the Minnesota Water Stewards program, Culturally Sustaining Environmental Education program, and Water Workforce Pathways program.

Thompson also has an extensive scholarly record in the fields of aquatic ecology and STEM equity, with more than 15 peer-reviewed publications across the two spaces.

Organization: Freshwater Society

Organization Description:

Freshwater is a trusted science and education organization based in Minnesota working for clean and reliable water in our region. Founded in 1968 by community members who decided to act when they discovered water quality issues on Lake Minnetonka, we became the first freshwater biology research lab in North America. Over the last fifty years, the organization has shifted from an emphasis on primary research to incorporate more education and policy advocacy. Ensuring access to clean water for all Minnesotans in the future requires powerful collective action, from individual residents to government agencies. Collective action and sound physical science continue to be at the heart of our work. Freshwater takes a comprehensive look at water and recognizes the need for multiple approaches to empower people to protect it. Freshwater understands that to truly reach people, we have to meet people where they are and listen to their needs, rather than impose our own. To that end, we believe strongly that people who will be impacted by a decision need to be involved in naming the problem being addressed, and in crafting the solution.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Seth Thompson		Freshwater Programs Director - Thompson will serve as the Project Manager and oversee all aspects of project execution with respect to milestone completion and budget management. Thompson will be the primary point of contract for Freshwater on the project.			30%	0.3		\$50,000
Alyssa Fabia		Freshwater Tribal Outreach and Research Coordinator - Fabia support project activities by building relationships with tribal community partners and planning and implementing mentor cohort activities.			20%	0.75		\$75,000
Project Coordinator - To be named		The project coordinator will support the Project Manager with the day to day activities of the project, including mentorship program development and implementation. The coordinator will play a key role in sustained support with the mentorship cohorts by providing communication and logistical support for the cohort programming.			20%	1.5		\$100,000
							Sub Total	\$225,000
Contracts and Services								
Dr. Hillary Barron	Service Contract	Dr. Barron will provide expert support for integrating Indigenous and Western science philosophies as well as leadership in the recruitment and development of the Northern Minnesota cohort.				0.3		\$45,000
Dana Trickey	Service Contract	Dana Trickey will provide leadership in content development for the mentoring programming and serve as a lead mentor for the Northern Minnesota cohort.				0.75		\$75,000
							Sub Total	\$120,000
Equipment, Tools, and Supplies								

	Tools and Supplies	Program Materials	This includes material supplies (printed education materials, facilitator supplies, venue rental etc) for the cohort programming. We estimate materials cost at \$5,000 per year.					\$15,000
	Tools and Supplies	Annual Gathering Materials - general event materials for each of the annual gatherings such as form boards, table cloths, name badges, etc. We budget \$2,500 in consumable materials for each of the two annual gatherings with an anticipated audience size of ~75 per event.	The annual event will serve as the primary dissemination event for the project and serve as a community building and networking activity for program participants. It will also be a key opportunity for youth participants to connect with professionals in environmental careers.					\$5,000
							Sub Total	\$20,000
Capital Equipment								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	Mileage reimbursement for trips to support mentorship programming. We estimate approximately 1 per month for 3 project team members for a total of 108 local trips over the course of the project with an average costs of ~\$280 for mileage and meals and lodging.	Freshwater staff will support mentor cohort programming with trips to the identified watershed and associated Minnesota communities to support participation.					\$30,000
	Miles/ Meals/ Lodging	Travel Reimbursement for Program Participants - Estimate approximately 6 trips per cohort for 30 program participants for a total of 360 trips. We budget an average \$125 per trip to cover mileage and lodging (when needed).	Reimbursement for program participant (non-employee) travel costs associated with attending program activities.	X				\$45,000
							Sub Total	\$75,000
Travel Outside Minnesota								

	Conference Registration Miles/ Meals/ Lodging	Conference attendance for 1 conference outside of Minnesota in each project year	Freshwater staff will attend once conference per year outside of Minnesota to disseminate project findings at relevant national scale audience. We will specifically present project fundings through oral or poster presentations. We estimate cost for a conference to be ~\$3,000 per conference (\$750 air fair, \$750 for lodging, \$500 per diem, \$100 ground transportation, and \$900 in conference registration/abstract fees).	X				\$9,000
							Sub Total	\$9,000
Printing and Publication								
							Sub Total	-
Other Expenses								
		Food for Cohort Gatherings	While it is generally ineligible, we propose to provide food for participants at the regular cohort gatherings to incentivize participation. We budget \$500 for food at each event (12 total events over the course of the project).	X				\$6,000
		Stipends for Indigenous Elder Mentors	We will provide a \$3,000 stipend to support participation of Elder mentors in the programming. We anticipate recruiting 5 mentors per cohort for a total of 10 mentors.					\$30,000
		Meals for Annual Gathering Events - We will provide light breakfast options and a catered lunch to all annual gathering attendees. We have budgeted for ~75 attendees at each gathering and \$15 per person for refreshments and \$50 per attendee for a catered lunch.	Annual gatherings serve as the primary community building and dissemination activity in the project. Since it will be a full day gathering, we will provide a light breakfast and lunch to gathering attendees.	X				\$10,000
							Sub Total	\$46,000
							Grand Total	\$495,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Travel Outside Minnesota	Conference Registration Miles/Meals/Lodging	Conference attendance for 1 conference outside of Minnesota in each project year	These funds will specifically support attendance for one Freshwater staff to attend a relevant conference to dissemination project activities through an oral or poster presentation.
Travel In Minnesota	Miles/Meals/Lodging	Travel Reimbursement for Program Participants - Estimate approximately 6 trips per cohort for 30 program participants for a total of 360 trips. We budget an average \$125 per trip to cover mileage and lodging (when needed).	Offsetting travel costs of program participants is imperative for ensuring access to participation for community members.
Other Expenses		Food for Cohort Gatherings	Having food available at cohort events will increase participation and information dissemination as well as align with cultural norms and practices.
Other Expenses		Meals for Annual Gathering Events - We will provide light breakfast options and a catered lunch to all annual gathering attendees. We have budgeted for ~75 attendees at each gathering and \$15 per person for refreshments and \$50 per attendee for a catered lunch.	Food access will be restricted to gathering participants and provided in recognition of their commitment to attend a full day gathering.

Non ENRTF Funds

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

Total Project Cost: \$495,000

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: [8e5b6576-f0c.pdf](#)

Alternate Text for Visual Component

One page flyer showing the proposed activities and outcomes....

Financial Capacity

Title	File
Audited Statements	2ca86b95-950.pdf
Evidence of Good Standing	91465993-39a.pdf
Public Copy 990	bbdcbee1-7f2.pdf

Board Resolution or Letter

Title	File
Board Approval	46844e04-3b2.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?

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:

N/A

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