



Environment and Natural Resources Trust Fund

2027 Request for Proposal

General Information

Proposal ID: 2027-055

Proposal Title: Water Science-Policy Fellowships: Strengthening Minnesota's Waters and Workforce

Project Manager Information

Name: Alexander Frie

Organization: U of MN - Duluth - Sea Grant

Office Telephone: (218) 726-8714

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Project Basic Information

Project Summary: Minnesota Water Science and Policy Fellowships will embed skilled fellows into resource agencies for one year, providing immediate technical capacity for water resource management while developing Minnesota's future science-policy workforce

ENRTF Funds Requested: \$505,000

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?

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's lakes, rivers, streams, and groundwater face risks of degradation from aquatic invasive species, emerging and legacy pollutants, development, and overuse. Protecting, conserving, preserving, and enhancing Minnesotans' water resources requires professionals skilled at transforming scientific understanding into practical resource management solutions. These critical resource managers aren't born; they are made through formal, informal, and experiential training experiences.

Resource managers across the state, including county, tribal, and state agencies, feel a pressing need for additional skilled capacity to support efforts to protect, conserve, preserve, and enhance Minnesota's natural resources. Providing this capacity, even for limited periods, can have an outsized impact on the management of Minnesota's resources.

Concurrently, a critical gap in developing the natural resource workforce occurs when highly skilled and specialized professionals seek positions without direct experience in resource management or public policy. Limited opportunities to gain this direct experience can lead them to take their skills outside of Minnesota or leave the field of resource management altogether, depriving Minnesota of their experience and expertise.

This proposal supports implementation of a solution to these dual challenges by building resource management capacity and providing practical experience for early-career 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 Minnesota Sea Grant Science and Policy Fellowship provides a proven tool to address Minnesota's resource management and workforce challenges. Established with ENRTF support, the fellowship embeds fellows into host organizations for one year, providing fellows with essential policy experience and hosts with the technical capacity to advance water resource goals.

Through a rigorous, competitive host-and-fellow selection process, the program attracts exceptional talent and professional opportunities. The inaugural 2025-2026 cohort has already achieved measurable impacts at the state and county levels, investigating the impacts of invasive species management policy, analyzing large-scale water-use permit data, and creating tools for stream restoration prioritization.

Finally, this fellowship is built on shared investment, and continued ENRTF support would be a critical catalyst, incentivizing host contributions and allowing the program to recruit new hosts. In the second year of the program, fellowship hosts committed ~25% program costs. Across the country, analogous Sea Grant fellowships are often 50-100% host funded. We anticipate fellow support will be matched 1:1 by host contributions, nearly doubling the impact of the state's investment.

ENRTF Funding will leverage this proven infrastructure to intentionally develop the next generation of Minnesota's resource managers while concurrently improving water resource management across the state.

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?

1: Expansion of the water resource science-policy workforce in Minnesota. To measure this, we will track the number of fellows who advance to careers involving the protection, conservation, preservation, and enhancement of Minnesota's natural resources.

2: Improved water resource science-policy implementation in Minnesota. To measure this, fellows and hosts will report

how each fellowship contributes to the protection, conservation, preservation, and enhancement of Minnesota's Natural resources.

Activities and Milestones

Activity 1: Recruitment and Competitive Selection of High-Impact Fellowship Host Organizations

Activity Budget: \$28,897

Activity Description:

For each fellowship class, we will recruit and competitively select fellowship hosts, including state, tribal, and local agencies, through a transparent and competitive process. We will recruit hosts by issuing a “Call for Hosts” and conducting direct outreach to prospective hosts across Minnesota through webinars, informational meetings, and social media promotion. After recruitment, applications will undergo external review by a review panel using a standardized rubric to assess mentor capacity, project feasibility, and alignment with ENRTF’s mission.

Outcomes of this activity include finalized Host Position Descriptions (PDs) that describe high-quality opportunities for fellows to apply science and policy to protect, conserve, preserve, and enhance Minnesota’s resources. Success will be evaluated by the competitiveness and diversity of the host applicant pool and by the alignment of fellowship goals with the ENRTF’s mission.

LCCMR-funded fellowships will additionally benefit from ongoing recruitment of both hosts and fellows before funding begins.

Activity Milestones:

Description	Approximate Completion Date
2028-2029 Call for Hosts Released	August 31, 2027
2028-2029 Hosts selected	December 31, 2027
2029-2030 Call for Hosts Released	August 31, 2028
2029-2030 Hosts selected	December 31, 2028
2030-2031 Call for Hosts Released	August 31, 2029
2030-2031 Hosts selected	December 31, 2029

Activity 2: Fellow Recruitment, Competitive Selection, and Strategic Matching

Activity Budget: \$39,878

Activity Description:

We will recruit top-tier fellowship candidates through digital and print promotion, informational webinars, and targeted outreach to graduate programs. Prospective fellows will be evaluated by a selection panel, which will assess their relevant skills and interest in applying science and policy to protect, conserve, preserve, and enhance Minnesota’s water resources. Based on these criteria, finalists will be selected for participation in a matching workshop.

Finalists will be matched with hosts through a dynamic matching process that maximizes host-fellow fit across the program. This competitive process will be conducted through a matching workshop that uses interviews and mutual ranking to maximize alignment between a fellow’s expertise and a host agency’s objectives.

Over the course of the project, we anticipate executing this process three times, yielding 12 highly-qualified fellows working on projects to advance the goals of LCCMR and ENRTF. Success will be measured by the depth of the applicant pool and the quality of host-fellow matches.

LCCMR-funded fellowships will additionally benefit from ongoing recruitment of both hosts and fellows before funding begins.

Activity Milestones:

Description	Approximate Completion Date
2028-2029 Prospective Fellow Recruitment	February 28, 2028
2028-2029 Fellows and Hosts Matching Workshop	April 30, 2028
2029-2030 Prospective Fellow Recruitment	February 28, 2029
2029-2030 Fellows and Hosts Matching Workshop	April 30, 2029
2030-2031 Prospective Fellow Recruitment	February 28, 2030
2030-2031 Fellows and Hosts Matching Workshop	April 30, 2030

Activity 3: Fellowship Execution, Reporting, and Dissemination

Activity Budget: \$436,225

Activity Description:

The program will support year-long fellowship placements that maximize technical contributions to host agencies while facilitating the professional transition of fellows into Minnesota's science-policy workforce. During the fellowship, each fellow will receive a \$65,000 stipend and \$3,500 in self-directed professional development funds. We anticipate half of fellow support being sourced from non-ENRTF funding. At the beginning of each one-year fellowship, fellows and host mentors will co-develop formal work, professional development, and dissemination plans that detail specific fellowship activities and their alignment with ENRTF's goals.

To support the success of fellows and hosts, Sea Grant will regularly check in with fellows and hosts, facilitate regular reporting, and coordinate an annual program webinar for results dissemination. Project results will be shared through public webinars, internal and public agency presentations, and project-specific products. Success will be evaluated by the completion of the work plan deliverables, through final reports, and the tracking of fellows' careers within Minnesota.

Activity Milestones:

Description	Approximate Completion Date
2027-2028 Fellowship Cohort Begins	July 31, 2027
2027-2028 Fellowship Cohort Mid-year Reporting	January 31, 2028
2027-2028 Fellowship Cohort Final Webinar and Reporting	June 30, 2028
2028-2029 Fellowship Cohort Begins	July 31, 2028
2028-2029 Fellowship Cohort Mid-year Reporting	January 31, 2029
2028-2029 Fellowship Cohort Final Webinar and Reporting	June 30, 2029
2029-2030 Fellowship Cohort Begins	July 31, 2029
2029-2030 Fellowship Cohort Mid-year Reporting	January 31, 2030
2029-2030 Fellowship Cohort Final Webinar and Reporting Complete	June 30, 2030

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.

Results from the fellowship program will be disseminated through multiple mechanisms, including reports by the fellows, public webinars, and fellow-specific dissemination plans. This combination of approaches will ensure that the program's results are communicated to the appropriate audiences.

Planning for dissemination will begin at the host selection stage of the program. In the application to serve as a host, hosts will be asked to lay out a preliminary dissemination plan. This plan will ensure that each fellow has a framework to disseminate results independently of those directly organized by Minnesota Sea Grant. Once fellows are selected, they will work with their hosts to finalize dissemination plans to match the needs of the fellow, their host, and target audiences.

At the end of their fellowship, fellows, in collaboration with their host office, will prepare a report summarizing the major outputs of the fellow's experience. This report will detail the fellow's support of Minnesota's Natural Resources, skills developed by the fellow, and professional development experiences participated in by the fellow. The report will be used to demonstrate impacts not only on fellows' career trajectories but also on Minnesota's natural resources. Reports will be shared with relevant parties, including hosts, relevant natural resource agencies, and the LCCMR. Additionally, reports may be made publicly available online on the Minnesota Sea Grant website or the University of Minnesota Digital Conservancy, if consented to by the host office, to ensure continued access after each fellowship year.

In addition to the final report, we will host a public webinar after each fellowship year. During this webinar, all fellows will summarize their experience and their impact on Minnesota's natural resources. Target audiences for the webinar will include the general public, natural resource managers, and members of the LCCMR. Through reports, public webinars, and fellow-specific dissemination efforts, we will ensure that the impact of this fellowship program is communicated broadly.

In all materials and presentations supported by this project, the Environment and Natural Resources Trust Fund will be acknowledged through the use of the trust fund logo or attribution language on project print and electronic media, publications, signage, and other communications per the ENRTF Acknowledgment Guidelines.

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?

This project will support three years of the science policy fellowship program. Although LCCMR support is critical to this program, we anticipate, and have previously demonstrated, that hosts are willing to build on LCCMR's investment. After the project completion, we also anticipate continued administrative support from the Minnesota Sea Grant and the pursuit of a variety of state, federal, and private funding sources to maintain and expand the program's impact

We anticipate the results of this project, the trained fellows and the work they complete, will continue to positively impact Minnesota's natural resources far beyond the end of the project.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
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Water Science and Policy Fellowships for Minnesota	M.L. 2024, , Chp. 83, Art. , Sec. 2, Subd. 05f	\$407,000
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Project Manager and Organization Qualifications

Project Manager Name: Alexander Frie

Job Title: Research and Fellowship Coordinator

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

Alexander Frie, Ph.D., offers a proven track record of program design, multi-agency coordination, and fiscal oversight. As the Research and Fellowship Coordinator for Minnesota Sea Grant, Dr. Frie directs the end-to-end administration of competitive fellowship and grant solicitations. His portfolio includes managing Minnesota's applicants for the Knauss Fellowship, the National Marine Fisheries Service-Sea Grant Joint Fellowship, and the NOAA Coastal Management Fellowship. Specific to this proposal, Dr. Frie successfully designed and implemented the infrastructure for the inaugural Minnesota Science and Policy Fellowship. In this capacity, he established the program's administrative framework, including host recruitment, fellow matching, and the acquisition of external matching funds. Dr. Frie possesses extensive experience managing high-value extramural awards, having served as PI on multiple federal and state grants. With a Ph.D. in Environmental Science and an Affiliate Faculty appointment at the University of Minnesota, he operates at the interface of workforce development and academic research, uniquely qualifying him to bridge the gap between resource managers and graduate fellows.

Organization: U of MN - Duluth - Sea Grant

Organization Description:

Minnesota Sea Grant is a systemwide program of the University of Minnesota and one of 34 federal-university Sea Grant partnerships across the country that bring applied water science to communities. Minnesota Sea Grant is supported through a partnership with the National Oceanographic and Atmospheric Administration and the University of Minnesota. Minnesota Sea Grant's mission is to inform and facilitate interaction among the public and scientists to enhance the communities, the environment, and the economies along Lake Superior and across Minnesota's inland waters by identifying information needs, supporting scientific research to address those needs, translating the resulting science into actionable information, and communicating those results to the public.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Fellowship Coordinator		Coordinate fellowship recruitment and selection, coordinate host recruitment and selection, arrange fellowship placements, coordinate fellowship placement workshop, support fellows during the fellowship, and plan fellowship professional development. Lead reporting of project and fellowship activities.			27%	0.51		\$65,778
Communication Manager:		Manage fellowship promotion. Including creating and maintaining a fellowship program webpage, creating and distributing a social media promotion campaign for recruitment of fellows and host sites, and email promotion for recruitment of fellows and host sites.			24%	0.06		\$7,328
Executive Admin Specialist		Coordinate matching workshop logistics, including lodging and travel for attendees, workshop program, and catering. Coordinate stipend and professional development fund disbursements.			24%	0.12		\$9,905
							Sub Total	\$83,011
Contracts and Services								
							Sub Total	-
Equipment, Tools, and Supplies								
							Sub Total	-
Capital Equipment								
							Sub Total	-
Acquisitions and Stewardship								

							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	Estimated as \$210 a night x 6 finalists x 1 night x 3 workshops	Finalist lodging during matching workshops	X				\$3,780
	Miles/ Meals/ Lodging	Finalists travel to and from workshops	Mileage or other Minnesota travel for finalists to attend matching workshops. Estimated as \$189.39 a finalist x 6 finalists by 3 workshops.	X				\$3,409
							Sub Total	\$7,189
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
	Printing	Print Media.. Estimated at a cost of \$1 a flyer for 200 flyers.	Flyers for distribution to graduate programs in Minnesota for fellow recruitment.					\$200
							Sub Total	\$200
Other Expenses								
		Matching Workshop Food	Meals for matching workshop attendees. Estimated as \$25 a meal x (4 hosts x 2 representatives per host + 8 finalists + 4 staff) x 2 meals for 2 workshops.	X				\$3,300
		Fellowship Stipends	Fellow financial support for 4 fellows a year to be placed with hosts to complete projects in water resources policy. Estimated as \$65,000 per fellow, with 50% LCCMR Support					\$390,000
		Fellow professional development funds for 4 fellows to support professional development and presentation of results related to water resources policy. Estimated as \$3,500 per fellow, 50% LCCMR Support	Provide professional development support to fellows to help them best support Minnesota's Natural Resources. Fellow professional development funds for 4 fellows a year to support professional development and presentation of					\$21,000

			results related to water resources policy. Estimated as \$3,500 per fellow, 50% LCCMR Support					
		Shipping costs for print media distribution. Estimated at \$1.50 per package for 200 packages	Shipping of flyers for fellow recruitment					\$300
							Sub Total	\$414,600
							Grand Total	\$505,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Travel In Minnesota	Miles/Meals/Lodging	Estimated as \$210 a night x 6 finalists x 1 night x 3 workshops	Finalists are not employees - travel required for high-quality matching process and to provide a professional development experience for fellows.
Travel In Minnesota	Miles/Meals/Lodging	Finalists travel to and from workshops	Finalists are not employees - travel required for high-quality matching process and to provide a professional development experience for fellows.
Other Expenses		Matching Workshop Food	Hosts and program finalists are non-employees. Meals are required to execute a full-day in-person matching workshop.

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
In-Kind	University of Minnesota	Unrecovered Indirect costs	Secured	\$34,780
			State Sub Total	\$34,780
Non-State				
Cash	Host or other funds	Funds to support the remaining 50% of fellows' stipends and support four fellows a year.	Potential	\$390,000
Cash	Host or Other funds	Funds to support the remaining 50% of fellows' professional development funds.	Potential	\$21,000
			Non State Sub Total	\$411,000
			Funds Total	\$445,780

Total Project Cost: \$950,780

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: [13de9d14-960.pdf](#)

Alternate Text for Visual Component

Logo with dark blue top separated from a light blue bottom by a red banner with the text "Science & Policy Fellowship." Bottom has a silhouette of a walleye. The top has a silhouette of wild rice and scales, a white star, and the text "Minnesota Sea Grant." Credit: Cait Dettmann...

Supplemental Attachments

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

Title	File
UMN submission authorization letter	c694b5eb-413.docx
St. Louis County - Letter of Support	4592161a-f40.pdf
MN Department of Health - Letter of Support	151ae3c5-607.pdf
Filmore Soil and Water Conservation District - Letter of Support	8f97cbd6-f16.pdf
Anoka County - Letter of Support	dedb4454-853.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:

Brady Rivers - UMD Sponsored Projects Administration

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

N/A