



Environment and Natural Resources Trust Fund

2026 Request for Proposal

General Information

Proposal ID: 2026-067

Proposal Title: Collaborating for Resilience with the Prairie Reconstruction Initiative

Project Manager Information

Name: Daniel Cariveau

Organization: U of MN - College of Food, Agricultural and Natural Resource Sciences

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Project Basic Information

Project Summary: A multi-agency effort to meet habitat goals on prairie reconstructions through partner coordination, monitoring, analysis, and outreach. The resulting products will help build resilience in a threatened prairie landscape.

ENRTF Funds Requested: \$526,000

Proposed Project Completion: June 30, 2029

LCCMR Funding Category: Land (F)

Project Location

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

Region(s): NW, SW, Central,

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

Statewide

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.

Prairies once dominated large portions of North America. Now, agricultural conversion has made them one of the most endangered ecosystems globally. While some original prairie remains, reconstructing prairie habitats on former agricultural lands is required to conserve the plants and animals of this critical ecosystem. Prairie reconstruction is one of the most complex and expensive habitat interventions land managers undertake, with many factors impacting reconstruction outcomes. The Prairie Reconstruction Initiative (PRI), a cross-organizational group of public and private practitioners and researchers, was formed to address these challenges. The PRI group, in its 13-year history, has led numerous field days and webinar series, developed monitoring protocols, and initiated the “PRI database” to hold prairie reconstruction planting and monitoring data from contributors in pursuit of its mission to “Build an engaged community of practice who work together to overcome uncertainties through all phases of prairie reconstruction”. While PRI has achieved much, its grassroots origin means coordination amongst this diverse group can be complicated due to differing missions and capacities. For PRI to fully realize its vision, dedicated: leadership, database, and monitoring support are needed to move the group forward.

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 aim to hire personnel to fill critical roles within the PRI group to help lead and manage efforts that have been identified as high priority. Most PRI members serve as a “side role” alongside the primary duties of their respective positions. A Partnership Coordinator will facilitate collective action, collaboration, and timely data management. We will hire a graduate student to compare how different management strategies affect prairie resilience and diversity. This research will ensure that the PRI database can reach its full potential. With a coordinator and researchers in place, we can mine the collective experience of many practitioners to find key elements in the process that increase the likelihood we all succeed. These positions help fulfill PRI’s underlying goals of sharing the collective knowledge of the larger community of practice, investigating problems through research-focused analysis, and developing standardized monitoring protocols and an associated prairie reconstruction management database.

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?

The project will promote the protection, conservation, preservation, and enhancement of Minnesota’s natural resources. By documenting prairie reconstruction and management best practices, we will work with partners to improve the reconstruction process for habitats vital for a wide range of Minnesota species, particularly species of greatest conservation need. New and enhanced partnerships will promote an efficient conduit for information sharing and resource use. Land managers can use the project products to create ecologically functional prairies that facilitate species migration in the face of climate change. We expect more acres of high-quality prairie implemented and managed at the lowest possible cost.

Activities and Milestones

Activity 1: State-wide prairie reconstruction partnership coordinator

Activity Budget: \$177,851

Activity Description:

The State-wide prairie reconstruction partnership coordinator will play a pivotal role in building and managing collaboration on prairie reconstruction efforts throughout Minnesota. The coordinator will unify a diverse group of stakeholders involved in prairie reconstructions through organization and open communication. The coordinator will serve as a point person and liaison between partners for PRI to standardize practices and align goals and objectives. Specific duties for this position will include leading partnership meetings, developing and updating annual work plans and project records, coordinating partner data, and implementing monitoring. These efforts will promote a culture of shared learning and innovation and will lead to more effective practices resulting in more diverse prairie reconstructions. These benefits will promote more resilient ecosystems that provide numerous ecological, cultural, and economic benefits for Minnesotans and support biodiversity, and promote long-term sustainability for future generations.

Activity Milestones:

Description	Approximate Completion Date
Coordinate with research team (Activity 2) for project planning and dissemination schedule.	March 31, 2027
Lead and develop Annual Work Plans to set accomplishable goals for the year	December 31, 2028
Complete legacy prairie reconstruction data input for MNDNR and USFWS	December 31, 2028
Create and Update Project Records and Annual Narratives	December 31, 2028
Lead biweekly partnership meetings to keep the larger PRI informed	June 30, 2029
Assist with small group coordination efforts to meet annual goals	June 30, 2029

Activity 2: Investigating outcome and habitat resilience to reconstruction seed mix and post-reconstruction management activities

Activity Budget: \$282,313

Activity Description:

We will hire a graduate student and field technician team to compare plant communities and floral resources for pollinators among prairie reconstructions. The student will assess reconstructions that vary along two main factors: seed mix diversity and time since planting. First, we will choose sites that have implemented high-diversity or low-diversity seed mixes. A primary goal of prairie reconstructions is to build diverse prairies as they support more species at higher trophic levels, including imperiled species, and are more resilient to ecological change. However, diverse seed mixes are expensive, and it is unclear which plant species germinate, establish, and persist. Second, we will select sites that vary in age. Some plant communities may initially establish but then quickly become outcompeted by grasses such as big bluestem (*Andropogon gerardii*).

We will use the information gathered in Activity 1 to select sites. Over two summers the student will use a nested plot approach developed by PRI researchers to quantify plant abundance. The student will also quantify two metrics of pollinator resources. First, the student will count milkweed stems to assess the habitat quality for the monarch butterfly. Second, the student will quantify total as well as species-specific floral resource abundance.

Activity Milestones:

Description	Approximate Completion Date
Hire MSc student	August 31, 2026
Gather and assess reconstruction site data with PRI Database, select sites	December 31, 2026
Develop habitat assessment project and submit to Master's Committee for review	March 31, 2027
Recruit and hire field crews for habitat monitoring efforts - Two field seasons	March 31, 2028
Use PRI protocols to monitor reconstructions at study locations	October 31, 2028
Compile and analyze reconstruction and monitoring data	December 31, 2028
Submit master's thesis submitted	June 30, 2029

Activity 3: Dissemination of findings and lessons learned from Prairie Reconstruction efforts.

Activity Budget: \$65,836

Activity Description:

Ensuring access to the data and information learned from this group is critical for fostering collective learning. The dissemination of the findings from the Prairie Reconstruction Initiative will be integral to improving prairie reconstruction practices. We will utilize a multi-faceted approach to share insights gathered from targeted research and monitoring efforts and legacy data investigations. The approach will be a combination of easily accessible digital resources, regular webinars and workshops, and research publications. We aim to regularly engage with our audiences through a social media campaign to highlight success stories and other relevant prairie reconstruction materials.

Activity Milestones:

Description	Approximate Completion Date
Develop database reporting tools to aid in the documentation of reconstruction actions	December 31, 2026
Develop and disseminate decision support tool for land managers incorporating new findings	November 30, 2028
Develop a long-term plan for PRI to incorporate potential funding and partners	December 31, 2028
Write and disseminate summary newsletter highlighting prairie management best practices and accomplishments	February 28, 2029
Create and deliver webinars, workshops, and training modules in coordination with the small groups (quarterly)	June 30, 2029

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Ben Walker	US Fish and Wildlife Service	Agency representative, data collaborator, PRI member	No
Megan Benage	MN Department of Natural Resources	Agency representative, data collaborator, PRI member	No
Genevieve Brand	MN Department of Natural Resources	Agency representative, data collaborator, PRI member	No
Amy Symstad	US Geological Survey	Agency representative, data analysis collaborator, PRI member	No
Angela Begosh	US Fish and Wildlife Service	Agency representative, data collaborator, PRI Member	No
Marissa Ahlering	The Nature Conservancy	Organization representative, PRI member	No
Kyle Elms	MN Department of Natural Resources, American Conservation Experience	Agency representative, data collaborator, PRI Member	No
Rebecca Esser	US Fish and Wildlife Service	Agency representative, data collaborator, PRI Member	No
Ian Lane	US Fish and Wildlife Service	Agency representative, data collaborator, PRI Member	No
Brandon Semel	US Fish and Wildlife Service	Agency representative, data collaborator, PRI Member	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?

We plan for the results and information from this project to be implemented through continued engagement with prairie reconstruction stakeholders. Our products will be easily accessible and will continue to communicate our findings well past the life of this project. With these positions filled during this project, we will work to develop a long-term plan that will identify potential sources of funding through partners or grants to ensure that the insights gained through this project will be a foundation that can be built on in future years.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
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Creating Cost-Effective Forage And Management Actions For Pollinators	M.L. 2021, First Special Session, Chp. 6, Art. 6, Sec. 2, Subd. 08n	\$198,000
Developing Conservation Priorities for Rare and Specialist Bees	M.L. 2023, , Chp. 60, Art. 2, Sec. 2, Subd. 03j	\$619,000
Minnesota Bee and Beneficial Species Habitat Enhancement II	M.L. 2023, , Chp. 60, Art. 2, Sec. 2, Subd. 08a	\$876,000

Project Manager and Organization Qualifications

Project Manager Name: Daniel Cariveau

Job Title: Associate Professor

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

Daniel Cariveau is an associate professor in the Department of Entomology at the University of Minnesota, Twin Cities campus. He graduated with a degree in Wildlife Biology from the University of Montana and earned his PhD in ecology from Colorado State University. His research focuses on how prairie restoration implementation and management influence bees and floral resources. A key area of his work is determining which factors are important to creating high-quality habitat at the lowest cost. He has built a diverse array of collaborators across governmental, and non-governmental organizations, as well as with private citizens. He is a long-standing member of the Prairie Reconstruction Initiative Advisory Team (PRIAT). He also studies how to most effectively monitor native bee species. His lab built a large dataset of bees in the state of Minnesota, documenting over 520 species in the state. He has published 44 peer-reviewed papers, which have been cited over 9,800 times.

Organization: U of MN - College of Food, Agricultural and Natural Resource Sciences

Organization Description:

The University of Minnesota, Twin Cities, is a land grant institution. The College of Food, Agricultural and Natural Resources (CFANS) is one of over 15 colleges or schools at UMN with a vision "To advance Minnesota as a global leader in food, agriculture, and natural resources through extraordinary education, science-based solutions, and dynamic public engagement that nourishes people and enhances the environment in which we live." The Department of Entomology is focused on research and education as it relates to insects and how insects relate "to human welfare and the maintenance of a healthy environment."

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Prairie Reconstruction Project Coordinator		Coordinates among agency staff, organizes and maintains database, outreach, assist in research			32.3%	3		\$245,356
Graduate Student Researcher		Conduct research on prairie seed mixes including data collection, report and publication writing, help in outreach			23.2%	1.5		\$106,624
Faculty Supervisor		Oversee project, write reports and publications, advisor to graduate student, supervise staff			36.6%	0.08		\$18,491
Field Technicians		Collect and enter data associated with restoration			7.4%	1		\$46,053
Undergraduate Technicians - Multiple		Enter and check data			0%	0.34		\$17,280
							Sub Total	\$433,804
Contracts and Services								
							Sub Total	-
Equipment, Tools, and Supplies								
	Tools and Supplies	Miscellaneous field supplies including PCV pipe, flagging, pencils, pens, clipboard, plant presses	For collecting and recording data					\$1,456
							Sub Total	\$1,456
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-

Travel In Minnesota								
	Miles/ Meals/ Lodging	Per Diem for 4 people for 14 weeks for 3 days per week at \$110 per day	Staff will travel to field sites and camp to collect data throughout MN prairie region					\$36,960
	Miles/ Meals/ Lodging	Two rental cars per year for 3 months for 2 years at 1250 per car per year	Travel to field sites					\$7,500
	Miles/ Meals/ Lodging	500 miles per week for 14 weeks per year for 2 cars for 2 years	Travel to field sites with UMN renatl					\$7,280
							Sub Total	\$51,740
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
		Tuition	Tuition to support student training for research - for 2 years at full time and 2 semester at 1 credit status					\$39,000
							Sub Total	\$39,000
							Grand Total	\$526,000

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: \$526,000

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: [b5ea4cc6-dc3.pdf](#)

Alternate Text for Visual Component

Project visual describing the last three activities with photos that represent each activity....

Supplemental Attachments

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

Title	File
Board Resolution	92de0888-c2a.pdf
Prairie Reconstruction Initiative Fact Sheet Example 3	0e84d30c-f82.pdf
Prairie Reconstruction Initiative Fact Sheet Example 2	bf6ae2d2-7cd.pdf
Prairie Reconstruction Initiative Fact Sheet Example 1	679c3a3f-b57.pdf
Letter of Support TNC	990807e6-847.pdf
Letter of Support USGS	bbb434a1-8a3.docx

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?

Yes

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:

Ben Walker (USFWS), Genevieve Brand (MN DNR), Kyle Elms (MN DNR), Ian Lane (MN DNR)

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