Environment and Natural Resources Trust Fund

2023 Request for Proposal

General Information

Proposal ID: 2023-232

Proposal Title: Community Response Monitoring for Adaptive Management

Project Manager Information

Name: David Ruff

Organization: The Nature Conservancy

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Project Basic Information

Project Summary: Project goal is to monitor species response at a community level, in order to determine if management actions increase biodiversity and build ecosystem resiliency as intended.

Funds Requested: $498,000

Proposed Project Completion: June 30, 2026

LCCMR Funding Category: Foundational Natural Resource Data and Information (A)

Project Location

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

Region(s): SE

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.

Within the two Conservation Focus Areas (CFAs) of Southeast MN, significant restoration and enhancement work has been occurring at a landscape scale, funded with a combination of Outdoor Heritage Fund (OHF) and Competitive State Wildlife Grant (CSWG) grants. This has included hundreds of acres of bluff prairie enhancement, targeted in areas with landscape resilience and connectivity. The general success or failure of those projects is typically assessed observationally. For Species in Greatest Conservation Need (SGCN), population trends are monitored by Minnesota's Natural Heritage and Nongame Research Program. However, those surveys are not sufficient to document the impact of specific management on plants, wildlife, and natural communities in a way that informs future management.

Different bluff prairie sites have received a variety of treatment strategies, typically to control brush responses following initial removal of red-cedar, buckthorn, and honeysuckle. A properly designed monitoring program would provide information on the differing effects of prescribed fire, prescribed browsing with goats, manual brush removal, and herbicide treatment on the response of plant, insect, bird, and reptile communities. Assessing these impacts is a key step in adaptive management, and is critical for a partnership engaged in on-going, long-term, landscape scale ecosystem management

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 seek funding to conduct plant and wildlife community-level monitoring at multiple restoration and enhancement sites within the two Southeast MN CFAs. Surveys would focus on four broad taxa: plants, insects, birds, and reptiles. Sites would be strategically selected based on management history and expected future management projects to capture a range of management techniques and time since initial restoration, as well as currently untreated sites. The untreated sites would be a combination of control sites and places where we expect restoration to occur in the next several years. This will set up a potential study design for a future round of monitoring to follow a Before, After, Control, Impact (BACI) framework, allowing more robust conclusions to be drawn than are possible from single monitoring events.

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 public funding available for conservation in Minnesota has given landscape-scale ecological restoration projects the long term stability to make a true and lasting impact. But lack of funds and/or a timing mismatch for monitoring efforts has limited the ability of land managers fully assess the impact of their management on ecosystems, a necessary component of adaptive management. Providing insight into the impact of ongoing restoration and enhancement work on plant and wildlife communities will improve the effectiveness of those management programs and increase the impact of millions of dollars of future conservation projects.

Activities and Milestones

Activity 1: Community-level monitoring of plants, insects, birds, and reptiles at multiple sites in Southeast Minnesota.

Activity Budget: $498,000

Activity Description:
Monitoring coordinator will select monitoring sites, schedule field work, and coordinate with other experts on the individual taxa being monitored. This will include: reviewing site management histories and plans to capture a variety of management strategies and intended future work, coordinating schedules with species experts, and setting and managing the project schedule to maximize data collected in each field season. Monitoring coordinator will work with taxa experts to collect data over two and a half field seasons, with the first half season being used to calibrate the number of plots needed at each site. After each field season, coordinator will analyze field data and complete a report documenting the methods and findings. At project conclusion, a general report will be prepared and shared with project stakeholders and the conservation community to communicate results and lessons from the project.

Activity Milestones:

Description	Completion Date
Protocol testing and site variability assessments	October 31, 2023
Partner and stakeholder meetings to plan and coordinate monitoring protocols and sites	February 28, 2024
Field sites selected and surveys scheduled for first season	February 28, 2024
First full monitoring season completed. Data organized and shared.	October 31, 2024
Summary results from first field season available	December 31, 2024
Second monitoring season completed. Data organized and shared.	October 31, 2025
Summary results from second field season available.	December 31, 2025
Final reports published. Data organized for archiving and shared with partners.	June 30, 2026
Presentations and workshops with stakeholders and land managers to share results.	June 30, 2026

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Kristin Hall	Minnesota DNR	MN Wildlife Action Plan Coordinator; coordinating DNR's involvement in the monitoring work.	Yes

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 of this project will immediately help guide restoration and enhancement work being conducted in Southeast MN. Restoration and enhancement work is currently funded by Outdoor Heritage Funds and Competitive State Wildlife Grant funds, but future funding could also include other public and private grants.

The results would also provide a baseline for future monitoring efforts conducted by the DNR, possibly funded through federal level grants. Additionally, future ENRTF money may be sought to help fund subsequent monitoring periods usable in a BACI framework, which will use the data collected through this award as a baseline.

Project Manager and Organization Qualifications

Project Manager Name: David Ruff

Job Title: Conservation Project Manager

Provide description of the project manager's qualifications to manage the proposed project.
David Ruff has been managing The Nature Conservancy's work in Southeast MN since 2015. In that time, he has worked with landscape partners to develop Landscape Stewardship Plans for the Zumbro and Cannon River Watersheds using ENRTF funding. He has managed several protection, restoration, and enhancement projects funded through the Lessard-Sams Outdoor Heritage Fund. He serves as the vice-chair of the Southeast Landscape Committee of the Minnesota Forests Resources Council, and participates in several other landscape-level partnerships and technical advisory groups. He has significant experience working with public funds and completing complex projects within expected timelines.

Organization: The Nature Conservancy

Organization Description:
Founded in 1951, the Nature Conservancy is a global conservation organization dedicated to conserving the lands and waters on which all life depends. Guided by science, we create innovative, on-the-ground solutions to our world's toughest challenges so that nature and people can thrive together. We are tackling climate change, conserving lands, waters and oceans at unprecedented scale, providing food and water sustainably and helping make cities more sustainable. One of our core values is our commitment to diversity. Therefore, we strive for a globally diverse and culturally competent workforce. Working in 72 countries and in all 50 United States, we use a collaborative approach that engages local communities, governments, the private sector, and other partners. Since 1958, The Nature Conservancy has helped protect more than 650,000 acres of forests, prairies, rivers, lakes and wetlands in Minnesota. In Southeast Minnesota, The Nature Conservancy has been a leader in protecting and restoring habitat, as well as planning and coordination with diverse stakeholder groups to maximize effectiveness of conservation in Minnesota's Blufflands region.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	$ Amount
Personnel								
Project manager/monitoring coordinator		Monitoring coordinator will be responsible for working with required partners and taxa experts, organizing field seasons, and collecting, organizing, and reporting on data. Also includes project management time for Monitoring Coordinator supervision and grant management.			31%	3.3		$283,500
							Sub Total	**$283,500**
Contracts and Services								
Contracted taxa experts/surveyors	Professional or Technical Service Contract	Provide expertise on individual taxa being monitored, including monitoring fieldwork either independently or working with monitoring coordinator.				0.75		$70,000
DNR Species/Taxa Experts	Professional or Technical Service Contract	DNR experts will advise on survey protocols and timing, and assist with fieldwork.				0.75		$116,000
							Sub Total	**$186,000**
Equipment, Tools, and Supplies								
	Tools and Supplies	Tablet, computer, and other fieldwork supplies	Tools for capturing, organizing, analyzing, and sharing field data	X				$7,000
							Sub Total	**$7,000**
Capital Expenditures								
							Sub Total	**-**
Acquisitions and Stewardship								
							Sub Total	**-**
Travel In Minnesota								

	Miles/ Meals/ Lodging	Mileage, meals, lodging, and other travel costs for the monitoring coordinator to travel to field sites throughout the grant- approximately 30,000 miles.	Monitoring coordinator will need to travel to field sites to conduct field work frequently throughout the project.					$21,000
							Sub Total	**$21,000**
Travel Outside Minnesota								
							Sub Total	**-**
Printing and Publication								
	Printing	Final report	Share results of monitoring, including implications for management moving forward.					$500
							Sub Total	**$500**
Other Expenses								
							Sub Total	**-**
							Grand Total	**$498,000**

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Equipment, Tools, and Supplies		Tablet, computer, and other fieldwork supplies	A tablet will be used to collect data in the field. A computer will be necessary for the Monitoring Coordinator to work effectively, organize and analyze data, and write reports to share learnings from the monitoring. a data plan may be needed for connectivity in the field.

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	**-**
Non-State				
In-Kind	State Wildlife Grant	MN DNR Biometrician will contribute time to the project to help with protocol and study design.	Secured	$30,000
			Non State Sub Total	**$30,000**
			Funds Total	**$30,000**

Attachments

Required Attachments

Visual Component

File: 27d615e2-68d.pdf

Alternate Text for Visual Component

Map showing location and amount of restored and enhanced bluff prairies in Southeast MN, with pictures of two common management techniques: prescribed fire and goat grazing. Text explains how this proposal would give insight into the effectiveness of different management techniques and lay groundwork for future studies....

Financial Capacity

File: c4777c29-e52.pdf

Board Resolution or Letter

Title	File
TNC Authorization Letter	5a12cb2d-34b.docx

Optional Attachments

Support Letter or Other

Title	File
Audited Financial Statements for FY21	08598af1-392.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Does your project have potential for royalties, copyrights, patents, or sale of products and assets?

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?

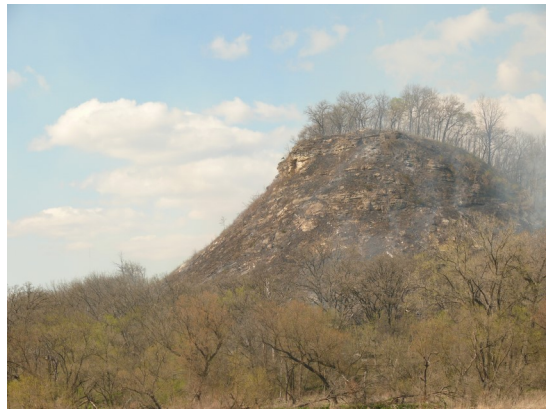
No

Does the organization have a fiscal agent for this project?

No

Community Response Monitoring for Adaptive Management

Restoration and management of bluff prairies has been a major focus of conservation efforts in Southeast MN. This proposal will use the wide range of site conditions and known management histories of past projects to gain insights into the effectiveness and limitations of different management strategies, while laying groundwork for more robust study designs in the future.



Example study design with multiple treatment types and control sites.