



Environment and Natural Resources Trust Fund

2024 Request for Proposal

General Information

Proposal ID: 2024-160

Proposal Title: Natural Resources Inventory/Analysis for Restoration and Resilience

Project Manager Information

Name: Steven Van Natta

Organization: U of MN - Landscape Arboretum

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Project Basic Information

Project Summary: UMLA will conduct a comprehensive floristic inventory and assessment to understand and identify resiliency, community changes, and restoration priorities across UMLA's natural communities.

Funds Requested: \$63,000

Proposed Project Completion: June 30, 2026

LCCMR Funding Category: Small Projects (H)

Secondary 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): Metro

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

Region(s): Metro

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.

Many plant communities within suburban areas are often degraded, contain low biodiversity, and are in need of active restoration. The UMLA provides a unique opportunity for this effort because it is an iconic landscape at the junction of three biomes in the urban and exurban fringe and has demonstrated many pioneering restorations. However, before restoration efforts can occur, a comprehensive management plan is necessary to combat future climate change, conservation of critical habitat, and prioritizing restoration projects to maximize time and resources. A Natural Resource Inventory and Analysis Report on UMLA plant communities was created through the Metro Greenway Grant Program in 2002. Since this inventory was done over 20 years ago, we are lacking updated relevant foundational data to accurately guide adaptive management and restoration decisions at UMLA.

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.

This project will assess 665 acres of forest, grassland and wetland plant communities within the UMLA to develop a new management plan with an updated floristic inventory and assessment of plant communities, management needs, and future restoration priorities. This funding would serve as phase two of the comprehensive management plan development through a new resource inventory and analysis report completed by Midwest Natural Resources. The proposed inventory and assessment will be compared with the previously collected data from the 2002 inventory to analyze changes in plant communities over time, resilience, and effectiveness of restorations in a changing climate. This updated inventory will also provide a new baseline of robustly collected data and information that will serve as a reference for subsequent inventory and assessment efforts. Funding for this inventory in phase two will allow UMLA to achieve science driven guidance towards restoration efforts in phase three.

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 analyze the plant community changes and identify which sites are most resilient in an effort to enhance restoration in a changing climate. The inventory and analysis report will provide the data driven approach to efficient and effective allocation of resources and priorities to preserve and enhance these critical habitats. Higher quality restoration projects will be an important future outcome from this completed inventory, which would increase biodiversity, water quality, and ecosystem function within the metro area. Additionally, UMLA's iconic landscape provides public access, interpretation, and education for responsible stewardship to the region.

Activities and Milestones

Activity 1: Data Inventory and Desktop Analysis

Activity Budget: \$8,507

Activity Description:

UMLA natural resources horticulturists will collaborate with Midwest Natural Resources (MNR; see attached proposal) to provide all data and materials regarding current management activities, goals for management and restoration, natural resource records, and aerial photos. MNR will update and delineate community boundaries within each management unit according to the Minnesota Landcover Classification System (MLCCS) using aerial photos prior to field surveys and will confirm or revise the boundaries and community types while in the field. Pre-mapping the communities increases their efficiency in the field, and provides additional necessary details for decision making and analysis.

Activity Milestones:

Description	Approximate Completion Date
Data inventory	March 31, 2025
Desktop delineation	April 30, 2025

Activity 2: Community Assessment and Field Surveys of Floral Resources

Activity Budget: \$40,836

Activity Description:

The field surveys conducted by MNR will consist of a community assessment and floristic inventory. Current conditions of each plant community will be assessed, while also documenting dominant vegetation, hydrologic features, potential wildlife habitat, and other resources. Invasive species and other disturbances and alterations will be mapped. A floristic inventory via meander survey will be implemented which is well suited for restoration planning. It will be conducted twice during the growing season to capture diversity in each management unit.

Activity Milestones:

Description	Approximate Completion Date
Early season floristic inventory	May 31, 2025
Community assessment	July 31, 2025
Later season floristic inventory	July 31, 2025

Activity 3: Inventory and Analysis Report

Activity Budget: \$13,657

Activity Description:

Floristic inventory data will be evaluated via a Floristic Quality Assessment (FQA) for all mapped polygons (see attached map) to provide a measure of community condition and quality. Each management unit will be described for community types, hydrologic features, potential wildlife habitat, current conditions, resilience, and restoration recommendations based on the comparative analysis. Maps and figures will also identify community delineations, invasive species, and other disturbances. Additional maps will portray desired or proposed future plant communities (compared to current communities) to guide future management and restoration efforts. This report will quantify and prioritize funding opportunities and efficient allocation of time and resources.

Activity Milestones:

Description	Approximate Completion Date
Draft report	November 30, 2025
Final report	December 31, 2025

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Annie Weeks	Midwest Natural Resources	Annie Weeks is the project manager/liaison, coordinating MNR's field efforts and analysis.	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?

Phase two of this project is part of a larger three-part effort to create a comprehensive management plan. Phase two implementation will provide critical foundational data needed for restoring and enhancing resilient communities in a changing climate, establish the groundwork for an ongoing monitoring protocol, and guide future restoration funding priorities and appropriate allocation of resources. Future funding may be sought for phase three and beyond to support future restoration and ongoing monitoring efforts. The comprehensive management plan will be used by UMLA staff, shared with other practitioners via conferences, and disseminated as a written report.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Preserving Minnesota's Native Orchids - Phase 2	M.L. 2018, Chp. 214, Art. 4, Sec. 2, Subd. 08h	\$259,000
Preserving Minnesota's Only Ball Cactus Population	M.L. 2021, First Special Session, Chp. 6, Art. 6, Sec. 2, Subd. 08d	\$103,000
Minnesota's Volunteer Rare Plant Conservation Corps	M.L. 2022, , Chp. 94, Art. , Sec. 2, Subd. 08a	\$859,000

Project Manager and Organization Qualifications

Project Manager Name: Steven Van Natta

Job Title: Horticulture Manager

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

Steve Van Natta is an ASHS Certified Professional Horticulturalist and GCSA Certified Golf Course Superintendent. Steve has worked at the UMLA for 10 years in a Horticulture Manager role, overseeing 60 staff members and hundreds of volunteers each year. He is an experienced Horticulturalist with a demonstrated history of working in the environmental services industry. Steve has successfully managed 15 Wetland and Upland Prairie Restorations projects in the Golf construction industry and MNLA natural resource areas. Skilled in IPM Pest Control, Environmental Awareness, Horticulture, Agronomy, Equipment Mechanics, Irrigation and Best Management Practices in Golf Course Maintenance. Strong professional with a Bachelor of Science (BS) focused in Horticulture from University of Wisconsin-River Falls, Master of Science (MS) focused in Horticulture from University of Minnesota.

Organization: U of MN - Landscape Arboretum

Organization Description:

The UMN Landscape Arboretum (UMLA), founded in 1958, is 1,200-acres of 28 gardens, 45 plant collections, and 18 model landscapes. Its 12.5 miles of garden paths and hiking trails, welcomes over 500,000 visitors annually. The UMLA mission: to welcome, inform and inspire all through outstanding displays, protected natural areas, horticultural research and education. Its vision: to be the premier northern landscape arboretum, welcoming all to enjoy, learn from and connect with nature.

Increased priority to restore and conserve biodiversity on the 665 acres of natural lands within the UMLA sparked the need to create a comprehensive natural resources management plan. It will be split into three phases. Phase one includes the inhouse work of researching and compiling land use history, landscape context and climate change impacts. Phase two includes an updated floristic inventory and analysis to establish goals for creating restoration strategy recommendations and prioritizing future investments on restoration work. Phase three will implement the prioritization and restoration work guided by phase two. A ULMA committee was formed to create the framework for phases one and two, do inhouse comparisons, and requested bids from three contractors for phase two. Midwest Natural Resources was selected as that contractor.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Project Investigator-Horticulture Manager/Project Manager (P&A)		Project Investigator-Horticulture Manager/Project Manager			36.8%	0.04		\$4,197
Wetlands Horticulturist/Civil Service		Wetlands Horticulturist/Civil Service			32%	0.1		\$7,042
Natural Resources Horticulturist/Civil Service		Natural Resources Horticulturist/Civil Service			32%	0.1		\$7,231
							Sub Total	\$18,470
Contracts and Services								
Midwest Natural Resources	Professional or Technical Service Contract	Conduct an updated floristic inventory and analysis to establish goals for creating restoration strategy recommendations and prioritizing future investments on restoration work				0		\$44,530
							Sub Total	\$44,530
Equipment, Tools, and Supplies								
							Sub Total	-
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								

							Sub Total	-
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
							Sub Total	-
							Grand Total	\$63,000

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	-

Attachments

Required Attachments

Visual Component

File: [ee7d7da8-495.pdf](#)

Alternate Text for Visual Component

UMN Landscape Arboretum Natural Resource MGMT Units...

Optional Attachments

Support Letter, Photos, Media, Other

Title	File
UMN SPA Authorization Ltr	29741f81-01d.pdf
UMLA/MLAF Support Letter	cf1e659f-9d4.pdf
MNR UMLA NR Inventory Mgmt Plan Proposal	d3a9a070-ec7.pdf
UMLA MLAF Audited Financials	7201dfb2-1eb.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

Does your project include the design, construction, or renovation of a building, trail, campground, or other capital asset costing \$10,000 or more?

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?

No

