Environment and Natural Resources Trust Fund

M.L. 2023 Draft Work Plan

General Information

ID Number: 2023-209

Staff Lead: Corrie Layfield

Date this document submitted to LCCMR: November 23, 2022

Project Title: Modernizing Minnesota's Wildlife (and Plant!) Action Plan

Project Budget: $889,000

Project Manager Information

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Project Reporting

Reporting Schedule: April 1 / October 1 of each year.

Project Completion: June 30, 2026

Final Report Due Date: August 14, 2026

Legal Information

Legal Citation:

Appropriation Language:

Appropriation End Date: June 30, 2026

Narrative

Project Summary: Updating the Species in Greatest Conservation Need list through surveys, standardized assessments, and including rare plants for the first time to create v.3.0 of Minnesota's Wildlife Action Plan

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

Minnesota's Wildlife Action Plan (MNWAP) is a ten-year guide to the conservation of Minnesota's rare and at-risk species. The MNWAP needs to be revised by 2025, with the input of state agencies, private landowners, sporting groups, and environmental organizations, to lay out conservation strategies and actions for the next ten years and sustain access to critical federal conservation funding.

Three primary issues will hinder the MNWAP revision if not addressed: 1) critical gaps in the species data that are the foundation of the MNWAP, 2) a lack of standardized methods to establish the State conservation status of animals and plants and 3) not including plants that wildlife rely on and are critical components of Minnesota's biodiversity. This proposal addresses these urgent needs in order to develop the most relevant and future facing plan possible.

In previous versions of the MNWAP, plants were not included because the federal funding available for plan implementation did not extend to plant conservation efforts. Federal legislation currently under consideration incentivizes states to include rare plant species and contains a provision specifically for plant conservation. Including plants will broaden our ability to implement conservation actions supporting our full natural heritage and ensure access to future funding.

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.

DNR's Nongame Wildlife Program will lead the MNWAP revision, and is requesting support for two tasks. First, information gaps for targeted species need to be filled, and second, a standardized process to assess species conservation status needs to be implemented and expanded to include rare plants. This proposal will address the expressed need through these activities:

1. Working with Minnesota Biological Survey (MBS) and others, we will conduct surveys and gather data to ensure that information for rare and at-risk species is up-to-date and well represented in conservation status assessments. This includes surveys for species where: current information is lacking, species that are difficult to detect by traditional means, and unique plants and habitat types associated with those species. This information will be used in our species list assessment process, Activity 2.

2. We will implement a standardized method, used nationwide, for assessing and ranking the conservation status of Species of Greatest Conservation Need (SGCN), including plants. This standardized process will help to improve transparency, repeatability, and integrity of our conservation status ranks. It will also modernize our ranking methods by including a threats assessment that integrates habitat change, up-to-date climate data, and other species-specific stressors.

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 produce foundational data and threats assessment information critical to developing and implementing a relevant and practical Minnesota Wildlife Action Plan, which has major influence on nongame wildlife management, conservation, and funding through 2035. This proposal will help natural resource managers to be precise, effective, and efficient in implementing conservation actions and guiding management decisions. It will help Minnesota with a v3.0 MNWAP that addresses a complete system of wildlife conservation, integrating plants and habitats. This project supports the sustained health of Minnesota's biodiversity.

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

Activities and Milestones

Activity 1: Survey targeted species to improve knowledge of status, distribution and conservation needs.

Activity Budget: $454,000

Activity Description:
Some species have been identified as needing additional surveys to better assess their status. We propose conducting surveys for:

•	Boreal owl nest and singing male reports have decreased substantially since the 1990s, suggesting a decline in Minnesota's population. Current, detailed, and comprehensive information is critical to understand population status; breeding ecology and habitat use. The University of MN – Duluth, Natural Resources Research Institute (NRRI) will conduct surveys, including using acoustic detectors, to collect the data for this remote species.

•	Rare forest salamanders have highly specific habitat requirements and a limited ability to recover once restricted in their range. Standard surveys are limited to about one month a year when salamanders breed. Adopting innovative survey techniques may greatly extend the survey window. We will use eDNA sampling (extracting DNA from the environment), proven effective for sampling secretive, low density amphibian species, to gain vital information on status and habitat use of four-toed and/or spotted salamanders.

•	Forest vernal pools are an under-studied and biodiversity-rich wetland-forest system which require specialized plant and animal surveys. This work will advance the much-needed basic classification and inventory of vernal pool types to inform v. 3.0 of the MNWAP and to assist future conservation efforts.

Activity Milestones:

Description	Approximate Completion Date
Boreal Owl- complete collaborative survey design phase and first field season	April 30, 2024
Boreal Owl survey work and analysis with NRRI is completed	July 31, 2025
Complete eDNA and traditional surveys for rare forest salamanders to detect presence	September 30, 2025
Complete surveys in forested vernal pool systems	September 30, 2025
Update survey data of under documented species within the Natural Heritage Inventory System (NHIS) database	October 31, 2025

Activity 2: Update conservation status and conduct threats assessment of plant and animal species to update the SGCN list and revise MNWAP

Activity Budget: $435,000

Activity Description:
The previous species ranking process relied heavily upon occurrence data and expert inputs. While the process was rigorous and credible, it was not repeatable or standardized. We will update our current SGCN list by applying a nationally-adopted species conservation assessment process to standardize our information with other states and make future updates more efficient. We will calculate and review species ranks for at least the 346 existing SGCN as well as species that previously lacked sufficient data for ranking. We will also expand the SGCN list to plants, considering at least the 417 vascular plant species that are currently classified as Endangered, Threatened, Special Concern or watch-listed.

Species conservation status assessments will be based on 5 factors: species range, area of occupancy, number of

occurrences, short-term population trend, and threats. The generated rankings will be reviewed by taxonomic experts.

To conduct this ranking process we will:
1. Format, synthesize and analyze existing data for standardized assessment process
2. Integrate current habitat, climate, and stressor information within the threats assessment
3. Run the species and ranking tool
4. Share outputs for expert review and revision
5. Project staff will finalize updated SGCN list and assist in the overall MNWAP revision

Activity Milestones:

Description	Approximate Completion Date
Synthesize and format existing plant and wildlife data for inputs into the species ranking tool	December 31, 2023
Generate the species inputs and conduct threats assessment to go into the S-rank tool	November 30, 2024
Use S-rank calculator on resulting formatted data to create update SGCN list	December 31, 2024
Convene taxonomic teams and review results of the S-ranking process	July 31, 2025
Publish updated SGCN list in approved MNWAP	December 31, 2025

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Alexis Grinde	University of MN - Duluth, Natural Resource Research Institute	NRRI will conduct the boreal owl survey portion of proposal, This collaboration will bring additional value to the project because it leverages NRRI's avian expertise and capacity that will provide updated species status information of boreal species foundational to the next ten years of the Minnesota Wildlife Action Plan.	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.
The revised and updated SCGN list will be published within the 2025 Minnesota Wildlife Action Plan. This plan is available in print form and as a digital download. Attribution language for ENTRF will be included on the inside of the front cover to the Plan. We also anticipate creating an interactive Minnesota Wildlife Action Plan webpage for version 3.0. Beyond Minnesota, Federally approved Wildlife Action Plans are posted in a national database hosted by USGS. Upon completion and approval of the 2025 Plan, Nongame Wildlife Program staff will host a series of in- person workshops and online webinars introducing stakeholders and partners to the approved product and promoting its use in their conservation planning efforts. The Environment and Natural Resources Trust Fund will be acknowledged during all associated outreach through use of the trust fund logo or attribution language on project print and electronic media, publications, signage, and other communications per the ENTRF 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 produce updated species status information foundational to the next ten years of the Minnesota Wildlife Action Plan. Long-term, the results of this project will be implemented through the conservation actions guided by the MNWAP and funded by a blend of federal and state resources currently dedicated to the conservation of Minnesota's Species in Greatest Conservation Need. We will be able to access increased federal funding, per pending federal legislation, by adding plants to our list of SGCN, thus increasing the capacity of our state to care for its highly valued natural heritage.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Nongame Wildlife Program Acceleration	M.L. 2018, Chp. 214, Art. 4, Sec. 2, Subd. 08a	$220,000
Nongame Wildlife Program Acceleration	M.L. 2019, First Special Session, Chp. 4, Art. 2, Sec. 2, Subd. 08e	$513,000

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	$ Amount
Personnel								
Data management and analysis (classified)		Format data inputs including: both archival and newly collected data, documenting species specific decisions and rules, and develop/implement GIS scripts for S Rank tool process		X	25%	1	X	$80,000
NR Specialist Senior -		Conduct rare species surveys, conduct plant data analysis for S Rank tool, v3.0 MNWAP plant coordination.			25%	2		$220,000
Taxonomic specialists		Consult on ranking process			25%	0.5		$50,000
Project Coordinator		Coordinate animal and plant project teams to complete surveys and S Ranking process. Compile reports, conduct partner coordination and integrate species list revision process with overall MNWAP update.			25%	2		$200,000
							Sub Total	**$550,000**
Contracts and Services								
U of MN - Duluth NRRI	Sub award	Boreal owl work: conduct surveys, including using acoustic detectors, to collect the data for this remote species.				-		$160,000
TBD	Professional or Technical Service Contract	Threats assessment work				0		$100,000
							Sub Total	**$260,000**
Equipment, Tools, and Supplies								
	Tools and Supplies	eDNA supplies	To collect and analyze environmental samples to determine species presence: total cost of site filtration kits plus expendables ($3000). Total cost of eDNA analysis (extraction and amplification) ($9000)					$12,000

								Sub Total	$12,000
Capital Expenditures									
								Sub Total	-
Acquisitions and Stewardship									
								Sub Total	-
Travel In Minnesota									
	Miles/ Meals/ Lodging	Estimate based on 20 overnight field days/ season = 40 days total: ($36/day meals = $1,440; $100/day lodging = $4,000; and 23,867 miles @ .625/mile = $14,917)	Conducting field surveys						$20,357
								Sub Total	$20,357
Travel Outside Minnesota									
								Sub Total	-
Printing and Publication									
								Sub Total	-
Other Expenses									
		DNR Direct and Necessary	Direct and necessary costs to cover HR support ($10,027), Safety Support ($2,020), Financial Support ($9,151), Communication Support ($1,811), IT Support ($22,609), and Planning Support ($1,020).	X					$46,643
								Sub Total	$46,643
								Grand Total	$889,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Personnel - Data management and analysis (classified)		Format data inputs including: both archival and newly collected data, documenting species specific decisions and rules, and develop/implement GIS scripts for S Rank tool process	Existing employees have unique skills and experience with the data used to achieve this work, their existing duties will be backfilled **Classified :** Any classified staff position paid for by ENRTF will either: 1) be backfilled with a new position OR 2) the work done by this position will be delayed, eliminated, or completed by the start of the project. The activities of all or portions of the classified staff are directly related to this proposal for data management in Activity 2. Due to extensive experience with MN DNR databases and Geographic Information System knowledge, this data manager brings specific knowledge and perspectives that will result in high quality results.
Other Expenses		DNR Direct and Necessary	These are costs associated with activities that are directly related to and necessary for accomplishing appropriated programs/projects.

Non ENRTF Funds

Category	Specific Source	Use	Status	$ Amount
State				
Cash	Nongame Wildlife Program Funds	covering zoological surveys, staff administrative and advisory costs	Secured	$50,000
Cash	Reinvest in Minnesota	Covering plant taxonomic expertise	Secured	$50,000
			State Sub Total	**$100,000**
Non-State				
Cash	Competitive State Wildlife Grant	Plan Enhancement	Secured	$200,000
Cash	State Wildlife Grants	MBS Surveyors	Secured	$155,000
			Non State Sub Total	**$355,000**
			Funds Total	**$455,000**

Attachments

Required Attachments
Visual Component

File: [baf651ad-6f0.pdf](baf651ad-6f0.pdf)

Alternate Text for Visual Component

The graphic depicts 6 steps in the proposal process swooping across the page from left to right: animal icons depict surveys, a computer icon depicts conducting the threats assessment, three additional icons depict data processing resulting in the updated list for v 3.0 of MNWAP, which guides wildlife conservation....

Optional Attachments
Support Letter or Other

Title	File
NRRI Letter of Support	[8dd8a6ea-511.pdf](8dd8a6ea-511.pdf)
required background check	[e6d16e1a-ae9.pdf](e6d16e1a-ae9.pdf)

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

The only change that was made to the content of the original proposal was the addition of the dissemination details and minor clean up on some grammatical errors. For the budget section, we had a minor change in the D&N calculation, a difference of 5$, which was balanced from the travel line so the overall budget is the same as the version recommended. Additional minor changes and additions were made as a result of LCCMR staff recommendations for revision.

Additional Acknowledgements and Conditions:

The following are acknowledgements and conditions beyond those already included in the above workplan:

Do you understand and acknowledge the ENRTF repayment requirements if the use of capital equipment changes?

N/A

Do you agree travel expenses must 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 agree to the Commissioner's Plan.

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?

Yes

Does the organization have a fiscal agent for this project?

No