



Environment and Natural Resources Trust Fund

M.L. 2023 Draft Work Plan

General Information

ID Number: 2023-006

Staff Lead: Corrie Layfield

Date this document submitted to LCCMR: March 7, 2023

Project Title: Minnesota Bee and Beneficial Species Habitat Enhancement II

Project Budget: \$876,000

Project Manager Information

Name: Sabin Adams

Organization: Pheasants Forever Inc

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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: This proposal seeks to enhance grassland habitats to benefit pollinators and other species on permanently protected lands. Research on enhanced sites will be conducted by the UofM.

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

Grassland habitat loss and fragmentation continue to be the major factor in the decline of monarchs, pollinators & grassland wildlife. In Minnesota, 99% of the original prairie has been converted. While we have restored hundreds of thousands of acres of grasslands over the last three decades, early restorations rarely considered or appreciated the needs of pollinators, the value of milkweed to monarchs, or vegetative structural & species diversity required by many species of grassland dependent wildlife now in decline. Private landowners, local, state and federal governments have invested significantly to protect grasslands and wetlands on private lands for the sake of water quality, wildlife, and quality of life in Minnesota. Completing restoration and enhancement activities on lands that increase species diversity of pollinators and grassland wildlife will maximize the public benefits of these prior investments. Furthermore, current understanding of grassland enhancement best management practices that increase diversity is somewhat limited. It is not known, for example, which methods provide the best increase in diversity to a low diversity stand of native grasses. The University of Minnesota (UofM) will conduct research on some of the enhanced sites to gain understanding of which enhancement techniques practices best increase diversity.

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 phase two proposal contributes to the recovery of monarch butterflies and native pollinators by enhancing 785-acres of permanently protected habitat in priority Minnesota landscapes. Enhancements will be designed to provide high-diversity native plantings for the benefit of native pollinators, especially the monarch butterfly. Further, we propose to monitor these enhancements in collaboration with the University of Minnesota in an effort to evaluate enhancements, inform practitioners of best practices and provide a path to future habitat enhancements for native pollinators across Minnesota's farmland region. Projects will be solicited, scored, and selected to maximize benefits to monarchs, pollinators and other grassland wildlife.

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 proposal seeks to increase the quantity and quality of diverse native grassland habitats for the benefit of pollinators and other wildlife. Additionally by monitoring these site post enhancement, a better understanding of best practices as well as pollinator usage can be attained.

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: Conduct project outreach, select projects for funding.

Activity Budget: \$27,721

Activity Description:

Pheasants Forever staff will engage with SWCDs and USFWS to assist in the development of quality pollinator habitat enhancement project proposals on RIM and USFWS easement lands. Development will include assessing the current plant community and soil conditions to determine which management practices will produce the highest quality pollinator habitat. Additionally PF will reach out to public land managers at various government agencies (Local, State and Federal) to gauge interest and provide opportunity to enhance habitat. An RFP for each project with information including, acreage, cost, match and overall score will be submitted for all projects. All eligible projects will be considered and compared based on score and funds available ensuring that the highest quality projects are funded. We anticipate selecting 20 sites/landowner projects to enhance a total of 785 acres for Activity 2.

Activity Milestones:

Description	Approximate Completion Date
Distribute RFP, including pollinator project requirements, eligibility, scoring, and information about project.	January 31, 2024
Review submitted projects. Award projects based on scoring and available funding.	March 31, 2024
If funds remain: Distribute RFP, including pollinator project requirements, eligibility, scoring, and information about project.	January 31, 2025
If funds remain: Review submitted projects. Award projects based on scoring and available funding.	March 31, 2025

Activity 2: Enhance habitat for pollinators and other wildlife.

Activity Budget: \$622,810

Activity Description:

Pheasants Forever's field staff will work with landowners/managers to implement management plans developed and selected in Activity 1 (approximately 20 sites/landowner projects for 785 acres). This could include assisting private landowners to do the work themselves and/or hiring a private contractor. Additionally, private landowners could enlist Pheasants Forever to hire a contractor utilizing their procurement policy. Estimated average cost to enhance low quality site to high quality pollinator habitat is \$1000/acre. Best management practices required by each agency holding protection of project sites will be utilized to enhance project sites (i.e. BWSR's Native Vegetation Establishment and Enhancement Guidelines on RIM easements). Grassland enhancement activities include, but not limited to, tree/brush removal, mowing, tillage, and chemical application to prep the site, planting regionally appropriate high-diversity seed mixes, and maintenance mowing to control invasive species. Sites will be visited by PF, SWCD, or USFWS staff approximately 1-2 times for 2 years to evaluate the progress and determine if additional mowing is needed. Additionally, some sites selected in cooperation with the owner/manager, will have certain variables manipulated by the U of M research staff to monitor the effects on pollinator species as well as establishment practices.

Activity Milestones:

Description	Approximate Completion Date
Work with landowners, and partners to contract all enhancement activities	September 30, 2025
Work with each projects owner/manager to complete enhancement work.	June 30, 2026
Conduct post-construction site visits to assess future mainience needs.	June 30, 2026

Activity 3: Assess, monitor, and report results of enhancement activities.

Activity Budget: \$225,469

Activity Description:

The objectives of this research are to (1) determine whether seeding method (drill vs broadcast) and time of seeding (spring vs fall) influence floral abundance and diversity, and (2) invasive plant cover in Minnesota restorations designed for pollinators. Objective 1 is focused on real-world restorations that have already been seeded (on 20 of the enhancement projects from Activity 2). Objective 2 will be a controlled, fully-factorial experiment to focus on the effect of planting method on native plants, invasive plants and blooming forbs. We will test this using (1) existing restoration sites that varied in their seeding method and time of seeding; and (2) experimentally applying seeding method, time of seeding, and their interaction in a fully factorial randomized complete block design on an additional 3 sites (We plan to secure future funding to maintain long term surveys on these plots). Generalized linear models will be used to analyze data collected for both objectives. Research will be done under the direction of Dr. Daniel P. Cariveau at the UofM and will work with Pheasants Forever to gain landowner permission and cooperation to conduct research and maintain research protocol.

Activity Milestones:

Description	Approximate Completion Date
Site selection for existing restoration	December 31, 2023
Surveys of existing restorations	September 30, 2025
Establish and collect data on experimental plots	September 30, 2025
Data summaries and analysis. Preparation of publications and final report writing.	June 30, 2026

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Dan Cariveau	University of Minnesota	The University of Minnesota will be doing research on the grassland restoration projects that Pheasants Forever completes.	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.

In general, all publications, signs, and public communications will include either the trust fund logo or will include language indicating financial support. Activities 1 & 2: Pheasants Forever will work with SWCD's and USFWS to identify easements that may benefit from enhancement activities. Owners of these easements will be contacted to participate. Activity 3: Research results and data will be provided by the UofM upon completion of the project.

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?

Enhancement of grassland habitats will yield pollinator habitat results after the completion of the project for 785 acres. Further enhancement provides an opportunity to plan for future management activities to maintain quality habitat on projects. Management activities will be implemented and funded by the owners of the properties and/or government agencies holding conservation easements. By working with easement landowners, this project will increase the awareness and ability to work with government and non-government organization (NGO) partners to make their easement as productive as possible for conserving our natural resources. Results of research provided by the UofM will be available.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Pheasants Forever Field Staff		Work with land owners/managers to complete enhancement projects.			22%	0.99		\$64,684
Pheasants Forever Grant Administration		Complete necessary budgeting, reporting and overall coordination of grant requirements.			22%	0.3		\$27,722
							Sub Total	\$92,406
Contracts and Services								
TBD Private Contractors or Landowner Reimbursement	Professional or Technical Service Contract	Field work such as plowing, disking, spraying, seeding, mowing and other necessary practices to enhance grassland pollinator habitat will be completed. Private contractors may be hired by PF or LO. LO reimbursement rates will be set to match rates provided by USDA and/or BWSR.				0		\$554,430
University of Minnesota	Sub award	The UMN will be monitoring enhancement projects per Activity 3: Faculty \$10,329, Graduate Student \$125,676, Technicians (2 Field 1 Undergrad Research Assistant @ \$15/hr): \$64,738, Travel (Vehicle Rental, Lodging, Per Diem, Mileage @ \$0.19/mi): \$24,225, Supplies: \$500.				0		\$225,468
							Sub Total	\$779,898
Equipment, Tools, and Supplies								
							Sub Total	-
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								

							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	Travel budget includes reimbursement for estimated mileage to projects throughout the proposal area. We utilize the IRS Federal Reimbursement Rate which is currently at 62.5 cents/mile.	PF Field staff will travel to an estimated 20 project locations to assist development of enhancement plan. We anticipate visiting the sites pre enhancement, and twice post enhancement (once per year); however the number of visits and sites visited may vary depending on assistance from SWCD, USFWS, or other agency partner staff.					\$3,696
							Sub Total	\$3,696
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
							Sub Total	-
							Grand Total	\$876,000

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				
Cash	Federal	Partners will be engaged at many levels to provide additional value to these efforts.	Potential	\$100,000
			Non State Sub Total	\$100,000
			Funds Total	\$100,000

Acquisition and Restoration

Parcel List

Name	County	Site Significance	Activity	Acres	Miles	Estimated Cost	Type of Landowner	Easement or Title Holder	Status of Work
TBD	Statewide	Permanently protected conservation lands will have grassland habitats enhanced to provide benefits to pollinators and other wildlife.	Restoration	785	-	\$554,430	Private	BWSR, USFWS, MN DNR, County, City.	Has Not Begun
Totals				785	0	\$554,430			

Restoration

1. Provide a statement confirming that all restoration activities completed with these funds will occur on land permanently protected by a conservation easement or public ownership.

All restoration activities will be completed on lands protected by conservation easements, typically RIM or USFWS or on lands in public ownership typically WMA's and WPA's.

2. Summarize the components and expected outcomes of restoration and management plans for the parcels to be restored by your organization, how these plans are kept on file by your organization, and overall strategies for long-term plan implementation.

Pheasants Forever will work with land owner/managers to complete restoration and management plans in accordance with state statute. These plans will likely be housed by both Pheasants Forever and the agency that owns the land or easement on the land. Long term implementation of these plans will be the responsibility of the owner/manager of the property.

3. Describe how restoration efforts will utilize and follow the Board of Soil and Water Resources "Native Vegetation Establishment and Enhancement Guidelines" in order to ensure ecological integrity and pollinator enhancement.

These restoration efforts will follow BWSRs "Native Vegetation Establishment and Enhancement Guidelines" as well as best practices established by MN DNR and USFWS to ensure ecological integrity and pollinator enhancement.

4. Describe how the long-term maintenance and management needs of the parcel being restored with these funds will be met and financed into the future.

Long-term maintenance and management of these site will be the responsibility of the owner/land manager. We hope to use this opportunity to work with the owners/managers to develop a management plan. Additionally one of our ranking criteria will be the implementation of a management plan. Therefore proposal that will manage the investment into the future are more likely to be funded.

5. Describe how consideration will be given to contracting with Conservation Corps of Minnesota for any restoration activities.

We will notify the Conservation Corps of Minnesota if we are funded and make them aware of the restoration activities we are completing.

6. Provide a statement indicating that evaluations will be completed on parcels where activities were implemented both 1) initially after activity completion and 2) three years later as a follow-up. Evaluations should analyze improvements to the parcel and whether goals have been met, identify any problems with the implementation, and identify any findings that can be used to improve implementation of future restoration efforts at the site or elsewhere.

Evaluation will be completed on parcel where activities were implemented both initially after activity completion and three years later.

Attachments

Required Attachments

Map

File: [98d74a72-018.pdf](#)

Alternate Text for Map

Map depicts the counties of Minnesota the proposal prioritizes as well as the USFWS and BWSR easements where the majority of these projects will be completed....

Financial Capacity

File: [188415ca-712.pdf](#)

Board Resolution or Letter

Title	File
PF CEO approval letter	93e3e726-a86.pdf

Optional Attachments

Support Letter or Other

Title	File
Background Check Certification Form - SA Signed	12a00da3-e45.pdf
Approved Research Addendum	1e51a2a2-0aa.pdf

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

We have made changes per the requested revisions and have noted any comments.

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