Environment and Natural Resources Trust Fund
2020 Request for Proposals (RFP)

Project Title: **ENRTF ID: 230-F**

Documenting Species Response to Prairie Habitat Management

Category: F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat

Sub-Category:

Total Project Budget: $ 599,522

Proposed Project Time Period for the Funding Requested: June 30, 2025 (5 yrs)

Summary:

Conservation Focus Area project prioritizing effectiveness monitoring of bird and pollinator species to four defined prairie management actions. Results will help inform and guide future prairie habitat management efforts.

Name: Kristin Hall

Sponsoring Organization: MN DNR

Job Title:

Department: Ecological and Water Resources

Address: 500 Lafayette Rd.

St. Paul MN 55155

Telephone Number: (651) 259-5444

Email kristin.hall@state.mn.us

Web Address: https://www.dnr.state.mn.us/mnwap/index.html

Location:

Region: Southwest, Southeast

County Name: Fillmore, Houston, Lincoln, Mower, Murray, Nobles, Olmsted, Pipestone, Rock, Wabasha, Winona

City / Township:

Alternate Text for Visual:

Graphic includes a photo panel across the top showing enhanced prairie habitat and goat grazing in action along with a state map, highlighting the southeast and southwestern Conservation Focus Areas.

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ TOTAL	_____%

PROJECT TITLE: Documenting Species Response to Prairie Habitat Management

I. PROJECT STATEMENT

This project seeks to fill a gap in our understanding of how successful our conservation actions are at conserving habitat for Species in Greatest Conservation Need (SGCN). Long-term trend and status monitoring is well established by efforts such as the Minnesota Biological Survey and Breeding Bird Surveys. Yet effectiveness monitoring—documenting species responses to specifically defined conservation actions—is rare. By monitoring effectiveness of site level conservation management actions, this proposal seeks to inform adaptive management and better identify the gradient of success in our prairie conservation efforts.

We propose monitoring the responses of birds, plants and pollinators to four defined conservation management actions: prairie enhancement (converting low quality grassland to prairie), grazing only, burning only, and a combination of grazing and burning. Prairie management actions were selected because prairie conservation is prioritized in both the Minnesota Prairie Conservation Plan (2nd edition, 2015) and the Minnesota Wildlife Action Plan (MNWAP, 2015). We request a five year timeframe to allow sufficient time to detect species responses throughout various stages of management. This project will take place in three Conservation Focus Areas (CFA) identified within the MNWAP (Figure 1). CFAs are geographic areas prioritized for a partnership approach to implementing on-the-ground conservation efforts.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1 Title: Project Coordination and Implementation of Defined Conservation Actions

Description: The coordinator will oversee this project including conducting meetings, managing contracts, collaborating with internal and external partners, tracking progress and expenses, compiling data and submitting reports. Regional Nongame Wildlife Program and other MNWAP staff, will also work on this project by assisting with site selection, providing SGCN technical assistance, developing survey designs and coordinating field staff. Conservation activities in each CFA will be as follows:

Prairie Coteau CFA Objective: Provide technical assistance in conducting prairie enhancements to increase abundance or frequency of occurrence of pollinators and birds. The Prairie Coteau has approximately 1.3% of native prairie remaining and although there is active prairie habitat management occurring on prairie remnants, there is a need to create more prairie habitat in this highly fragmented landscape. We will be an advising partner on currently funded (OHF) prairie enhancement projects for at least 3 parcels (ranging from 5- 50 acres each - or up to 200 acres total).

Whitewater Valley and Root River CFA Objective: Implement bluff prairie restoration techniques for increasing abundance or frequency of occurrence of pollinators and birds. Goat grazing is an innovate technique that shows promise for controlling brush on bluff prairies, but there is little information demonstrating benefits for wildlife or showing how to maximize its effectiveness. We propose implementing a combination of conservation goat grazing and prescribed burns on at least 6 sites (approximately 90 acres) within the Root River and Whitewater Valley CFAs.

ENTRF Budget: $250,000

Outcome	Completion Date
1. Select management sites and compile management histories for each site	*2020-2022*
2. Collect habitat attribute information at each site before management	*2020-2022*
2. Conduct conservation actions on selected sites	*2020-2024*

Activity 2 Title: Data Management and Monitoring SGCN Response to Conservation Management Actions
Description: We will monitor responses of SGCN pollinators and birds to the habitat management actions outlined in Activity 1, in the Prairie Coteau, Root River and Whitewater Valley CFAs. We will monitor sites in each of the following four treatments: prairie enhancement, grazing only, burning only, and a combination of grazing and burning. We will collect pollinator and bird abundance or occurrence data for five years at each site. Management practices usually require two to three years to be fully implemented. In addition, habitat attributes (plant species composition and structure) will be measured at least twice in each site to account for site differences and evaluate the effectiveness of our habitat enhancement efforts. This effort will establish baseline data for future evaluations of longer-term responses. We will document how pollinator, bird, and habitat responses change through time for a given treatment and how they compare between treatments. Information gathered from this monitoring effort will be shared with prairie conservation partners. Results and recommendations will be used to guide the adaptive management process aimed at improving upon and advancing prairie conservation management techniques going forward.

For data management, we will work to integrate the CFA data from this project into existing databases or, if needed, create an independent data management system. Data management for this project requires a spatially integrated system that can be updated with management practices and associated monitoring activities.

ENRTF BUDGET: $ 327,000

Outcome	Completion Date
1. Review and select comprehensive monitoring protocols for plants, birds and pollinators	*2020*
2. Develop an integrated data structure for CFA programmatic needs	*2020*
3. Conduct prairie conservation management response monitoring surveys	*2020-2024*
4. Compile, analyze and report on effectiveness monitoring data and develop adaptive management recommendations as needed	*2025*

III. PROJECT PARTNERS AND COLLABORATORS:
Conservation Focus Areas are based on a commitment by partners to identify and accomplish agreed upon SMART (Specific, Measureable, Attainable, Relevant, Time-Oriented) objectives for a specified area. This proposal was developed in the context of the CFA partnership and is intended to take place on permanently protected lands and will be implemented by the MN DNR and/or contracted entities.

IV. LONG-TERM IMPLEMENTATION AND FUNDING: This proposal is building off of the results of work conducted to initiate the CFA program funded by a combination of State Wildlife Grants, Nongame Wildlife Funds and ENTRF funds. This proposal is a defined project as part of the larger CFA effort. CFAs are one tool for implementing some of the goals within the Minnesota State Wildlife Action Plan, which is an effort that will continue to be funded by a combination of donations, as well as state and federal funding opportunities aimed at supporting nongame fish, wildlife and their habitats.

V. SEE ADDITIONAL PROPOSAL COMPONENTS:

A. Proposal Budget Spreadsheet Included
B. Visual Component or Map Included - Figure 1
C. through H. N/A

Attachment A: Project Budget Spreadsheet
Environment and Natural Resources Trust Fund
M.L. 2020 Budget Spreadsheet
Legal Citation:
Project Manager: Kristin A. L. Hall
Project Title: Documenting Species Response to Prairie Habitat Management
Organization: MN DNR
Project Budget: 599,522
Project Length and Completion Date: 5 years, June 30 20205
Today's Date: 10 April 2019

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Budget	Amount Spent	Balance
BUDGET ITEM			
Personnel (Wages and Benefits)	$ -	$ -	$ -
Project Coordinator: 1.4 FTE total or .28 FTE annually for 5 years, unclassified position (70% salary, 30% benefits)	$ 100,000		$ 100,000
Nongame and monitoring staff: 1 FTE total or .20 FTE annually over 5 years, unclassified position(s) (70% salary, 30% benefits)	$ 100,000		$ 100,000
Professional/Technical/Service Contracts			$ -
Bluff Prairie enhancement contracted services (estimated $2,200/ ac (90 acers))	$ 200,000	$ -	$ 200,000
Plant Monitoring - 24 sites, ~3 transects each, monitored 2x over duration of 5 years ($350/ day*72*2)	$ 50,200		$ 50,200
Bird Monitoring - (200 point counts *1 visit * $50/point *5 years)	$ 50,000		$ 50,000
Pollinator Monitoring - (24 sites * 4 visits * 2 hrs. * $80/hr. * 5 yrs.)	$ 76,800		$ 76,800
Equipment/Tools/Supplies			$ -
	$ -	$ -	$ -
Capital Expenditures Over $5,000			
	$ -	$ -	$ -
Fee Title Acquisition			
	$ -	$ -	$ -
Easement Acquisition			
	$ -	$ -	$ -
Professional Services for Acquisition			
	$ -	$ -	$ -
Printing			
	$ -	$ -	$ -
Travel expenses in Minnesota			
	$ -	$ -	$ -
Direct and Necessary: DNR's Direct and necessary costs pay for activities that are directly related and necessary for accomplishing appropriated projects. HR support ($3,678), Safety Support ($666), Financial Support ($6,903), Communications Support ($1,388), IT support ($8,749), and Planning Support ($1,138)	$ 22,522		$ 22,522
	$ -	$ -	$ -
COLUMN TOTAL	$ 599,522	$ -	$ 599,522

SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT	Status (secured or pending)	Budget	Spent	Balance
Non-State:		$ -	$ -	$ -
State: OHF funds for habitat management - this project will conduct the response monitoring	secured	$ 204,000	$ -	$ 204,000
In kind: Region 3 Wildlife Specialist ($21,780), Ecologist/GIS specialist ($15,900), Region4 Wildlife Specialist ($12,900), Wildlife Biometrician ($3,680), Pollinator Research Scientist ($4,600), Plant Ecologist ($4,500)	secured	$ 63,360	$ -	$ 63,360

Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS	Amount legally obligated but not yet spent	Budget	Spent	Balance
Nongame Wildlife Program Acceleration M.L. 2018, Chp. 214, Art. 4, Sec. 02, Subd. 08a - 2018-2020 (as of March 2019)		$ 220,000	$ 61,910	$ 158,090

Documenting Species Response to Prairie Habitat Management

This project will take place in three Conservation Focus Areas (see map) and prioritizes monitoring the response of bird and pollinator species to four prairie management actions: goat grazing, prescribed burns, combination graze & burn, and grass to prairie conversion. Results of this work will help inform and guide future prairie habitat management efforts.

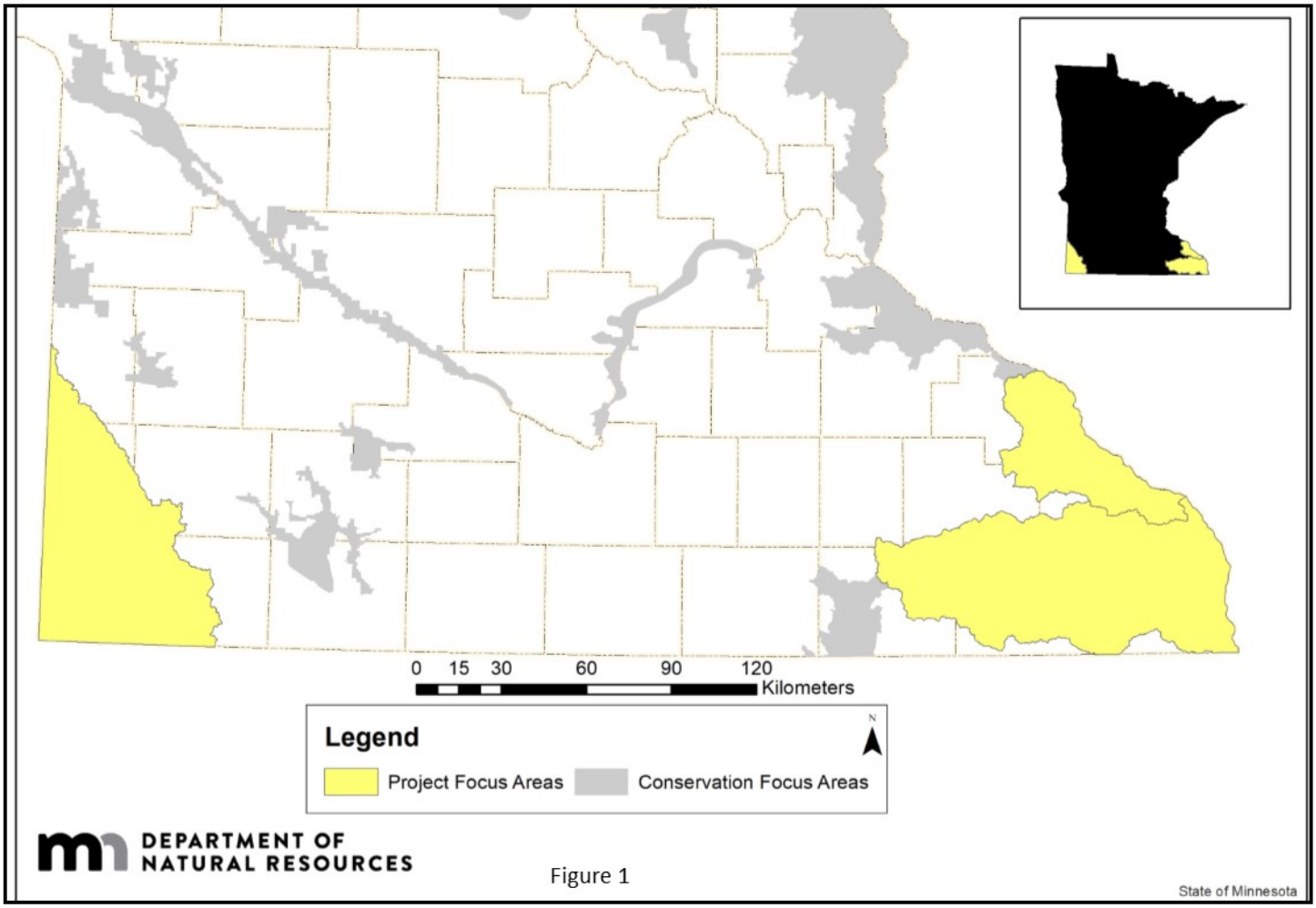

Figure 1

Organizational Description: MN DNR EWR

Ecological and Water Resources is one of seven divisions within the Minnesota Department of Natural Resources. Programs in this division are organized into four sections, this proposal is from the Ecosystem Management and Protection- Nongame Program, whose vision is to provide healthy lands and waters throughout Minnesota.

Project Manager Qualifications:

Kristin Hall is the Conservation Focus Area Coordinator for the Minnesota Department of Natural Resources, Ecological and Water Resources Division, Nongame program. Kristin received her B.S. in Wildlife Biology from the University of Montana in 1996 and her M.S. in Conservation Biology and Sustainable Development from the University of Wisconsin-Madison in 2005. She has worked in the field of conservation biology for over 20 years. She served as the Conservation and Important Bird Area Program Manager at Audubon MN from 2014 – 2018 and is currently coordinating the implementation of Conservation Focus Areas as defined by the Minnesota State Wildlife Action Plan.