

Lessard-Sams Outdoor Heritage Council

Fiscal Year 2021 / ML 2020 Request for Funding

FRE 01



Date: May 31, 2019

Program or Project Title: DNR Forest Habitat Enhancement

Funds Requested: \$7,759,900

Manager's Name: Bryan Lueth

Title: Wildlife Habitat Program Manager

Organization: MN DNR

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County Locations: Aitkin, Carlton, Cook, Crow Wing, Itasca, Koochiching, Lake, Pine, and St. Louis.

Eco regions in which work will take place:

- Northern Forest

Activity types:

- Restore
- Enhance

Priority resources addressed by activity:

- Wetlands
- Forest
- Habitat

Abstract:

Minnesota's iconic northern forest habitats, along with their interlaced wetlands and brushlands, are in need of management for the future due to stressors such as invasive species and climate change. This request will enhance and restore up to 12,500 acres of habitat in the Northern Forest Region on WMAs, AMAs, State Forests, and SNAs to increase forest health and resilience, and ultimately wildlife populations, through activities of a roving crew over five years. DNR's Conservation Agenda, and Wildlife Action, Forest Action, SNA Strategic Land Protection and SFRMP Plans, will guide operations to ensure strategic, targeted work.

Design and scope of work:

Northern Minnesota's forest habitats include towering pines, dense aspen, spruce bogs, and oak with broad arching branches, with rivers, lakes, sedge meadows, and brushlands intermixed. These habitats are home to a wide array of wildlife, including species in greatest conservation need such as moose, sharp-tailed grouse, American woodcock, and the black-throated blue warbler. They also provide clean water, outdoor recreation and products, sequester carbon, and support local communities. However, our forests face increasing stress from invasive species, climate change, lack of management, conversion, and fragmentation. If we are to address these stressors, and sustain the health of forest habitats on state lands which DNR is entrusted to steward for Minnesota citizens and the multiple benefits they provide, we must begin now to support management activities that are above and beyond normal timber harvest. For example, timber harvest can create a wildlife opening, however other management such as periodic mowing is needed to maintain it.

This request seeks funding to enhance and restore up to 12,500 acres of habitat over five years on WMAs, AMAs, State Forests, and SNAs in the Northern Forest Region. Strategic and targeted work will be accomplished through the added capacity of a roving habitat crew modeled after the successful crews in the remainder of Minnesota. The crew will conduct activities which support healthy, diverse and resilient habitats, allowing the habitats to better withstand stressors, and address the need to complete small or unique projects for which vendors are lacking. Activities may include invasive species control; firebreak development and maintenance, and prescribed burns in fire-dependent forests, brushlands and wetlands which have lacked management; wildlife opening maintenance;

tree removal, girdling, brush mowing/shearing, and support of conservation grazing in openland and brushland habitats; tree planting and protection to reforest and restore habitats, add conifer to the landscape, provide thermal cover, diversify forests, and address ash stand management; tree release, such as enhancing oak management for mast production; forest regeneration site prep; seed and acorn collection; restoration site prep; broadcasting and drilling of seed; stream bank stabilization; ditch closure; and dike removal to enhance forest wetlands. A majority of the projects will occur on State Forests and WMAs which are all open to public access for a wide range of outdoor recreational activities including hunting.

Enhancement and restoration activities will be guided by DNR's Conservation Agenda, Wildlife Action Plan, Forest Action Plan, SNA Strategic Land Protection Plan, and Section Forest Resource Management Plans. A DNR team of Fish and Wildlife, Forestry, and Ecological and Water Resources staff will request projects that meet plan and program priorities from state land managers, prioritize and select projects, develop a schedule, annually evaluate accomplishments and the budget, adapt, and seek additional projects as needed. The Ruffed Grouse Society will provide financial support of \$25,000 over the five year period.

Which sections of the Minnesota Statewide Conservation and Preservation Plan are applicable to this project:

- H5 Restore land, wetlands and wetland-associated watersheds
- LU10 Support and expand sustainable practices on working forested lands

Which other plans are addressed in this proposal:

- Minnesota's Wildlife Action Plan 2015-2025
- DNR Forest Action Plan

Describe how your program will advance the indicators identified in the plans selected:

Minnesota's Wildlife Action Plan - Two goals will be advanced - Goal 1: Ensure long term health and viability of Minnesota's wildlife, with focus on species that are rare, declining, or vulnerable to decline, Objective 1: Within the Wildlife Action Network, maintain and enhance resilience of habitat upon which Species in Greatest Conservation Need (SGCN) and other wildlife depend, including performance measures - implementation of projects, and promotion of best management practices. Goal 3: Acquire resources necessary to successfully implement the Wildlife Action Plan, Objective 1: Increase and diversify funding and partnerships for implementing the Wildlife Action Plan and reporting on the plans effectiveness, including the performance measure - number of proposals funded through new funding sources.

DNR Forest Action Plan - The relationship between Minnesota and National priorities will be strengthened and priorities advanced - Conserve and manage working forest landscapes, protect forests from threats, and enhance public benefits.

Which LSOHC section priorities are addressed in this proposal:

Northern Forest:

- Restore and enhance habitat on existing protected properties, with preference to habitat for rare, endangered, or threatened species identified by the Minnesota County Biological Survey

Describe how your program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife as indicated in the LSOHC priorities:

Through the activities noted above in Design and Scope of Work, this request would directly produce and demonstrate outcomes that address the LSOHC's priorities of:

- Restore and enhance fish, game, and other wildlife habitat by conducting 1. silvicultural and other forest habitat and land management work outside the scope of normal commercial forestry, and 2. habitat work in priority areas.

And address Conservation Opportunities of:

- Protecting and restoring high ecological value forests, including rare native plant communities, forest habitat for SGCNs, forested riparian areas, old-growth forests, and forest habitat corridors.
- Reforesting previously forested areas (e.g., in riparian areas to improve water quality and fish and wildlife habitat).
- Restoring, maintaining and enhancing existing forest habitats (e.g., North shore hardwood restoration, moose habitat improvement, deer thermal cover) using native species.
- Enhancing and restoring forested areas from adverse impacts of invasive species (e.g., ash forests from Emerald Ash Borer).
- Restoring pine and northern white cedar through appropriate silvicultural techniques, including prescribed fire and browse protection.
- Using the Ecological Classification System as an important tool to help maintain and enhance native plant communities.

- Managing brushland complexes, where appropriate in the forest matrix, for early successional species (e.g., in DNR priority open landscapes).
- Restoring, maintaining and enhancing ecosystem services in existing forests.

Describe how the proposal uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:

DNR's Conservation Agenda, Wildlife Action Plan, Forest Action Plan, SNA Strategic Land Protection Plan (along with specific site management plans), and Section Forest Resource Management Plans, which will guide activities, were developed using the best information and science to identify goals and strategies, a wildlife action network, conservation focus areas, priorities for conserving biodiversity, and direction and desired future composition goals for state lands.

How does the proposal address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species:

The Northern Forest Region, or Laurentian Mixed Forest Province, is home to over 170 species of greatest conservation need (SGCN). Habitats with significant value in this region on state lands that will be managed with the above listed activities, and some of the SGCN which depend upon them, include -

- brushlands (as noted in the LSOHC 25 year vision) - sharp-tailed grouse, moose, northern harrier, short-eared owl, loggerhead shrike, meadowlark, bobolink
- upland deciduous forest - American woodcock, northern goshawk, black-throated blue warbler, wood turtle, four-toed salamander, ovenbird, boreal owl
- lowland deciduous forest - red-shouldered hawk, cerulean warbler, prothonotary warbler
- upland conifer forest - evening grosbeak, spruce grouse, black-backed woodpecker, smoky shrew, boreal chickadee, heather vole, Canada lynx
- lowland conifer forest - great gray owls, boreal chickadee, northern bog lemming, Connecticut warbler, olive-sided flycatcher
- wetland - American bittern, upland sandpiper, yellow rail, sedge wren, Nelson's sparrow

Identify indicator species and associated quantities this habitat will typically support:

Sharp-tailed Grouse - Strategically treating an additional 1,000 acres a year of brushland habitat to sustain local leks, nesting, brood rearing and wintering habitat, could produce up to 500 additional sharp-tailed grouse over five years.

Moose - Added thermal cover and browse on up to 200 acres a year in targeted locations, through conifer planting and burning/mowing/shearing of trees and brush, could potentially support an additional ten moose over five years.

Black Bear - Strategic management for oak on up to 200 acres a year, to increase mast for wildlife, could potentially contribute up to 15 more bear over five years to the population.

Black-throated Blue Warbler - Controlling invasive species such as buckthorn from up to 200 acres of upland deciduous forest a year to maintain forest health and native plants, and support insects, may contribute up to 200 more black-throated blue warblers to the population over five years.

Ruffed Grouse - Maintaining native diversity by controlling invasive species, and planting to enhance diversity and thermal cover, on up to 200 acres a year in priority areas for ruffed grouse, such as Ruffed Grouse Management Areas, may produce up to 400 additional ruffed grouse over five years.

Outcomes:

Programs in the northern forest region:

- Healthy populations of endangered, threatened, and special concern species as well as more common species *Northern Minnesota forests will be enhanced to provide biologically diverse wildlife habitat for both desirable game species and endangered, threatened, special concern, and species of greatest conservation need, providing multiple conservation benefits in the face of climate change, invasive species, and other major stressors, and increased satisfaction from hunters and other recreational users. Wildlife populations and hunter satisfaction will be monitored.*

How will you sustain and/or maintain this work after the Outdoor Heritage Funds are expended:

We will select and implement projects to achieve high quality and enduring benefits. Projects have variable lifespans depending on project type, weather and other environmental conditions. Many of the projects are meant to endure for decades, at which point, regular forest management activity through harvest will renew the habitat in a sustainable manner. DNR staff will monitor them to ensure that follow up maintenance and enhancement occur as needed. If continued added capacity is needed to sustain projects and

health of habitats, potential funding avenues include, but are not limited to, Game and Fish Funds, bonding, FMIA, Heritage Enhancement Funds, special projects funds for SNAs, and volunteers. These state dollars provide a unique opportunity to potentially match federal funds for similar projects on private lands, such as through the USDA Regional Conservation Partnership Program.

Explain the things you will do in the future to maintain project outcomes:

Year	Source of Funds	Step 1	Step 2	Step 3
Annually	HEF, FMIA, G & F, OHF, ENRTF	Invasive species monitoring	Follow up treatments as needed	
Every 4-7 years	G & F, OHF, ENRTF	Prescribed fire and shearing/mowing	Repeat management as needed	
At 1, 5 and 10 years	FMIA, G & F, OHF, ENRTF	Tree planting and release, and restoration monitoring	Follow up treatment as needed	

What is the degree of timing/opportunistic urgency and why it is necessary to spend public money for this work as soon as possible:

Pressures on Northern Minnesota forests are increasing. It will be more cost effective to address habitat management needs now, to keep common wildlife species common and conserve SGCN, than to ignore needs. Minnesota is fortunate to have plentiful forest habitats, but we must thoughtfully and diligently work to keep them healthy for the future. Current DNR plans provide the opportunity to address habitat needs. Funding will accelerate implementation of these plans. Increased management of brushland habitats is a particularly urgent need in east-central Minnesota - sharp-tailed grouse depend upon them and have declined significantly in the past 10 years. Early detection and swift control of invasive species is also urgent. Preventing their spread into and across northern Minnesota will be more cost effective than the alternative.

Does this program include leverage in funds:

Yes

The Ruffed Grouse Society will contribute \$25,000 over the five year period.

Relationship to other funds:

- Ruffed Grouse Society

Describe the relationship of the funds:

Not Listed

Per MS 97A.056, Subd. 24, Any state agency or organization requesting a direct appropriation from the OHF must inform the LSOHC at the time of the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose:

This request would fund implementation of forest habitat enhancement projects that would not occur without the appropriation.

Describe the source and amount of non-OHF money spent for this work in the past:

Appropriation Year	Source	Amount
2017	Forestry - Bonding, Forest Management Investment Account (FMIA), General Fund (GF), Heritage Enhancement Fund (HEF); Wildlife - G & F; Eco/Waters - ENRTF	\$1,935,633
2018	Forestry - Bonding, FMIA, GF, HEF; Wildlife - G & F; Eco/Waters - ENRTF	\$2,987,990
2019	Forestry - FMIA, GF, HEF; Wildlife - G & F; Eco/Waters - ENRTF (pending)	\$937,676

Activity Details

Requirements:

If funded, this proposal will meet all applicable criteria set forth in MS 97A.056 - Yes

Will restoration and enhancement work follow best management practices including MS 84.973 Pollinator Habitat Program - **Yes**

Is the restoration and enhancement activity on permanently protected land per 97A.056, subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 - **Yes (WMA, SNA, AMA, State Forests)**

Do you anticipate federal funds as a match for this program - **No**

Land Use:

Will there be planting of corn or any crop on OHF land purchased or restored in this program - **No**

Accomplishment Timeline

Activity	Approximate Date Completed
Project team requests projects from state land managers, and reviews, prioritizes and schedules projects.	Spring 2020
Hire roving crew staff, secure equipment, and begin training.	Summer 2020
Start habitat enhancement and restoration projects.	Fall 2020
First annual evaluation by project team of projects, budget, and schedule. Additional projects requested. Projects continue.	Summer 2021
Second annual evaluation by project team. Additional projects requested. Projects continue.	Summer 2022
Third annual evaluation by project team. Additional projects requested. Projects continue.	Summer 2023
Fourth annual evaluation by project team. Additional projects requested. Projects continue.	Summer 2024
Forest habitat enhancement and restoration projects completed.	Summer 2025

Budget Spreadsheet

Total Amount of Request: \$7,759,900

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$3,200,000	\$0		\$3,200,000
Contracts	\$0	\$0		\$0
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$0	\$0		\$0
Easement Stewardship	\$0	\$0		\$0
Travel	\$1,500,000	\$0		\$1,500,000
Professional Services	\$0	\$0		\$0
Direct Support Services	\$309,900	\$0		\$309,900
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$250,000	\$0		\$250,000
Supplies/Materials	\$2,500,000	\$25,000	Ruffed Grouse Society	\$2,525,000
DNR IDP	\$0	\$0		\$0
Total	\$7,759,900	\$25,000	-	\$7,784,900

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Roving Crew (8 positions)	8.00	5.00	\$3,200,000	\$0		\$3,200,000
Total	8.00	5.00	\$3,200,000	\$0	-	\$3,200,000

Amount of Request: \$7,759,900

Amount of Leverage: \$25,000

Leverage as a percent of the Request: 0.32%

DSS + Personnel: \$3,509,900

As a % of the total request: 45.23%

Easement Stewardship: \$0

As a % of the Easement Acquisition: -%

How did you determine which portions of the Direct Support Services of your shared support services is direct to this program:

The DNR's Direct and Necessary (D&N) calculator was used. It was created for LSOHC/OHF and LCCMR/ENRTF proposals.

Does the amount in the travel line include equipment/vehicle rental? - Yes

Explain the amount in the travel line outside of traditional travel costs of mileage, food, and lodging:

All activities related to travel for the Roving Crew are placed in the travel line. These include basic mileage and lodging, as well as equipment rentals and leases, etc.

Describe and explain leverage source and confirmation of funds:

As a conservation organization, the Ruffed Grouse Society, is supportive of sustaining forest health and forest wildlife habitat. They will provide \$25,000 over the five year period for project supplies and materials.

Does this proposal have the ability to be scalable? - Yes

Tell us how this project would be scaled and how administrative costs are affected, describe the "economy of scale" and how outputs would change with reduced funding, if applicable:

This request can be scaled up or down by the number of crew staff hired and/or length of years a crew is hired. Administrative costs would be re-figured to address a different budget. Outputs would decrease proportionately to decreased funding.

Output Tables

Table 1a. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	500	0	500
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	0	0
Enhance	0	0	12,000	0	12,000
Total	0	0	12,500	0	12,500

Table 2. Total Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$311,300	\$0	\$311,300
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$7,448,600	\$0	\$7,448,600
Total	\$0	\$0	\$7,759,900	\$0	\$7,759,900

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	500	500
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0
Enhance	0	0	0	0	12,000	12,000
Total	0	0	0	0	12,500	12,500

Table 4. Total Requested Funding within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$0	\$0	\$0	\$0	\$311,300	\$311,300
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$0	\$7,448,600	\$7,448,600
Total	\$0	\$0	\$0	\$0	\$7,759,900	\$7,759,900

Table 5. Average Cost per Acre by Resource Type

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$623	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$621	\$0

Table 6. Average Cost per Acre by Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$0	\$0	\$0	\$0	\$623
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$0	\$621

Automatic system calculation / not entered by managers

Target Lake/Stream/River Feet or Miles

0

I have read and understand Section 15 of the Constitution of the State of Minnesota, Minnesota Statute 97A.056, and the Call for Funding Request. I certify I am authorized to submit this proposal and to the best of my knowledge the information provided is true and accurate.

Parcel List

Explain the process used to select, rank and prioritize the parcels:

Habitat management projects that meet plan and program priorities will be solicited from state land managers of WMAs, State Forest and SNAs within these nine Counties of the Northern Forest. Submitted projects will be reviewed, selected and prioritized by a team of DNR Wildlife, Forestry and SNA staff.

Section 1 - Restore / Enhance Parcel List

Aitkin

Name	TRDS	Acres	Est Cost	Existing Protection?
Habitat management projects will be solicited.	04724203	0	\$0	Yes

Carlton

Name	TRDS	Acres	Est Cost	Existing Protection?
Habitat management projects will be solicited.	04819213	0	\$0	Yes

Cook

Name	TRDS	Acres	Est Cost	Existing Protection?
Habitat management projects will be solicited.	06201206	0	\$0	Yes

Crow Wing

Name	TRDS	Acres	Est Cost	Existing Protection?
Habitat management projects will be solicited.	13527209	0	\$0	Yes

Itasca

Name	TRDS	Acres	Est Cost	Existing Protection?
Habitat management projects will be solicited.	05725206	0	\$0	Yes

Koochiching

Name	TRDS	Acres	Est Cost	Existing Protection?
Habitat management projects will be solicited.	15425201	0	\$0	Yes

Lake

Name	TRDS	Acres	Est Cost	Existing Protection?
Habitat management projects will be solicited.	05908217	0	\$0	Yes

Pine

Name	TRDS	Acres	Est Cost	Existing Protection?
Habitat management projects that meet plan and program priorities will be solicited.	04120201	0	\$0	Yes

St. Louis

Name	TRDS	Acres	Est Cost	Existing Protection?
Habitat management projects will be solicited.	06117210	0	\$0	Yes

Section 2 - Protect Parcel List

No parcels with an activity type protect.

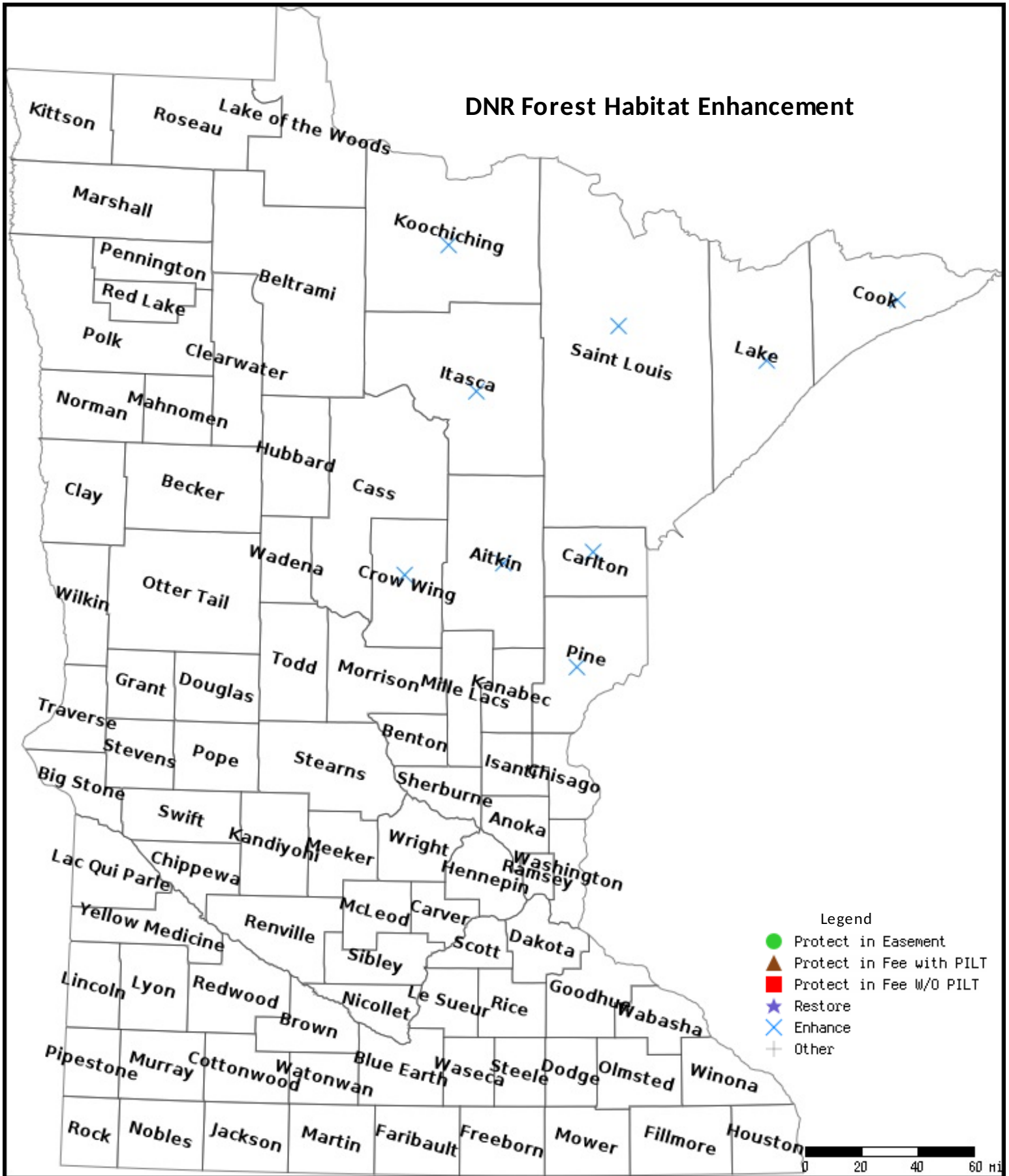
Section 2a - Protect Parcel with Bldgs

No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

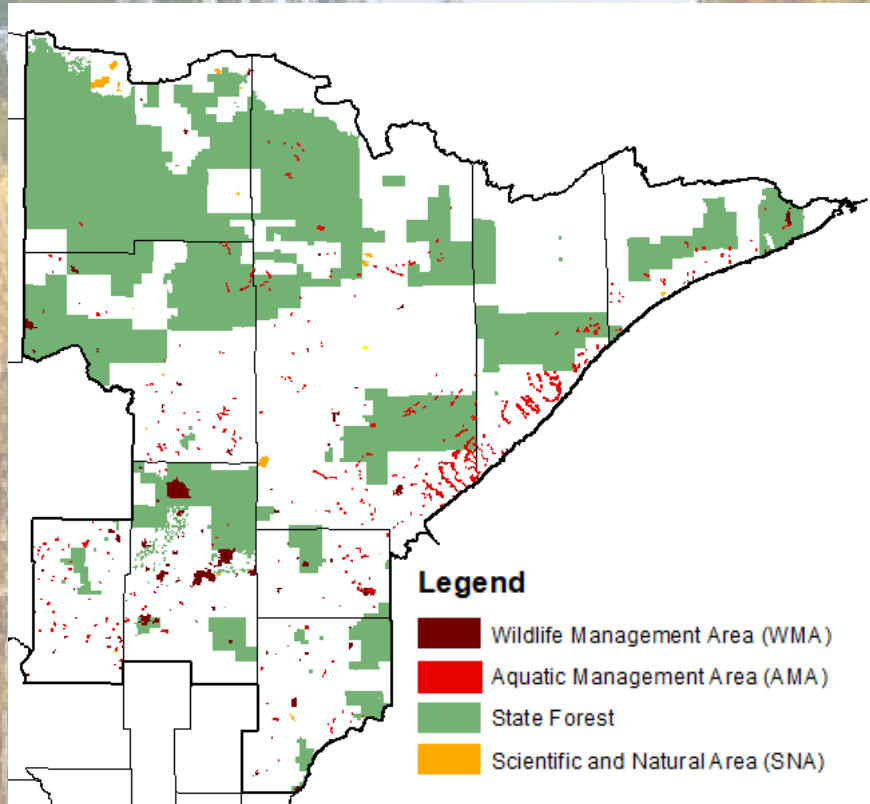
Parcel Map



Data Generated From Parcel List

DNR Forest Enhancement

Enhancements, such as prescribed fire and invasive species control in the below photos (shown here in a brushland and oak forest, and to treat buckthorn, respectively) are key to sustaining healthy, diverse, resilient habitat.



Map 1. DNR will enhance and restore up to 12,500 acres of habitat in the Northern Forest in Region 2 on WMAs, AMAs, State Forests and SNAs from 2020-2025. A roving habitat crew will increase capacity to implement projects not achieved through forest harvest. Habitat health, diversity and resilience, and ultimately wildlife populations, will be increased. Several Species in Greatest Conservation Need (SGCN) will benefit.



Activities will include projects that address stressors on our forests, such as invasive species, climate change, and lack of management beyond harvest, and are too small or unique for contractors, including certain tree planting and protection, tree release, wildlife opening, invasive species control, seed and acorn collection, and seeding projects.

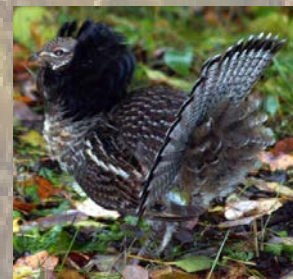
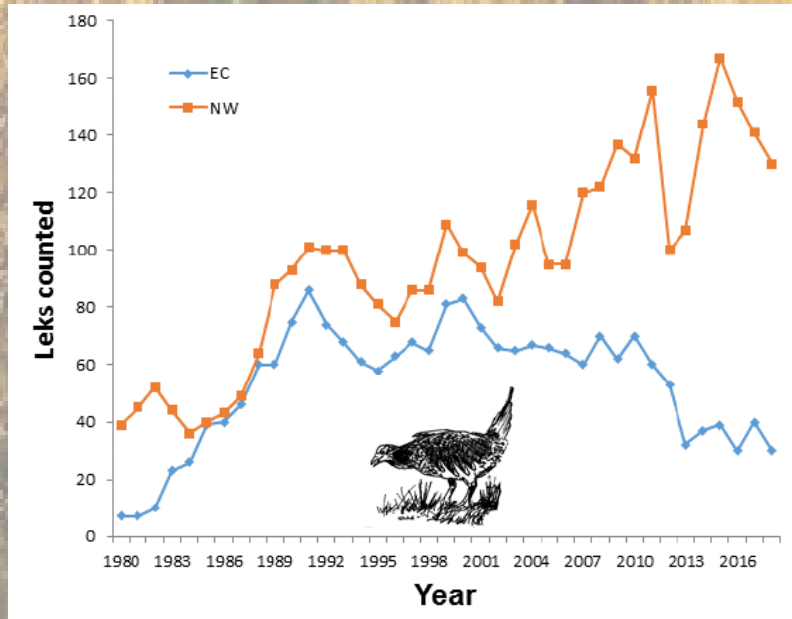


Figure 1. Sharp-tailed grouse leks in east-central Minnesota have declined. These native grouse, a SGCN and flagship species for other brushland wildlife, are in urgent need of greater habitat management. A roving crew will increase capacity by DNR staff to prescribe burn critical habitat on state lands. C. Roy, MN DNR, unpubl.data.