

# Lessard-Sams Outdoor Heritage Council

## Fiscal Year 2020 / ML 2019 Request for Funding



**Date:** May 31, 2018

**Program or Project Title:** Minnesota Forest Recovery Project: Phase I

**Funds Requested:** \$2,996,400

**Manager's Name:** Jim Manolis

**Organization:** The Nature Conservancy

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**County Locations:** Beltrami, Cass, Cook, Itasca, Lake, and St. Louis.

**Regions in which work will take place:**

- Northern Forest

**Activity types:**

- Enhance

**Priority resources addressed by activity:**

- Forest

### Abstract:

Northern Minnesota's forests are at a crossroads: they are increasingly challenged by invasive species, insect pests, a changing climate, and the legacy of inadequate management. Furthermore, some habitats have declined in many areas, including long-lived-conifers, young-forest, and large-patch habitats. These habitats are critical for numerous game and non-game species of concern. Through enhancements applied to 6,049 acres of degraded forests, the proposed project will increase long-lived conifers, young forest gaps, riparian forest complexity, and patch-size diversity. By acting today, we can improve the health and resilience of our forests for all the benefits they provide.

### Design and scope of work:

In northern Minnesota, hundreds of thousands of acres of forest are now in poor condition with diminished value for both wildlife and forest health. Long-lived conifers and early successional habitats have declined in many areas. Rapidly changing economic conditions plus threats such as invasive species, disease, a warming climate, fragmentation, and habitat loss pose great challenges for forest and wildlife managers. Over time, forest health issues tend to become more difficult and expensive to reverse. Significant investments in Minnesota's forests are urgently needed now to improve forest health for wildlife, clean water, cultural values, and local economies.

Major goals of this project are to:

- Enhance forest productivity in degraded stands to benefit forest wildlife
- Enhance riparian and upland forests to improve water quality and fish habitat
- Enhance tree species, age-class, and patch size diversity to improve habitat and increase forest resilience

This work will build on the strong partnerships and on-the-ground results produced over the past 20 years. Since 2009, TNC-supervised projects planted over 3 million trees across 12,000 acres of forests and have applied numerous enhancement treatments to those acres. The proposed project builds on this foundation.

Enhancement activities will include:

- Site preparation including shearing and brush cutting
- Brush removal around seedlings
- Coordinating activities across multiple landowners to maintain or increase both young and mature forest patch size

- Browse protection
- Prescribed burning
- Black Ash treatments to prepare for Emerald Ash Borer

We used a collaborative approach to identify sites and expect to include additional county, tribal, and industry partners over time. Sites included in this proposal are on US Forest Service, DNR, Leech Lake Band of Ojibwe, and Beltrami and St. Louis County lands. We will also work with and provide leadership to collaborative efforts including the Minnesota Forest Resources Council Landscape Committees, the Minnesota Forest Wildlife Habitat Collaborative, emerging all-lands collaboratives with the National Forests that utilize Stewardship and Good Neighbor Authorities, and the North Shore, Manitou, Sand-Lake Seven Beavers collaboratives. Other partners include the American Bird Conservancy, the Minnesota Deer Hunters Association, the Wildlife Management Institute, The Minnesota Land Trust, Trout Unlimited, the Ruffed Grouse Society, and the US Fish and Wildlife Service.

To implement the project, a new forest restoration position will coordinate management with landowners, supervise contractors and contracting crews, and strengthen local partnerships. This position will be supervised by existing staff and will be advised by a core team of partners.

Project sites will focus on core, priority areas with additional, smaller satellite sites or “stepping stones” that provide good opportunities for expansion in the future.

Core areas emphasize:

- North Shore: restoring productivity and diversity in declining birch and riparian forests
- Manitou Landscape: enhancing diversity and reducing fuel loads in a large, mature forest patch
- St. Louis River Headwaters: coordinating and enhancing large, young forest patches; diversity plantings
- Mississippi Headwaters/North Central Pines: controlled burns in mature pines at Sunken Lake Research Natural Area, ash diversification

## 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 Forest Resource Council Landscape Plans
- Minnesota's Wildlife Action Plan 2015-2025

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

This project will advance selected goals and objectives of several multi-partner plans including:

The Minnesota Forest Resources Council Landscape Plans:

- Northeast Landscape Plan, Goal 2: Maintain, Restore, and Enhance Native Biodiversity, Including Wildlife Habitat and Populations. Promote forest management practices that ensure the protection, restoration, and enhancement of terrestrial habitats in the region. Forest management should provide a variety of young and old age classes and structures to meet the ecological conditions needed to enhance viable populations of all existing native and desired non-native species.

- Draft North-Central Landscape Plan, Goal 1: Enhance the ability of the forest ecosystems in the region to adapt and respond to current and future threats by fostering ecosystem resilience, resistance, and adaptability.

State Wildlife Action Plan:

- Goal 1: Ensure the long-term health and viability of Minnesota's wildlife, with a focus on species that are rare, declining, or vulnerable to decline.

## Which LSOHC section priorities are addressed in this proposal:

### Northern Forest:

- Restore forest-based wildlife habitat that has experienced substantial decline in area in recent decades

## 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:

The Nature Conservancy is committed to conserving a dynamic mosaic of healthy lands and waters that will sustain and enhance a broad diversity of species and local communities. From protecting discrete pieces of land to conserving entire ecosystems through strategic planning and mobilizing policy initiatives, we seek to make tangible, lasting, and measurable results in critical places. We have been actively protecting and managing forests in Minnesota for more than 30 years. Investment in site preparation, tree planting for diversity enhancement, brush removal, browse protection, and implementing controlled burns is costly up-front, but becomes more sustainable once those investments have been made. The Nature Conservancy has a strong track record of finding a wide array of funds and garnering partner resources to mobilize ongoing enhancement and restoration. We are committed to sustaining the long-term legacy of investments made through our work.

## **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:**

We used a combination of GIS data layers to prioritize sites that will enhance corridors and complexes, limit fragmentation, and enhance priority areas identified by the MN Biological Survey. These data layers include the Minnesota Wildlife Action Network, Minnesota Biological Survey Biodiversity significance ranks, existing areas of collaborative focus identified by The Nature Conservancy and partners, and areas with poor forest stocking identified by agencies. For the initial pool of sites that we considered for this proposal, we used a GIS overlay approach of these different data sets to choose sites that meet partner priorities and meet LSHOC Northern Forest Section priorities. LSHOC priorities that were weighted most heavily included high-ranking locations within the Wildlife Action Network (indicating value for Species of Greatest Conservation Need and high-ranking areas identified by the Minnesota Biological Survey) and proximity to water (indicating value for cold-water lakes and watersheds).

In addition, we used a new data layer developed by a multi-state initiative called "Conserving Nature's Stage." Pioneered and led by TNC, this approach maps and ranks habitat connectivity and habitat resilience across large regions. If this project is funded, we will also incorporate a LiDAR derived assessment of forest structure that we are developing in partnership with the US Forest Service to identify areas of greatest restoration need.

## **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:**

This proposal addresses Species of Greatest Conservation Need in two main ways. First, it clearly addresses Objective 1 of the State Wildlife Action Plan: "Within the Wildlife Action Network, maintain and enhance the resilience of the habitats upon which Species in Greatest Conservation Need (SGCN) and other wildlife depend." The proposed habitat projects increase forest diversity and thus maintain or enhance resilience. The majority of proposed sites fall within higher ranking areas of the Wildlife Action Network. Second, specific treatments carried out by this project will benefit at least 20 SGCNs. For example, treatments that increase long-lived conifer abundance will benefit:

- Evening Grosbeak
- Olive-sided Flycatcher
- Spruce Grouse
- Purple Finch
- Connecticut Warbler
- Black-backed Woodpecker
- Winter Wren
- Moose
- Boreal Owl
- Canada Lynx

Treatments that create young forest conditions will benefit:

- Veery
- Wood Thrush
- Golden-winged Warbler
- Moose

Gap creation and planting in riparian areas will benefit:

- Veery
- Black-billed Cuckoo
- Olive-sided Flycatcher
- Common Merganser
- Winter Wren

- Four-toed salamander
- Eastern red-backed salamander
- Coaster Brook Trout
- Lake Sturgeon

At initiation of this project, we will convene a panel of experts on these species and review approaches for improving their habitat. Following that we will convene periodic meetings to review progress and new information on habitat needs and population status.

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

The following forest indicator species have been identified by the Minnesota DNR. We view these as placeholders until a more complete set of indicator species is developed.

Ovenbirds (*Seiurus aurocapilla*) are found in upland forests statewide; typically in relatively mature forest but can also be found in younger forests. While territories vary in size and may overlap, an average of 10 pairs for every 10 hectares may be translated to roughly 16 pairs for every 40 acres.

Golden-winged Warblers (*Vermivora chrysoptera*) are often associated with shrubland habitat and regenerating forests. However, recent current research indicates a variety of forest habitats are required, including a matrix of shrubby wetlands and uplands, regenerating forests, and mature forests. While territories vary in size, an average of 4 pairs for every 10 hectares may be translated to roughly 6 pairs for every 40 acres.

White-tailed deer (*Odocoileus virginianus*) use a wide variety of forested habitats, are found throughout Minnesota, and are an important game species in the state. In the 33 forested deer permit areas for which deer densities are estimated, covering most of the LSOHC Northern Forest section, the six-year average (2010-2015) for pre-fawn deer densities across all deer permit areas is 13 deer per square mile of land (excluding water). This translates to 0.02 deer (pre-fawning) per acre of forest land habitat or roughly 1 deer (pre-fawning) for every 50 acres of land.

### Outcomes:

#### Programs in the northern forest region:

- Improved availability and improved condition of habitats that have experienced substantial decline *We will seek and leverage funds to measure regeneration success, structural variables, and other measures of stand condition of treated sites. We will encourage landowner partners to do the same.*

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

This project will strengthen and support the many collaborative efforts across the forested region by mobilizing efforts to increase the pace and scale of forest restoration and enhancement. Through this effort, we are developing consistent methodologies and approaches that can be institutionalized through a collaborative process, thus ensuring a long-term commitment that follows ecological need and urgency. When possible, Outdoor Heritage funds will be used to leverage federal and private funds to expand restoration and enhancement efforts to the most critically needed locations.

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

Year	Source of Funds	Step 1	Step 2	Step 3
1-7	We will seek a mix of private and public funds	Install browse protection on planted seedlings	Monitor seedling survival	
5	We will seek a mix of private and public funds	Release/cut competing brush around seedlings		
7, 10	We will seek a mix of private and public funds, landowner responsibility	Check sapling condition	Prune white pines for blister rust	
20, 40, 60	Landowner responsibility	Check stand condition	Thin or treat as appropriate	

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

To put it simply, Minnesota’s forests are in trouble. Urgent action is needed to address widespread and increasing forest health issues that degrade wildlife habitat. A recent analysis conducted by the Superior National Forest found that over 50,000 acres of forest have lost their capacity for viable timber harvests, which are key tools for maintaining habitat diversity for numerous wildlife species and forest types. Forest fragmentation, habitat loss, and degradation, combined with large-scale perturbations such as climate change and

forest pests and pathogens further exacerbate the threats posed to our forested systems and the game and non-game species that are dependent upon them. Over time, forest health issues tend to become more difficult and expensive to reverse. Significant investments are urgently needed now to improve northern Minnesota's forests for wildlife and all the benefits forests provide.

### How does this proposal include leverage in funds or other effort to supplement any OHF appropriation:

To support our ongoing forest enhancement work, we continually seek and acquire private foundation grants, public funds, and donations from corporations and individuals. Leverage sources and amounts for this proposal include:

- TNC's international "Plant a Billion Trees" program (\$100,000 in hand)
- TNC's Lake Superior and Mississippi Headwaters Funds (\$200,000 in hand)
- Chippewa and Superior National Forest Stewardship Agreements (\$100,000+ committed in agreements)
- In-kind labor provided by National Forests (\$118,510 value)

### Relationship to other funds:

- Private Contributions to TNC, US Forest Service Funds and in-kind work.

### Describe the relationship of the funds:

We are leveraging state funds with private funds through a contribution of 50% of our Direct Support Services, plus additional leverage as detailed in the leverage section.

### 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 proposal does not substitute or supplant previous funding that was not from a legacy fund.

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

Not Listed

## 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, Private Land, County/Municipal, State Forests, US Forest Service Lands)**

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
Complete first season of site preparation	April 2020
Complete first season of planting	May 2020
Complete first season of browse protection	November 2020
Complete second season of site preparation	April 2021
Complete second season of planting	May 2021
Complete second season of browse protection	November 2021
Complete third season of site preparation	April 2022
Complete third season of planting	May 2022
Complete final prescribed burns	June 2022

# Budget Spreadsheet

**Total Amount of Request: \$2,996,400**

## Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$367,600	\$0		\$367,600
Contracts	\$1,485,000	\$318,500	US Forest Service, private donors and foundations	\$1,803,500
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	\$11,400	\$0		\$11,400
Professional Services	\$0	\$0		\$0
Direct Support Services	\$327,600	\$327,600	TNC	\$655,200
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$804,800	\$200,000	US Forest Service, private donors and foundations	\$1,004,800
DNR IDP	\$0	\$0		\$0
Total	\$2,996,400	\$846,100		\$3,842,500

## Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Forest Recovery Forester	1.00	3.00	\$209,800	\$0		\$209,800
Program Management	0.40	3.00	\$127,600	\$0		\$127,600
Grant Admin	0.12	3.00	\$30,200	\$0		\$30,200
Total	1.52	9.00	\$367,600	\$0		\$367,600

Amount of Request: \$2,996,400

Amount of Leverage: \$846,100

Leverage as a percent of the Request: 28.24%

DSS + Personnel: \$695,200

As a % of the total request: 23.20%

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:

DSS is based on The Nature Conservancy's Federally Negotiated rate as proposed and subsequently approved by the US Dept. of Interior on an annual basis. The proportion requested from the grant represents 50% with the other 50% contributed as leverage.

### Does the amount in the contract line include R/E work?

The entire contract line item is dedicated to enhancement work.

### Does the amount in the travel line include equipment/vehicle rental? - No

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

Not Listed

### Describe and explain leverage source and confirmation of funds:

TNC will leverage privately sourced funds to cover half of direct support services (DSS) costs. Other leverage sources include private and public funds and in-kind labor as detailed in the leverage section of the proposal narrative.

### 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:**

The proposed funding level maximizes efficiency by balancing limited personnel with contracting. A lower funding amount would increase cost per acre, or reduce geographic scale of impact. With a higher amount of funding we could increase acres treated while reducing cost per acre.



## Output Tables

**Table 1a. Acres by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	0	0
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	6,049	0	6,049
Total	0	0	6,049	0	6,049

**Table 2. Total Requested Funding by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$0	\$0
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	\$2,996,400	\$0	\$2,996,400
Total	\$0	\$0	\$2,996,400	\$0	\$2,996,400

**Table 3. Acres within each Ecological Section**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	0	0
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	6,049	6,049
Total	0	0	0	0	6,049	6,049

**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	\$0	\$0
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	\$2,996,400	\$2,996,400
Total	\$0	\$0	\$0	\$0	\$2,996,400	\$2,996,400

**Table 5. Average Cost per Acre by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$0	\$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	\$495	\$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	\$0
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	\$495

**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:

For the pool of sites that we considered for this proposal, we used a GIS overlay approach to choose sites that meet partner priorities and meet LSOHC Northern Forest Section priorities. LSHOC priorities that were weighted most heavily included high-ranking locations within the Wildlife Action Network (indicating value for Species of Greatest Conservation Need and high ranking areas identified by the Minnesota Biological Survey) and proximity to water (indicating value for cold-water lakes and watersheds).

### Section 1 - Restore / Enhance Parcel List

#### Beltrami

Name	TRDS	Acres	Est Cost	Existing Protection?
North-Central Pines-213048	15032220	7	\$945	Yes
North-Central Pines-217001	15131215	5	\$675	Yes
North-Central Pines-Darrigan1	15032201	11	\$1,485	Yes
North-Central Pines-Darrigan2	15032212	4	\$540	Yes
North-Central Pines-fire-salvage	15132230	124	\$16,740	Yes
North-Central Pines-old fields1	15032202	13	\$1,755	Yes
North-Central Pines-old fields2	15032211	4	\$540	Yes

#### Cass

Name	TRDS	Acres	Est Cost	Existing Protection?
Miss. Hdwtrs-Ash Diversification	14228235	30	\$30,000	Yes
Miss. Hdwtrs-North Central Pines-Pinepoint	14231202	482	\$96,400	Yes

#### Cook

Name	TRDS	Acres	Est Cost	Existing Protection?
North Shore-Cascade	06002202	33	\$15,015	Yes
North Shore-Cascade	06102235	32	\$14,560	Yes
North Shore-Colvil	06202135	152	\$69,160	Yes
North Shore-Cramer	05905235	130	\$59,150	Yes
North Shore-DNR-10	05905216	38	\$9,500	Yes
North Shore-East Colvill WMA	06103106	35	\$16,450	Yes
North Shore-hdwd-diversity	05904208	9	\$2,250	Yes
North Shore-hdwd-diversity-2	05904216	9	\$2,250	Yes
North Shore-Jonvik	06002219	277	\$126,035	Yes
North Shore-Sugarloaf-4	05805216	115	\$52,325	Yes
North Shore-Sugarloaf-5	05805217	115	\$52,325	Yes
North Shore-Super-permit 2	06304136	100	\$45,500	Yes
North Shore-Super-permit 3	06204101	100	\$45,500	Yes
North Shore-Super-permit 4	06204102	100	\$45,500	Yes
North Shore-Temperence	05904219	150	\$68,250	Yes

#### Itasca

Name	TRDS	Acres	Est Cost	Existing Protection?
North-Central Pines-Sunken Lake	14727216	640	\$128,000	Yes

Lake

Name	TRDS	Acres	Est Cost	Existing Protection?
Cloquet Hdwtrs-Trapper Good Neighbor	05611209	100	\$35,000	Yes
Cloquet Hdwtrs-Trapper Good Neighbor	05611210	100	\$35,000	Yes
Cloquet Hdwtrs-Trapper Good Neighbor	05611216	100	\$35,000	Yes
Cloquet Hdwtrs-Trapper Good Neighbor	05611217	100	\$35,000	Yes
Cloquet Hdwtrs-Trapper Good Neighbor	05611220	100	\$35,000	Yes
Cloquet Hdwtrs-Trapper Good Neighbor	05611221	100	\$35,000	Yes
Isabella-Aerial_seed_1_DNR	05908216	300	\$30,000	Yes
Manitou Barker1	05906214	34	\$18,700	Yes
Manitou Barker2	05906222	54	\$29,700	Yes
Manitou-DNR-11	05906216	105	\$26,250	Yes
Manitou Stony1	05906210	51	\$28,050	Yes
Manitou Stony2	05906209	187	\$74,800	Yes
Manitou Stony3	05906208	50	\$27,500	Yes
Manitou Stony4	05906215	51	\$28,050	Yes
North Shore-05410235	05410235	100	\$45,500	Yes
North Shore-Caribou Falls WMA	05806236	80	\$27,600	Yes
North Shore-DNR-8	05411216	20	\$5,000	Yes
North Shore-Little Marais WMA	05706216	70	\$37,100	Yes
North Shore-Lookout-Egge Ridges Diversity Gap Planting	05807228	29	\$5,800	Yes

## St. Louis

Name	TRDS	Acres	Est Cost	Existing Protection?
Cloquet Hdwtrs-Skibo-Berry Well1	05612232	20	\$7,000	Yes
Cloquet Hdwtrs-Skibo-Berry Well2	05612218	35	\$12,250	Yes
Cloquet Hdwtrs-Skibo-Berry Well3	05612219	55	\$19,250	Yes
Cloquet Hdwtrs-Smashed	05216210	42	\$21,000	Yes
Hoo-Dis	06319202	69	\$34,500	Yes
North Shore-DNR-7	05312216	45	\$11,250	Yes
North Shore-Gnesen	05014204	188	\$94,000	Yes
North Shore-Hardwoods_White Pine	05510216	150	\$37,500	Yes
North Shore-Hwy 61 Pines	05212236	47	\$16,450	Yes
North Shore-Knife-River fisheries	05412225	100	\$45,500	Yes
North Shore-Knife-River fisheries-2	05412236	100	\$45,500	Yes
St. Louis Hdwtrs-Bird Lk, Stand 79, 81	05814236	56	\$11,480	Yes
St. Louis Hdwtrs-Eveleth, Stand 104, 201, 204	05817228	50	\$5,000	Yes
St. Louis Hdwtrs-Eveleth, Stand 129, 196	05817233	30	\$3,000	Yes
St. Louis Hdwtrs-Skibo-3	05614221	75	\$26,250	Yes
St. Louis Hdwtrs-Skibo_Dollar1	05613232	70	\$31,850	Yes
St. Louis Hdwtrs-Skibo_Dollar2	05613231	85	\$38,675	Yes
St. Louis Hdwtrs-Skibo-Dollar3	05613230	45	\$20,475	Yes
St. Louis Hdwtrs-Skibo-Dollar4	05613220	40	\$14,000	Yes
St. Louis Hdwtrs-Skibo-Dollar5	05613217	40	\$14,000	Yes
St. Louis Hdwtrs-Skibo-dollar6	05613229	25	\$11,375	Yes
St. Louis Hdwtrs-Skibo-Lindwood1	05614233	50	\$22,750	Yes
St. Louis Hdwtrs-Skibo-Lindwood2	05614227	105	\$47,775	Yes
St. Louis Hdwtrs-Skibo-Lindwood3	05614226	50	\$22,750	Yes
St. Louis Hdwtrs-Skibo-Lindwood4	05614223	75	\$34,125	Yes
St. Louis Hdwtrs-Skibo-Lindwood5	05614222	90	\$40,950	Yes
St. Louis Hdwtrs-Skibo-Meander1	05614215	20	\$9,100	Yes
St. Louis Hdwtrs-Skibo-Meander2	05614214	50	\$22,750	Yes
St. Louis Hdwtrs-Skibo-Reno	05713223	100	\$35,000	Yes
St. Louis Hdwtrs-Skibo-Whiteface1	05614219	30	\$10,500	Yes
St. Louis Hdwtrs-Skibo-Whiteface2	05614220	25	\$8,750	Yes
St. Louis Hdwtrs-Stand 126	05614228	4	\$420	Yes
St. Louis Hdwtrs-Stand 190	05614216	13	\$1,310	Yes
St. Louis Hdwtrs-Stand 369	05617216	4	\$1,170	Yes
St. Louis Hdwtrs-Stand 419	05617221	8	\$840	Yes
St. Louis Hdwtrs-Stand 448	05616236	73	\$7,300	Yes
St. Louis Hdwtrs-Stand 51	05614218	39	\$3,880	Yes

## Section 2 - Protect Parcel List

No parcels with an activity type protect.

## Section 2a - Protect Parcel with Bldgs

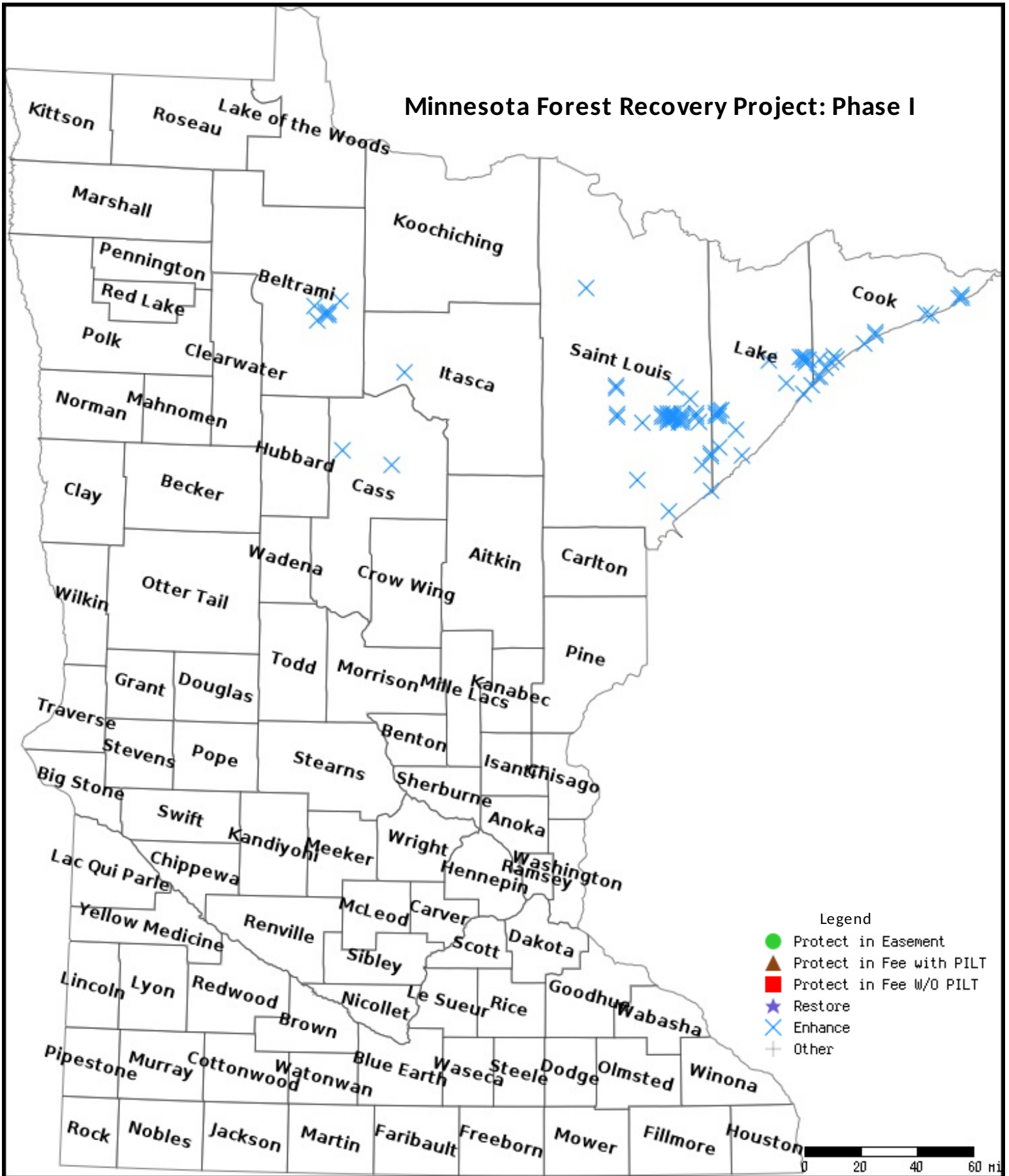
No parcels with an activity type protect and has buildings.

### **Section 3 - Other Parcel Activity**

No parcels with an other activity type.

# Parcel Map

## Minnesota Forest Recovery Project: Phase I



Data Generated From Parcel List





# THE MINNESOTA FOREST RECOVERY PROJECT – PHASE I



## STRENGTHENING PARTNERSHIPS TO RESTORE FORESTS FOR RESILIENCE AND WILDLIFE

### Project Goals

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Restoring and enhancing Minnesota's Forests is critical for the long-term viability of the many game and non-game species that call these forests home. From the ovenbird to the ruffed grouse, maintaining well-connected and diverse forest habitats will ensure our forests remain healthy and resilient.

This project has three major goals:

- Enhance forest productivity in degraded stands to benefit forest wildlife
- Enhance riparian and upland forests to improve water quality and fish habitat
- Restore tree species, age-class, and patch size diversity to improve habitat and increase forest resilience

### By the Numbers

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Funds Requested: \$2,912,000

Leverage: \$846,100

Acres Enhanced: 6,049

All projects take place in priority areas that support ongoing activities in the region.



### Benefits

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The management treatments identified in this proposal include forest diversification, the enhancement of large mature patches, creation of young forest conditions, and the increase of complexity in riparian forests—all actions are identified in the State Wildlife Action Plan to support habitat resilience.

These treatments are designed to directly benefit at least 20 Species of Greatest Conservation Need, including the Evening Grosbeak, a conifer-dependent species that has declined by more than 90% since 1970.

At the initiation of this project, we will convene a panel of species experts to ensure we are maximizing habitat benefits for a diverse array of species.

## MINNESOTA FOREST RECOVERY PROJECT PARTNERS



### Science-Based Targeting

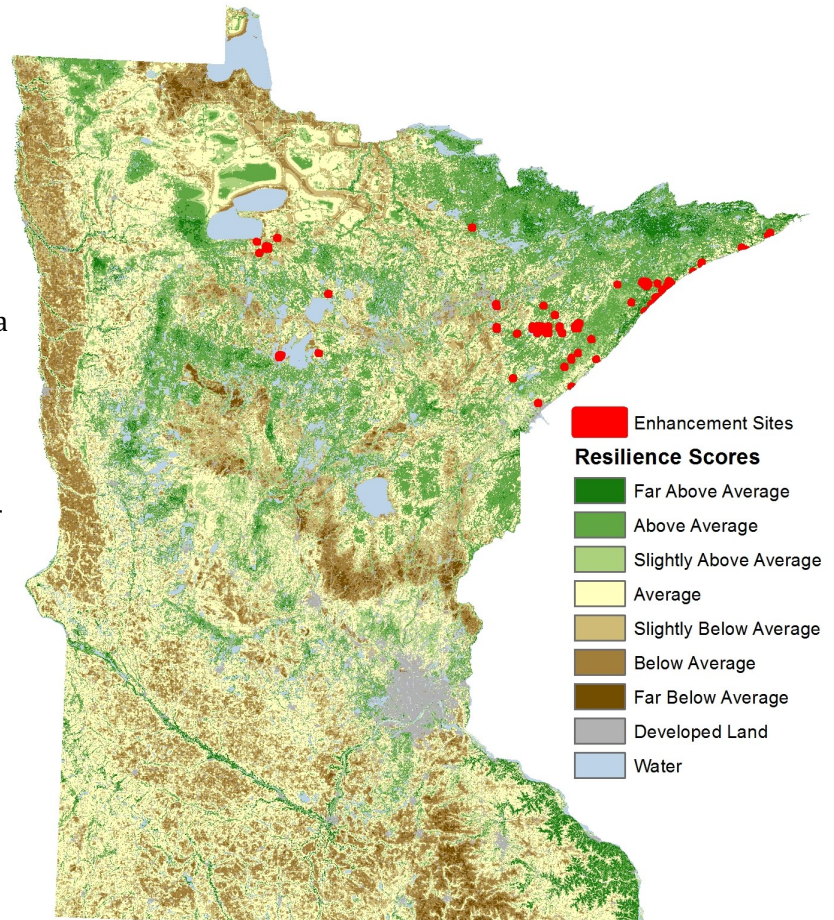
We used a combination of GIS data layers to prioritize sites that enhance connectivity and complexes, limit fragmentation, and enhance priority areas identified by the MN Biological Survey.

These data layers include the Minnesota Wildlife Action Network, proximity to water, biodiversity significance ranks, and agency data identifying areas with poor forest stocking.

In addition, we used a new analysis developed by a multi-state initiative called "Conserving Nature's Stage." This analysis incorporates landscape connectivity and landform complexity to identify 'Resilient and Connected Landscapes' that are critical for ensuring species survival in the face of environmental change.

Using a science-driven approach, we are focusing on existing areas of high collaboration to ensure that our strong track record of success continues with this proposal.

### Resilient and Connected Landscapes



Questions on The Minnesota Forest Recovery Project, Please Contact:

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