Lessard-Sams Outdoor Heritage Council
Laws of Minnesota 2020 Accomplishment Plan

Date: December 13, 2019

Program or Project Title: Southeast Forest Habitat Enhancement Phase II

Funds Recommended: $ 1,167,000

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Legislative Citation: ML 2020, Ch. X, Art. 1, Sec. 2, subd XX

Appropriation Language:

County Locations: Fillmore, Goodhue, Houston, Olmsted, Wabasha, and Winona.

Eco regions in which work will take place:

- Southeast Forest

Activity types:

- Enhance
- Restore

Priority resources addressed by activity:

- Forest
- Habitat

Abstract:

Blufflands oak forest regeneration is threatened by invasive species, lack of fire, and subsequent succession to less desirable northern hardwood trees, such as maple and basswood. This proposal combines invasive species treatments, increased use of fire in fire-dependent forests, and mast tree planting on sites being converted from ag land to forest as well as existing stands identified for harvest by the Subsection Forest Resource Management Plan (SFRMP) and the Sustainable Timber Analysis. This work supports goals identified in the SFRMP as well as the State Wildlife Action Plan and the MFRC Southeast Forest Landscape Plan.

Design and scope of work:

Bluffland oak forests in SE Minnesota are changing to less desirable northern hardwood species. This change is due to several factors, including lack of regular fire in fire-dependent forests, which allows fire-intolerant species (maple/basswood) to dominate; and, the increasing threat of invasive species, which impacts natural regeneration and understory diversity. This change is compounded by the high percentage (65%) of oak stands that are beyond normal rotation age. Oaks and other mast-producing species are difficult to regenerate naturally, especially as they age because they don't resprout; thus, harvested older stands require underplanting to ensure oak dominated forests are regenerated. Many of our forests are succumbing to the impacts of invasive species such as buckthorn,

honeysuckle, barberry and oriental bittersweet. These aggressive non-native plants impede natural regeneration as well as significantly limit the success of underplanting/direct seeding, and reduce overall forest diversity and quality. Because these species are more aggressive and bloom earlier than native species, they have a competitive edge over our native understory herbaceous plants, woody shrubs, small and large trees. If left unchecked/untreated, especially after a harvest, the invasive species outcompete native species, completely changing the type, quality and diversity of our forests. The ripple effect associated with invasive species includes a decrease in the forest's ability to support a larger diversity of wildlife. To counteract the impact of invasive species on forest regeneration and establishment, this proposal includes several invasive species management practices including direct treatment of invasive species (herbicide application), prescribed burning in fire-dependent forest communities, and stand improvement to reduce competition by northern hardwoods (maple/basswood). By combining a variety of management practices, we will be able to support a timber harvest program that results in a contribution to the wood fiber industry while also maintaining high quality, diverse, resilient forest habitat that supports a wide array of common and rare plant and animal species, and forest-related recreation.

Stands that will receive treatment under this proposal will be selected from the annual stand exam lists identified by the Blufflands/Rochester Plateau Subsection Forest Resource Management Plan and Sustainable Timber Harvest Analysis. These stands are located on the Whitewater and Rochester Area Wildlife Management Areas, and Richard J. Dorer Memorial Hardwood State Forest. Stands selected for release will be identified from regeneration checks of stands harvested within the past 10-15 years. This proposal will build on work completed under the Southeast Forest Enhancement Phase I award, which impacted over 2,000 acres. It is also consistent with the Council's FY21 goal of protection from long-term/permanent endangerment from invasive species, and support healthy populations of listed and common species. It also supports the State Wildlife Action Plan's goals of maintaining and enhancing the resilience of habitats upon which Species in Greatest Conservation Need (SGCN) depend, and maintain or enhance habitat in Conservation Focus Areas (Whitewater, Root River, and Vermillion).

How does the request address MN habitats that have: historical value to fish and wildlife, wildlife species of greatest conservation need, MN County Biological Survey data, and/or rare, threatened and endangered species inventories:

The forests of SE MN are unique in that they are largely untouched by recent glaciers that covered most of MN. This history has left a legacy of hardwood forests and striking topographic relief that provides habitat worthy of protection. To add to its significance, southeast Minnesota has the highest number of Species in Greatest Conservation Need (SGCN) in the state, the most state-listed species, the highest diversity of habitats, and a significant proportion of the state's population. These combined features make SE forests highly used by hunters, anglers, birders, and other recreational users during all seasons of the year, contributing significantly to local, regional and state economies. A key component to SE forests are oak and other mast producing trees. Oak dominated forests have graced SE Minnesota since settlement. The value of hard mast for wildlife is significant, supporting a healthy population of game animals included deer, turkey, woodcock, squirrels, foxes, wood ducks, and raccoons. Additionally, these forests provide critical habitat for 39 special concern, threatened, endangered and SGCN, such as northern long-eared bats, timber rattlesnakes, Acadian flycatchers, Veerys, Whip-por-wills, Brown Thrashers, and five-lined skinks, to name a few. The uniqueness and diversity of Southeast oak forests, means they often have other habitat types nested within them. SE oak forests, including sites covered under this proposal, often have grassland components that provide the forest/grassland transition necessary for such species as the federally-endangered rusty patched bumble bee and the monarch butterfly (federal candidate species). These forests also support an array of rare plants, including goldenseal, tubercled rein orchid, and dwarf trout lily. This proposal will directly benefit SGCN by enhancing and increasing forested habitat, reducing invasive species, and bringing a younger oak forest component to the region, adding to forest structure diversity.

Describe the science based planning and evaluation model used:

This proposal is using several strategic plans to help target landscape-level complexes for oak forest enhancement. The Blufflands/Rochester Plateau SFRMP has assessed forest conditions, developed strategic direction and desired future conditions on DNR lands, which will be implemented if this proposal is awarded. This plan puts a heavy emphasis on oak, which is (or should be) the dominant forest species of many southeastern forests. Many forest complexes included in this proposal have High Biodiversity Plans developed for them based on the Minnesota Biological Survey data. These plans will be used to inform stand selection and native plant community complexes. The Minnesota Wildlife Action Plan (MnWAP) has identified the Wildlife Action Network, which identifies areas of species significance, and Conservation Focus Areas for targeting on-the-ground habitat work that will benefit the most species, especially SGCN. Habitat complexes and stands under this proposal fall into three Conservation Focus Areas (Whitewater, Vermillion, and Root River) and are within high- and medium-ranked areas of the Wildlife Action Network. The MFRC Southeast Forest Landscape Plan identifies on-the-ground strategies for achieving increased forest habitat and higher quality forests. Management actions identified in the SWAP and SE Forest Plan will be implemented if this proposal is awarded. All of these plans used science-based inputs including inventory, surveys, monitoring, habitat assessments, and computer modeling and analysis to set priorities. By combining the common priorities of these plans, and continuing with inter/intra agency and organization cooperation to allow for adaptive management, this proposal will accomplish landscape-scale forest enhancement in SE Minnesota.

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

program:

- H1 Protect priority land habitats
- LU10 Support and expand sustainable practices on working forested lands

Which other plans are addressed in this program:

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

Which LSOHC section priorities are addressed in this program:

Southeast Forest:

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

Relationship to other funds:

- Not Listed

Does this program include leverage in funds:

No

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:

These funds are not being used to supplant any forest-related activity on State Wildlife Lands, and will be used to augment funds used on State Forest Lands for improved invasive species management and prescribed burning.

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

Appropriation Year	Source	Amount
FY2017	Forestry Bonding, Forest Management Account, General Fund, Heritage Enhancement Fund, Game & Fish Fund, Eco/Waters ENRTF	$1,935,632
FY2018	Forestry Bonding, Forest Management Account, General Fund, Heritage Enhancement Fund, Game & Fish Fund, Eco/Waters ENRTF	$3,047,930
FY2019	Forest Management Account, General Fund, Heritage Enhancement Fund, Game & Fish Fund	$889,135

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

Planted stands will be monitored for success with regular regeneration surveys at year 1, 5, and 10, and will receive additional silvicultural treatment as necessary. Released stands 10-15 years post harvest should be "free to grow." Sites with recurring invasive species concerns will be monitored and treated using a variety of methods, including prescribed burning, herbicide application, and possibly rotational goat grazing on highly problematic sites.

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

Year	Source of Funds	Step 1	Step 2	Step 3
2022-2025	DNR Funding	regeneration checks of first year plantings	follow-up treatment as need and funding allows	
2025-2030	DNR Funding	5-year regeneration checks of plantings	follow-up treatment as need and funding allows	
2026-2030	DNR Funding	10-year regeneration checks of plantings	follow-up treatment as need and funding allows	

Activity Details:

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

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

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

Is the 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, State Forests)**

Accomplishment Timeline:

Activity	Approximate Date Completed
Inter-disciplinary review of stands on annual exam list, stands are site-visited, and appropriate stands for supplemental planting and/or invasives removal are selected.	2019, 2020, 2021, 2022, 2023
Trees are ordered and planted	2020, 2021,2022, 2023
Sites are prepped for direct seeding, seed ordered, and direct seeded	2020, 2021,2022, 2023
Pre-sale invasive species removal	2020, 2021,2022, 2023
Prescribed burning to set back invasive species and assist with mast tree regeneration	2020, 2021,2022, 2023
Site checks for evaluating pre-harvest invasive species	2020, 2021,2022, 2023
Regeneration harvest	2020, 2021,2022, 2023
Release of mast trees 10--15 years after previous regeneration efforts	2020, 2021, 2022, 2023
1-year regeneration checks of planted sites	2021, 2022, 2023, 2024
Post-sale invasive species treatment, if needed	2021, 2022, 2023, 2024
Post-sale release of planted sites	2020, 2021, 2022, 2023

Date of Final Report Submission: 12/31/2024

Federal Funding:

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

Outcomes:

Programs in southeast forest region:

- Healthier populations of endangered, threatened, and special concern species as well as more common species *Southeast Minnesota forests will be enhanced to provide diverse wildlife habitat for desirable game species, listed species 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.*

  Outcomes will be measured/evaluated by conducting regeneration checks using forestry regen forms, Ecological Classification System evaluations, pre/post management invasive species site checks. Wildlife will be monitored using existing DNR surveys (ex. ruffed grouse drumming count). Hunter satisfaction measured by user surveys.

Budget Spreadsheet

Budget reallocations up to 10% do not require an amendment to the Accomplishment Plan

How will this program accommodate the reduced appropriation recoomendation from the original proposed requested amount

The additional $35,000 will be used for supplies such as tree seedlings for underplanting, seed for direct seedings, and herbicide for pre/post management.

Total Amount of Request: $ 1167000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	$0	$0		$0
Contracts	$1,016,100	$0		$1,016,100
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	$0	$0		$0
Professional Services	$0	$0		$0
Direct Support Services	$16,300	$0		$16,300
DNR Land Acquisition Costs	$0	$0		$0
Capital Equipment	$0	$0		$0
Other Equipment/Tools	$0	$0		$0
Supplies/Materials	$134,600	$0		$134,600
DNR IDP	$0	$0		$0
Total	$1,167,000	$0		$1,167,000

Amount of Request:	$1,167,000
Amount of Leverage:	$0
Leverage as a percent of the Request:	0.00%
DSS + Personnel:	$16,300
As a % of the total request:	1.40%

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.

What is included in the contacts line?

Contracts include: contracted labor for pre-sale underplanting, direct seeding, pre/post sale invasive species treatment, mast tree release, and prescribed burning.

Describe and explain leverage source and confirmation of funds:

Not Listed

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	3,550	0	3,550
Total	0	0	3,550	0	3,550

Table 2. Total 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	$1,167,000	$0	$1,167,000
Total	$0	$0	$1,167,000	$0	$1,167,000

Table 3. Acres within each Ecological Section

Type	Metro Urban	Forest Prairie	SE Forest	Prairie	N 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	3,550	0	0	3,550
Total	0	0	3,550	0	0	3,550

Table 4. Total Funding within each Ecological Section

Type	Metro Urban	Forest Prairie	SE Forest	Prairie	N 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	$1,167,000	$0	$0	$1,167,000
Total	$0	$0	$1,167,000	$0	$0	$1,167,000

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	$329	$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	$329	$0	$0

Automatic system calculation / not entered by managers

Target Lake/Stream/River Feet or Miles

0

Parcel List

For restoration and enhancement programs ONLY: Managers may add, delete, and substitute projects on this parcel list based upon need, readiness, cost, opportunity, and/or urgency so long as the substitute parcel/project forwards the constitutional objectives of this program in the Project Scope table of this accomplishment plan. The final accomplishment plan report will include the final parcel list.

Section 1 - Restore / Enhance Parcel List

Fillmore

Name	TRDS	Acres	Est Cost	Existing Protection?
Richard J Dorer Memorial Forest	10309221	0	$0	Yes
Rochester Area Wildilfe Management Areas	10212221	0	$0	Yes

Goodhue

Name	TRDS	Acres	Est Cost	Existing Protection?
Richard J Dorer Memorial Forest	11214207	0	$0	Yes
Rochester Area Wildilfe Management Areas	11215208	0	$0	Yes

Houston

Name	TRDS	Acres	Est Cost	Existing Protection?
Richard J Dorer Memorial Forest	10407227	0	$0	Yes
Rochester Area Wildilfe Management Areas	10407232	0	$0	Yes

Olmsted

Name	TRDS	Acres	Est Cost	Existing Protection?
Richard J Dorer Memorial Forest	10513217	0	$0	Yes
Rochester Area Wildlife Management Areas	10713226	0	$0	Yes
Whitewater Wildlife Management Area	10711201	0	$0	Yes

Wabasha

Name	TRDS	Acres	Est Cost	Existing Protection?
Richard J Dorer Memorial Forest	10910215	0	$0	Yes
Rochester Area Wildilfe Management Areas	10910201	0	$0	Yes
Whitewater Wildlife Management Area	10910235	0	$0	Yes

Winona

Name	TRDS	Acres	Est Cost	Existing Protection?
Richard J Dorer Memorial Forest	10809204	0	$0	Yes
Rochester Area Wildilfe Management Areas	10808221	0	$0	Yes
Whitewater Wildlife Management Area	10810201	0	$0	Yes

Section 2 - Protect Parcel List

No parcels with an activity type protect.

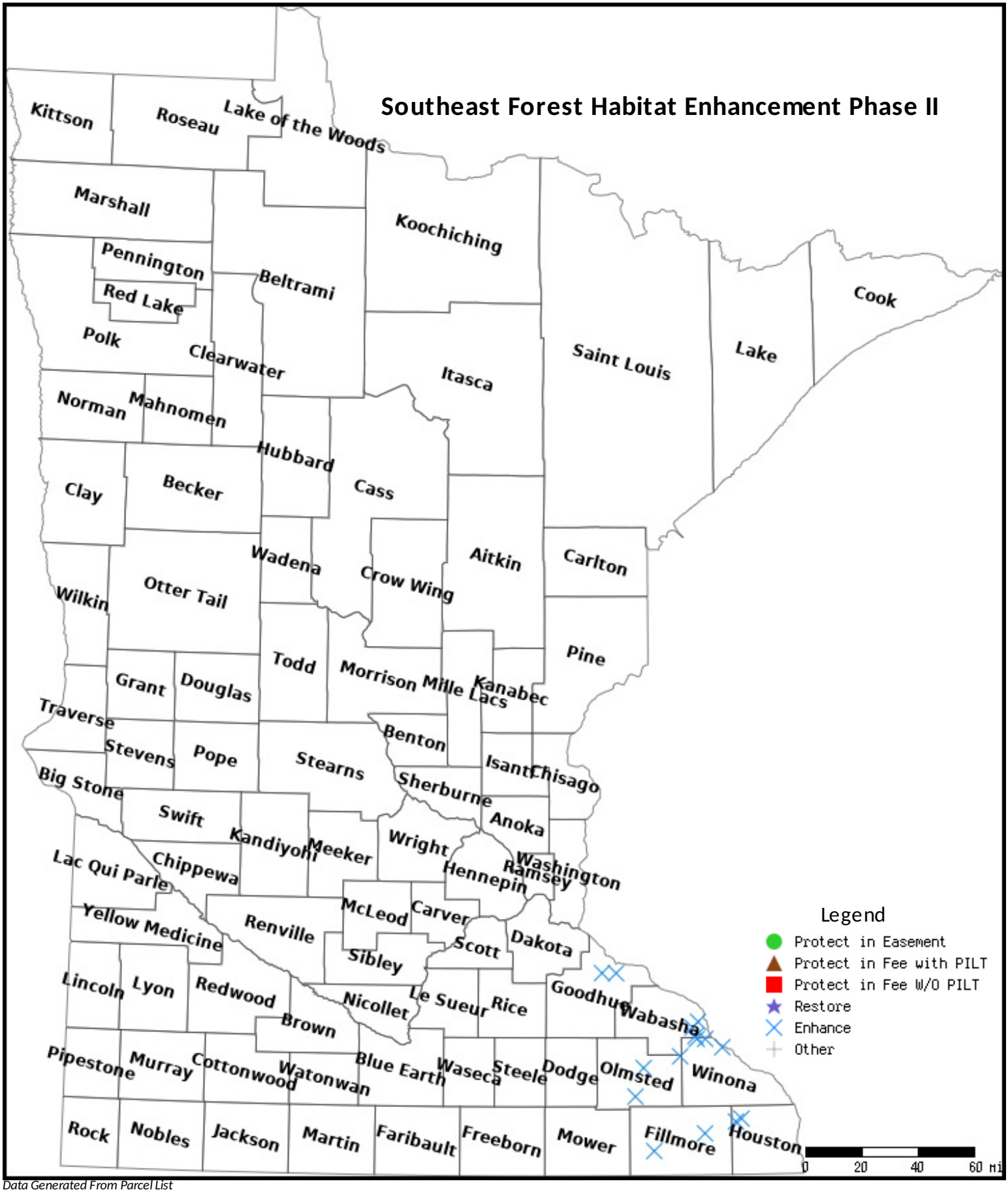
Section 2a - Protect Parcel with Bldgs

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