



Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2020 Accomplishment Plan

General Information

Date: 04/06/2021

Project Title: Southeast Forest Habitat Enhancement Phase II

Funds Recommended: \$1,000,000

Legislative Citation: ML 2020, Ch. 104, Art. 1, Sec. 2, subd 3(e)

Appropriation Language: \$1,000,000 the second year is to the commissioner of natural resources to restore and enhance forests in southeastern Minnesota. A list of proposed land enhancements must be provided as part of the required accomplishment plan.

Manager Information

Manager's Name: Greg Hoch

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Location Information

County Location(s): Wabasha, Houston, Goodhue, Fillmore, Olmsted and Winona.

Eco regions in which work will take place:

- Metro / Urban
- Southeast Forest

Activity types:

- Restore
- Enhance

Priority resources addressed by activity:

- Wetlands
- Prairie
- Forest
- Habitat

Narrative

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 plan address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species?

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

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 two sections of the Minnesota Statewide Conservation and Preservation Plan are most applicable to this project?

- H1 Protect priority land habitats

- LU10 Support and expand sustainable practices on working forested lands

Which two 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

Does this program include leveraged funding?

No

Per MS 97A.056, Subd. 24, Please explain 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.

Non-OHF Appropriations

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.

Actions 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

Requirements

If funded, this program 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

Where does the activity take place?

- WMA
- State Forests

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program?

No

Timeline

Activity Name	Estimated Completion Date
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

Budget

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

Totals

Item	Funding Request	Antic. Leverage	Leverage Source	Total
Personnel	-	-	-	-
Contracts	\$827,300	-	-	\$827,300
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	-	-	-	-
Professional Services	-	-	-	-
Direct Support Services	\$14,300	-	-	\$14,300
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	\$158,400	-	-	\$158,400
DNR IDP	-	-	-	-
Grand Total	\$1,000,000	-	-	\$1,000,000

Amount of Request: \$1,000,000

Amount of Leverage: -

Leverage as a percent of the Request: 0.0%

DSS + Personnel: \$14,300

As a % of the total request: 1.43%

Easement Stewardship: -

As a % of the Easement Acquisition: -

How will this program accommodate the reduced appropriation recommendation 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.

Describe and explain leverage source and confirmation of funds:

Contracts

What is included in the contracts line?

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

Direct Support Services

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.

Federal Funds

Do you anticipate federal funds as a match for this program?

No

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	0	0	141	0	141
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	2,909	0	2,909
Total	0	0	3,050	0	3,050

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	\$255,400	-	\$255,400
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	\$744,600	-	\$744,600
Total	-	-	\$1,000,000	-	\$1,000,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	0	141	0	0	141
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	2,909	0	0	2,909
Total	0	0	3,050	0	0	3,050

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	\$255,400	-	-	\$255,400
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	\$744,600	-	-	\$744,600
Total	-	-	\$1,000,000	-	-	\$1,000,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	\$1,811	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	-	-	\$255	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	\$1,811	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State	-	-	-	-	-

PILT Liability					
Protect in Easement	-	-	-	-	-
Enhance	-	-	\$255	-	-

Target Lake/Stream/River Feet or Miles

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.

Parcels

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.

Parcel Information

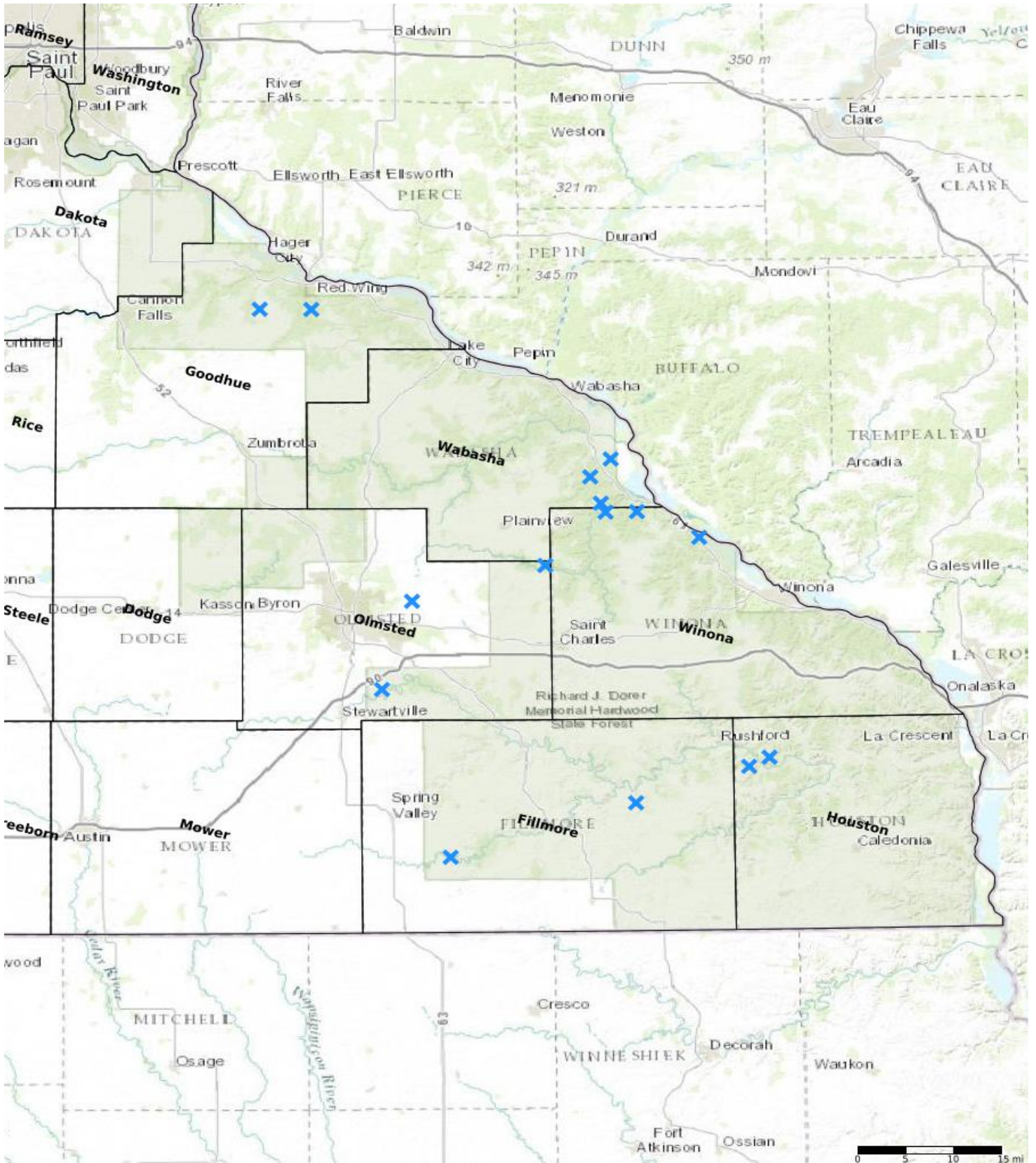
Sign-up Criteria?

No

Explain the process used to identify, prioritize, and select the parcels on your list:

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Rochester Area Wildilfe Management Areas	Fillmore	10212221	0	\$0	Yes
Richard J Dorer Memorial Forest	Fillmore	10309221	0	\$0	Yes
Richard J Dorer Memorial Forest	Goodhue	11214207	0	\$0	Yes
Rochester Area Wildilfe Management Areas	Goodhue	11215208	0	\$0	Yes
Richard J Dorer Memorial Forest	Houston	10407227	0	\$0	Yes
Rochester Area Wildilfe Management Areas	Houston	10407232	0	\$0	Yes
Richard J Dorer Memorial Forest	Olmsted	10513217	0	\$0	Yes
Whitewater Wildlife Management Area	Olmsted	10711201	0	\$0	Yes
Rochester Area Wildlife Management Areas	Olmsted	10713226	0	\$0	Yes
Rochester Area Wildilfe Management Areas	Wabasha	10910201	0	\$0	Yes
Richard J Dorer Memorial Forest	Wabasha	10910215	0	\$0	Yes
Whitewater Wildlife Management Area	Wabasha	10910235	0	\$0	Yes
Whitewater Wildlife Management Area	Winona	10810201	0	\$0	Yes
Rochester Area Wildilfe Management Areas	Winona	10808221	0	\$0	Yes
Richard J Dorer Memorial Forest	Winona	10809204	0	\$0	Yes



- Protect in Easement
- ▲ Protect in Fee with PILT
- Protect in Fee W/O PILT
- ★ Restore
- ✕ Enhance
- ⊕ Other

Parcel Map
Southeast Forest Habitat Enhancement Phase II
(Data Generated From Parcel List)