

# Lessard-Sams Outdoor Heritage Council

## Laws of Minnesota 2020 Accomplishment Plan



**Date:** December 17, 2019

**Program or Project Title:** Minnesota Trout Unlimited Coldwater Fish Habitat Enhancement and Restoration, Phase 12

**Funds Recommended:** \$ 1,719,000

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

**Appropriation Language:**

**County Locations:** Cook, Hubbard, Lake, and Olmsted.

**Eco regions in which work will take place:**

- Forest / Prairie Transition
- Northern Forest
- Southeast Forest

**Activity types:**

- Enhance

**Priority resources addressed by activity:**

- Forest
- Habitat

### Abstract:

Minnesota Trout Unlimited will enhance and restore habitat for fish and wildlife in and along priority coldwater streams located on existing conservation easements and public lands around the state. Trout streams are a relatively scarce resource and increasing threats to them require accelerating habitat work to reduce the backlog of degraded stream reaches. Outcomes will be maximized by improving the connectivity of habitat and fish and wildlife populations. Timely maintenance on old projects will ensure habitat outcomes continue for many years.

### Design and scope of work:

Just six percent of Minnesota's streams are capable of supporting any trout, and many have degraded habitat which severely limits their productivity. Even where riparian corridors protect streams from future harm, past habitat degradation cannot be reversed without active enhancement or restoration. Minnesota Trout Unlimited ("MNTU") proposes to directly enhance or restore degraded habitat on priority streams with existing protections under the Aquatic Management Area system or public ownership. We propose to restore or enhance habitat in and along these public waters (and counties):

1. Split Rock River (Lake);
2. Baptism River (Lake);
3. Manitou River (Lake);
4. Cook County Trout Stream Pilot (Cook);

5. Southeast MN streams (numerous counties);
6. Numerous streams on prioritized maintenance list (statewide).

If contracting efficiencies or leveraged funding permits us to we will extend project lengths or work on additional streams.

Individual project descriptions and other detail is provided in an attachment.

Goals and scope of work.

The goals of projects are to increase the carrying capacity and trout population of the stream, increase angling access and participation, improve water quality and provide other benefits to aquatic and terrestrial wildlife. Each project will accomplish one or more of these objectives: (a) increase adult trout abundance, (b) reduce stream bank erosion and associated sedimentation downstream, (c) reconnect the stream to its floodplains to reduce negative impacts from severe flooding, (d) increase natural reproduction of trout and other aquatic organisms, (e) increase habitat for invertebrates and non-game species, (f) improve connectivity of habitat along aquatic and riparian (terrestrial) corridors, (g) improve riparian forests as appropriate, (h) improve angler access and participation, and (i) protect productive trout waters from invasive species. The scope of work and methods utilized vary by project and are discussed in the individual project descriptions provided in the attachment.

How priorities were set.

MNTU focuses on those watersheds likely to continue to support viable, fishable populations of naturally reproducing trout and steelhead fifty years and more from now. Work is done only where degraded habitat is a limiting factor for a quality, sustainable fishery. Priority locations are determined using MNTU members' knowledge of watersheds, MNDNR management plans and surveys, other habitat and conservation planning efforts, consultations with MNDNR professionals, and science based criteria. All things being equal, we consider the potential to draw new anglers outdoors, increase public awareness, engage landowners in conservation, foster partnerships, and increase public support for OHF projects.

Stakeholder support.

We continue receiving strong support from landowners, rural communities, and local civic and sporting organizations. We will continue gathering local input and developing partnerships in the planning and implementation stages. Landowners typically become very enthusiastic partners.

## **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 projects will restore or enhance degraded habitat for fish and wildlife in and along coldwater streams and rivers which historically supported naturally reproducing trout or steelhead populations highly valued by generations of anglers. While trout are the apex predator and key indicator species in coldwater systems, a host of rare aquatic species are uniquely associated with these systems. Well-functioning coldwater aquatic ecosystem are far fewer in number than the 6% of Minnesota's total stream and river miles which theoretically can still support trout. Even many streams considered to be the best remaining trout streams have badly degraded segments which disrupt connectivity and have significant impacts on the productivity and long-term resilience and sustainability of the overall trout population. Streams face growing threats from warming temperatures, increased frequency of severe flooding, and rising demand for groundwater extraction from the aquifers which supply vitally important cold water inputs. The proposed projects are focused on streams and stream segments which will benefit from improved connectivity and help ensure Minnesota retains at least some high quality coldwater fisheries for future generations. A portion of an appropriation would be used to maintain or repair past projects to ensure continuing habitat benefits.

## **Describe the science based planning and evaluation model used:**

In selecting project sites, MNTU reviews MNDNR watershed specific fisheries management plans and other conservation planning efforts, consults with MNDNR professionals, and applies ranking criteria developed by the MNDNR. Projects must have the potential to increase the carrying capacity (fish numbers), the streams have natural reproduction, and the public have access to them. Improving the connectivity of good aquatic and riparian habitat is an important consideration and the projects are selected to expand or connect gaps in these corridors. We are increasingly targeting stream segments which build off earlier habitat or protection work in the same stream or connected watershed.

## **Which sections of the Minnesota Statewide Conservation and Preservation Plan are applicable to this program:**

- H3 Improve connectivity and access to recreation
- H6 Protect and restore critical in-water habitat of lakes and streams

## Which other plans are addressed in this program:

- Driftless Area Restoration Effort
- Strategic Plan for Coldwater Resources Management in Southeastern Minnesota

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

### Forest / Prairie Transition:

- Protect, enhance, and restore wild rice wetlands, shallow lakes, wetland/grassland complexes, aspen parklands, and shoreland that provide critical habitat for game and nongame wildlife

### Northern Forest:

- Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas

### Southeast Forest:

- Protect, enhance, and restore habitat for fish, game, and nongame wildlife in rivers, cold-water streams, and associated upland habitat

## Relationship to other funds:

- Not Listed

## Does this program include leverage in funds:

Yes

We will leverage private funding of Trout Unlimited ("TU"), which TU will contribute to cover a majority of its direct support service costs. TU members and chapters will donate in-kind labor/services. Several partners (MNDNR, SWCD offices, etc.) will likely contribute significant amounts of time and/or dollars assisting on several projects. We also hope to leverage substantial federal or other funding, including for fish passage/culvert replacement work in the Lake Superior basin.

## 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:

The request is not supplanting or a substitution for previous funding. The work proposed for funding is for new or additional work.

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

Not Listed

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

MNTU's coldwater aquatic habitat restoration and enhancement projects are designed for long-term ecological and hydraulic stability. Construction contracts include maintenance/warranty provisions to ensure habitat work is well established. After this period and once riparian vegetation well established, major maintenance work is not typically required in order to sustain the habitat outcomes for decades. Reconnected floodplains allow floodwater to quickly spread out and dissipate energy, reducing the destructive impact of a flood. Flood waters typically flatten streamside vegetation temporarily and do not damage the in-stream structures. The tenfold increase in trout populations and threefold increase in large trout which are common following completion of a southeast Minnesota project, are typically sustainable through natural reproduction.

We anticipate that long-term monitoring of the integrity of the improvements will be done in conjunction with routine inspections and biological monitoring conducted by local MNDNR staff, MNTU members, or landowners as appropriate. This monitoring will not require separate OHF or other constitutional funding. In the event that there are other maintenance costs, potential sources of funding and volunteer labor include MNTU, MNDNR AMA maintenance funding, and other grant funds and organizations. MNTU volunteers will help

provide long-term monitoring and periodic labor.

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

Year	Source of Funds	Step 1	Step 2	Step 3
One year after the grant ends	MNTU volunteers or part of agency staff visits.	Inspect structural elements and vegetation.	If needed, alert DNR and develop action plans.	Conduct maintenance with volunteers and/or contractors if DNR does not.
Every 3 years thereafter	MNTU volunteers and/or agency.	Inspect structural elements and vegetation.	If needed, develop action plan with DNR.	Perform or assist DNR with maintenance if needed.

**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 (AMA, Public Waters, State Forests, State Park)**

**Accomplishment Timeline:**

Activity	Approximate Date Completed
Beginning planning, design and implementation of habitat enhancements	July 2020
Complete implementation of habitat enhancements, including tree and vegetation work	June 2025

**Date of Final Report Submission:** 11/1/2025

**Federal Funding:**

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

**Outcomes:**

**Programs in the northern forest region:**

- Improved aquatic habitat indicators *Measured through surveys of fish, macro invertebrates and/or exposed substrates. Abundance, size structure and species diversity are considered.*

**Programs in forest-prairie transition region:**

- Improved aquatic habitat indicators: Measured through surveys of fish, macro invertebrates and/or exposed substrates. Abundance, size structure and species diversity are considered.

**Programs in southeast forest region:**

- Rivers, streams, and surrounding vegetation provide corridors of habitat *Enhancement of in-stream and riparian corridor habitat creates miles of connected habitat. Outcomes in aquatic life are measured through surveys of fish, macro invertebrates and/or exposed substrates. Abundance, size structure and species diversity are considered.*

# Budget Spreadsheet

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

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

Reduce the length and number of streams to be enhanced.

**Total Amount of Request: \$ 1719000**

## Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$90,000	\$0		\$90,000
Contracts	\$963,000	\$100,000	USFS, USFWS, and other partners	\$1,063,000
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	\$10,000	\$0		\$10,000
Professional Services	\$180,000	\$0		\$180,000
Direct Support Services	\$25,000	\$25,000	Trout Unlimited	\$50,000
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$3,000	\$0		\$3,000
Supplies/Materials	\$448,000	\$100,000	USFS, USFWS, and other partners	\$548,000
DNR IDP	\$0	\$0		\$0
<b>Total</b>	<b>\$1,719,000</b>	<b>\$225,000</b>		<b>\$1,944,000</b>

## Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Habitat Enhancement staff	0.40	5.00	\$90,000	\$0		\$90,000
<b>Total</b>	<b>0.40</b>	<b>5.00</b>	<b>\$90,000</b>	<b>\$0</b>		<b>\$90,000</b>

Amount of Request: \$1,719,000

Amount of Leverage: \$225,000

Leverage as a percent of the Request: 13.09%

DSS + Personnel: \$115,000

As a % of the total request: 6.69%

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

The Direct Support Services requested represents a portion of Trout Unlimited's federal rate, which is approved annually. The requested amount likely represents approximately one third of what we would be eligible to claim based upon DNR approval under an earlier grant agreement. Trout Unlimited is donating the other portion.

**What is included in the contacts line?**

This is for contracted services, including heavy equipment use and labor, on enhancement projects.

**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:**

None

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

Leverage estimates are estimates only. We hope to secure approximately \$200,000 from federal sources to assist with the fish passage barrier removal/culvert replacement work in northeast Minnesota.



## 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	0	212	212
Total	0	0	0	212	212

**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	\$0	\$1,719,000	\$1,719,000
Total	\$0	\$0	\$0	\$1,719,000	\$1,719,000

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

Type	Metro Urban	ForestPrairie	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	96	0	116	212
Total	0	0	96	0	116	212

**Table 4. Total Funding within each Ecological Section**

Type	Metro Urban	ForestPrairie	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	\$573,000	\$0	\$1,146,000	\$1,719,000
Total	\$0	\$0	\$573,000	\$0	\$1,146,000	\$1,719,000

**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	\$0	\$8108

**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	\$5969	\$0	\$9879

*Automatic system calculation / not entered by managers*

**Target Lake/Stream/River Feet or Miles**

17 miles



## 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

Cook

Name	TRDS	Acres	Est Cost	Existing Protection?
Cook County Pilot Stream	06003209	5	\$0	Yes

Hubbard

Name	TRDS	Acres	Est Cost	Existing Protection?
Statewide maintenance (prioritized)	14333212	36	\$0	Yes

Lake

Name	TRDS	Acres	Est Cost	Existing Protection?
Baptism River	05809212	60	\$0	Yes
Manitou River	05907236	10	\$0	Yes
Split Rock River	05409227	6	\$0	Yes

Olmsted

Name	TRDS	Acres	Est Cost	Existing Protection?
Southeast Maintenance and Additional Enhancements	10711226	59	\$0	Yes

### Section 2 - Protect Parcel List

No parcels with an activity type protect.

#### Section 2a - Protect Parcel with Bldgs

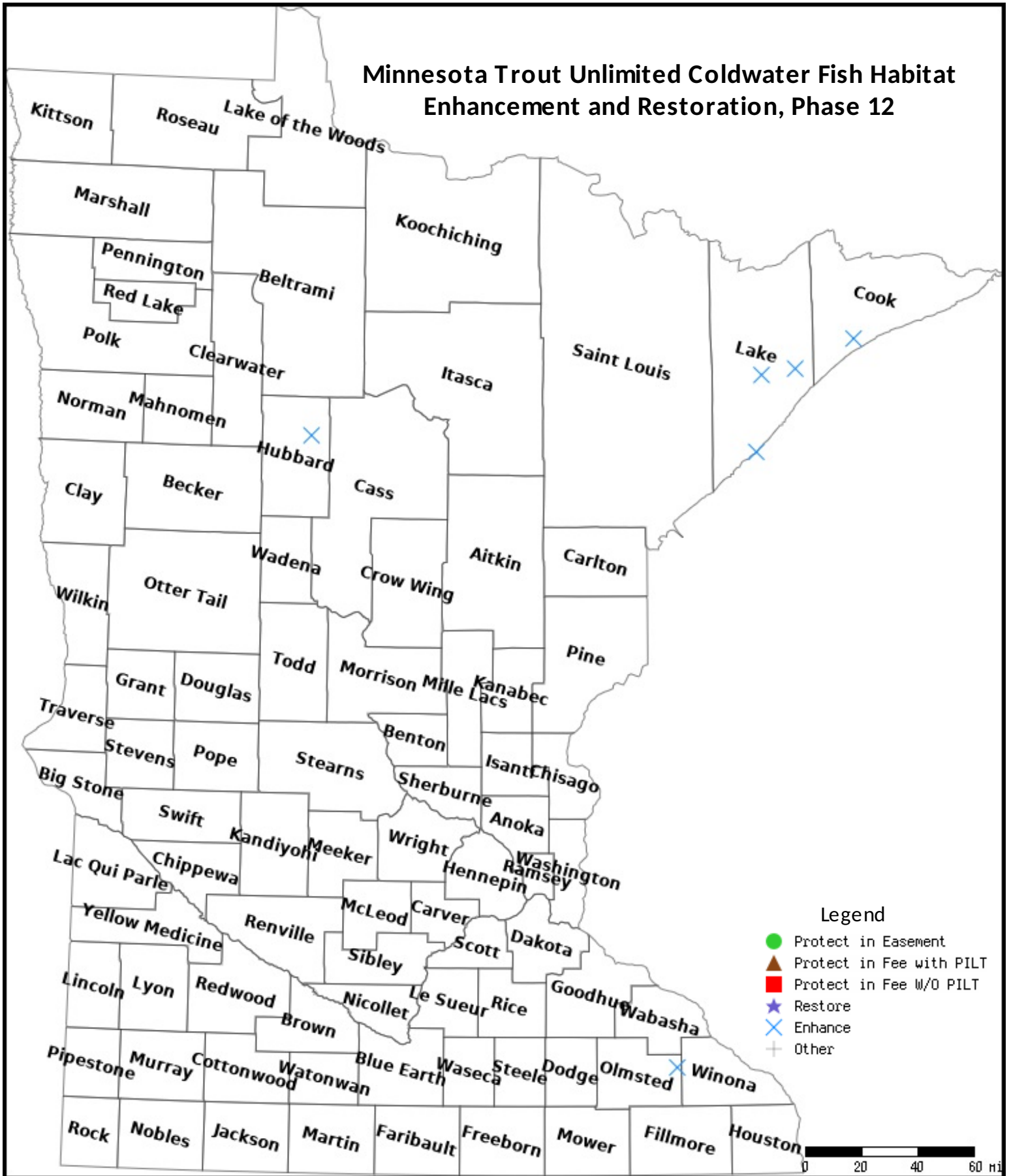
No parcels with an activity type protect and has buildings.

### Section 3 - Other Parcel Activity

No parcels with an other activity type.

# Parcel Map

## Minnesota Trout Unlimited Coldwater Fish Habitat Enhancement and Restoration, Phase 12



Data Generated From Parcel List