

# Lessard-Sams Outdoor Heritage Council

## Laws of Minnesota 2015 Accomplishment Plan



**Date:** October 16, 2014

**Program or Project Title:** Minnesota Trout Unlimited Coldwater Fish Habitat Enhancement - Phase VII

**Funds Recommended:** \$ 1,890,000

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**Legislative Citation:**

**Appropriation Language:**

**County Locations:** Dakota, Fillmore, Lake, and St. Louis.

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

- Metro / Urban
- Northern Forest
- Southeast Forest

**Activity types:**

- Enhance

**Priority resources addressed by activity:**

- Forest
- Habitat

### Abstract:

Minnesota Trout Unlimited volunteers, chapters and partners will enhance habitat for fish, game and wildlife in and along numerous coldwater streams on existing Aquatic Management Areas and other public lands around the state, while leveraging approximately \$3 million for this.

### Design and scope of work:

The problem being addressed.

Minnesota's remaining coldwater streams are under increasing threats. While they are often the highest quality aquatic systems remaining in the state, and prized by both anglers and the general public because of this, many have badly degraded habitat. Given their relatively scarcity, being just six percent of total stream and river miles, this is a conservation issue of statewide importance that requires accelerated investment in projects which enhance or restore this habitat. This year we have a fleeting opportunity to leverage more than \$2 million in other funds and convert isolated bank stabilization efforts in the Duluth area into comprehensive, enduring trout habitat restoration projects.

Minnesota Trout Unlimited ("MNTU") proposes to improve degraded habitat on numerous priority streams located on existing AMAs and public land around the state. Our members have demonstrated the capacity to complete these projects with Fiscal Year 2016 funding

from the Outdoor Heritage Fund (“OHF”). MNTU respectfully proposes to partner with the Lessard-Sams Outdoor Heritage Council and the citizens of Minnesota to enhance habitat in and along the following public waters (in these counties):

1. Amity Creek (St. Louis)
2. East Branch of Amity Creek (St. Louis)
3. West Branch of Amity Creek (St. Louis)
4. Chester Creek (St. Louis)
5. Stewart River (Lake)
6. Vermillion River (Dakota)
7. Root River (Fillmore)
8. Numerous other streams (prioritized vegetation maintenance list)

Individual project descriptions are provided in an attachment.

Goals and scope of work.

The goals of the projects include 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. FY 2016 funded projects will use methods similar to those used on successful projects recently completed by MNTU chapters. MNTU will leverage our experience to optimize project design and implementation. We will also partner with Lake County Land Department as part of a watershed scale project to restore forest cover in riparian areas, improve hydrology and groundwater base flow, and thereby sustain and improve coldwater fisheries in the Stewart River watershed.

In consultation with professionals within the Minnesota Department of Natural Resources (“MNDNR”), MNTU will use the best available stream restoration and coldwater aquatic science to select specific habitat improvement methods for each stream that reflect the distinct characteristics of the watershed and ecological region, address the specific limiting factors (e.g. spawning substrate, adult cover, invertebrate production, etc.), and account for the land use practices.

Objectives: Each projects will accomplish one or more of these objectives: (a) increase adult trout abundance, (b) reduce stream bank erosion and associated sedimentation downstream, (c) reconnect streams to their 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 angler access and participation, and (h) protect productive trout waters from invasive species.

Methods: Habitat enhancement methods typically include: (1) sloping stream banks back to both remove streamside sediments that have previously been transported from uplands areas and better reconnect the stream to its floodplain, (2) removing shallow rooted woody vegetation (invasive box elder, buckthorn, etc.) to enable removal of accumulated sediments, reduce competition with desirable plant and grass species, and allow beneficial energy inputs (sunlight) to reach the streams, (3) stabilizing eroding stream banks, (4) installing overhead bank and other in-stream cover for trout, (5) utilizing soil erosion prevention measures, (6) seeding exposed banks and taking steps to firmly establish vegetation (including using native prairie grasses where appropriate and feasible), (7) improving angling accessibility, (8) fencing riparian corridors where appropriate to facilitate managed grazing and prevent damage from over-grazing, (9) restoring large cover logs to the channels of Northern forested streams to increase deep pool habitat, and (10) planting long lived trees along Northern forested streams to shade and cool the water, and provide a source of future cover logs.

These actions directly enhance physical habitat, and typically increase overall trout abundance, the number of larger trout, and levels of successful natural reproduction. Additional benefits, typically extending many miles downstream from the project, include reduced erosion and sedimentation, cooler water temperatures, improved water quality, and increased connectivity of aquatic and riparian habitat corridors.

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’ extensive knowledge of the 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 of the threats facing coldwater fisheries and watersheds, engage landowners and residents in conservation, foster partnerships, and increase public support for OHF projects.

Urgent conservation opportunities.

The targeted stream segments are no longer providing habitat or clean water benefits, angling opportunities, or other enticements

which increase outdoor recreation and encourage public appreciation and stewardship of aquatic ecosystems. By creating productive fisheries in visible and accessible areas, these projects will increase citizens' use of our coldwater ecosystems, tangibly re-connect Minnesotans to the land and water, foster understanding of threats to them, and motivate citizens to advocate for watershed and water quality improvements.

Stakeholder support.

We continue to receive strong support for these projects from landowners, rural communities (especially since most funding pays local contractors and suppliers for direct construction expenses), and local civic and sporting organizations. We will continue to gather local input and develop partnerships in the planning and implementation stages. Landowners typically become very enthusiastic partners, working side-by-side with TU volunteers, donating materials, and helping secure additional conservation funding.

Budget numbers are estimates only. Construction efficiencies and leveraging funds may permit us to lengthen projects and/or add streams.

## **Crops:**

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

## **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:**

Each of these streams has historically provided good trout habitat, as well as great recreational opportunities for anglers and citizens.

## **What is the nature of urgency and why it is necessary to spend public money for this work as soon as possible:**

Only through funding this year can we seize a once in a lifetime opportunity to leverage more than \$2 million in funding targeted for isolated bank stabilization efforts (which provide little habitat) and convert the dollars and work into nearly 3 miles of enduring, high quality brook trout habitat restoration.

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

MNTU reviews DNR watershed specific fisheries management plans and other conservation planning efforts, consults with DNR area managers, and applies ranking criteria developed by the DNR. Projects must have the potential to increase the carrying capacity (fish numbers), the streams have natural reproduction, and have public access.

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

- 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 proposal:**

- Long Range Plan for Fisheries Management
- Strategic Plan for Coldwater Resources Management in Southeastern Minnesota

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

### **Metro / Urban:**

- Enhance and restore coldwater fisheries systems

### **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

## How does this proposal accelerate or supplement your current efforts in this area:

While our members and chapters have been planning, fundraising for and executing quality fish habitat restoration and enhancement projects around Minnesota for four decades, the availability of funds to hire heavy equipment operators and purchase materials remains the limiting factor in the amount of habitat work we can complete. Each discrete project is an additional “stand alone” project which supplements the amount of habitat work which MNTU chapters have traditionally been able to complete. Our partnership with the L-SOHC and taxpayers has dramatically increased the amount of degraded habitat we are restoring and enhancing for the benefit of all Minnesotans.

Members play vital roles in planning, designing, overseeing, directing and providing manual labor on what are essentially construction projects, but we must hire excavation contractors and purchase rock, lumber and other materials put into the project sites. The knowledge, passion and commitment of our volunteers continue to increase, as does their successful acceleration of the pace of habitat improvement. To ensure we finish what we start, we continue developing a pool of qualified external contractors and consultants to assist with critical tasks.

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

Appropriation Year	Source	Amount
n/a	n/a - all are new projects	0

## 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. Once in-stream work is completed and riparian vegetation well established, no significant maintenance is usually required in order to sustain the habitat outcomes for several 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.

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
periodic - every 5 years	MNTU, DNR, AMA maintenance	inspection	consultation with DNR	assist DNR with maintenance or seeking funding

## Activity Details:

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 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, County/Municipal, Public Waters)**

## Accomplishment Timeline:

Activity	Approximate Date Completed
Begin project planning, design and permitting work following a July 2015 appropriation.	Begin July 2015
Begin habitat enhancements during 2016 fieldwork season, following completion of design, permit approvals and contracting.	2016 fieldwork season
Complete riparian and in-stream habitat enhancements	October 2018
Cutting, burning and/or spot spraying vegetation to ensure grasses and other appropriate vegetation becomes well established.	summers 2018 & 2019
Tree plantings in riparian corridors of northern project sites in the May-June following in-stream work	By July 2018

**Date of Final Report Submission:** 8/31/2020

## Federal Funding:

Do you anticipate federal funds as a match for this program - **Yes**

Are the funds confirmed - **No**

What is the approximate date you anticipate receiving confirmation of the federal funds - **2015**

## Outcomes:

### Programs in the northern forest region:

- Improved aquatic habitat indicators *Fish, macro invertebrate and substrate surveys*

### Programs in metropolitan urbanizing region:

- Improved aquatic habitat indicators *Fish, macro invertebrate and substrate surveys*

### Programs in southeast forest region:

- Rivers, streams, and surrounding vegetation provide corridors of habitat *Improved aquatic habitat indicators: Fish, macro invertebrate and substrate 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 recommendation from the original proposed requested amount

The Clearwater River project had to be cut, but we intend to include it in a future request for funding. OHF funds for the Amity Creek project was reduced by approximately 15%, but substantial leveraged funds will ensure a quality project nonetheless.

**Total Amount of Request: \$ 1890000**

## Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$90,000	\$0		\$90,000
Contracts	\$1,051,000	\$1,540,000	BWSR/Duluth, SWCD, City of Preston, DNR	\$2,591,000
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	\$5,000	\$0		\$5,000
Professional Services	\$63,000	\$0		\$63,000
Direct Support Services	\$0	\$0		\$0
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$10,000	\$0		\$10,000
Supplies/Materials	\$671,000	\$1,300,000	BWSR/Duluth, SWCD, City of Preston	\$1,971,000
DNR IDP	\$0	\$0		\$0
Total	\$1,890,000	\$2,840,000		\$4,730,000

## Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
program manager	0.40	3.00	\$50,000	\$0		\$50,000
watershed coordinator	0.10	3.00	\$10,000	\$0		\$10,000
program assistant	0.25	3.00	\$30,000	\$0		\$30,000
Total	0.75	9.00	\$90,000	\$0		\$90,000

Amount of Request: \$1,890,000

Amount of Leverage: \$2,840,000

Leverage as a percent of the Request: 150.26%

## 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	76	200	276
Total	0	0	76	200	276

**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	\$84,000	\$1,806,000	\$1,890,000
Total	\$0	\$0	\$84,000	\$1,806,000	\$1,890,000

**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	64	0	89	0	123	276
Total	64	0	89	0	123	276

**Table 4. Total Requested 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	\$360,000	\$0	\$680,000	\$0	\$850,000	\$1,890,000
Total	\$360,000	\$0	\$680,000	\$0	\$850,000	\$1,890,000

**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	\$1105	\$9030

**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	\$5625	\$0	\$7640	\$0	\$6911

**Target Lake/Stream/River Feet or 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

#### Dakota

Name	TRDS	Acres	EstCost	Existing Protection?
Vermillion River	11418229	30	\$0	Yes

#### Fillmore

Name	TRDS	Acres	EstCost	Existing Protection?
Root River	10210206	17	\$0	Yes

#### Lake

Name	TRDS	Acres	EstCost	Existing Protection?
Stewart River	05311215	7	\$0	Yes
Stewart River	05411226	84	\$0	Yes

#### St. Louis

Name	TRDS	Acres	EstCost	Existing Protection?
Amity Creek	05113232	6	\$0	Yes
Chester Creek	05014215	8	\$0	Yes
East Branch, Amity Creek	05113231	7	\$0	Yes
West Branch, Amity Creek	05113231	7	\$0	Yes

### Section 2 - Protect Parcel List

No parcels with an activity type protect.

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

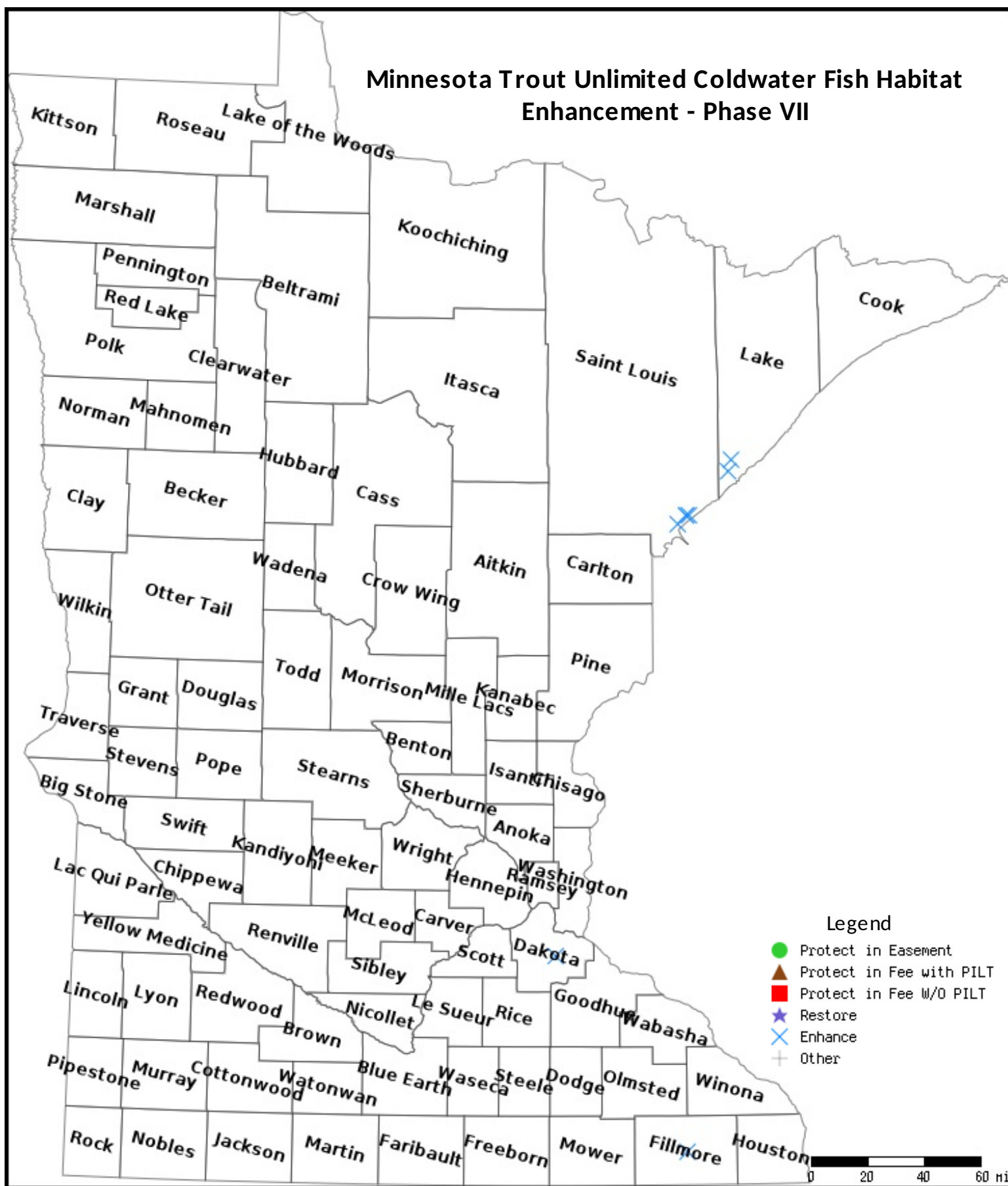
No parcels with an activity type protect and has buildings.

### Section 3 - Other Parcel Activity

No parcels with an other activity type.

## Parcel Map

### Minnesota Trout Unlimited Coldwater Fish Habitat Enhancement - Phase VII



Data Generated From Parcel List