



Lessard-Sams Outdoor Heritage Council

Minnesota Statewide Trout Habitat Enhancement Laws of Minnesota 2024 Accomplishment Plan

General Information

Date: 06/26/2024

Project Title: Minnesota Statewide Trout Habitat Enhancement

Funds Recommended: \$2,308,000

Legislative Citation: ML 2024, Ch. 106, Art. 1, Sec. 2, Subd. 5(r)

Appropriation Language: \$2,308,000 the second year is to the commissioner of natural resources for an agreement with Trout Unlimited to restore and enhance habitat for trout and other species in and along coldwater rivers, lakes, and streams throughout Minnesota.

Manager Information

Manager's Name: John Lenczewski

Title: Executive Director

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Location Information

County Location(s): Lake, Fillmore, Winona, Clearwater, St. Louis, Goodhue, Houston, Olmsted, Cass and Benton.

Eco regions in which work will take place:

- Northern Forest
- Southeast Forest
- Forest / Prairie Transition

Activity types:

- Enhance

Priority resources addressed by activity:

- Habitat

Narrative

Abstract

Minnesota Trout Unlimited will enhance degraded habitat for fish and diverse wildlife in and along priority trout streams with existing permanent protection. Increasing threats to these relatively scarce resources require accelerating habitat work to reduce the backlog of degraded stream reaches and buffer streams from the increased frequency and intensity of large rainfall and flooding. In the process of restoring habitat, we also increase climate resilience by reconnecting streams to their floodplains and removing barriers to fish movement to colder water. Outcomes include increased fish and wildlife populations, and more opportunities for anglers to access quality ecosystems close to home.

Design and Scope of Work

The popularity of trout fishing in Minnesota continues to grow. Anglers applaud our recent habitat projects and want to see many more undertaken. Badly degraded habitat on those trout streams that are most accessible to the public severely limits their productivity and public enjoyment. Minnesota Trout Unlimited (“MNTU”) will directly enhance or restore degraded habitat on priority streams with existing protections under the Aquatic Management Area system or other public ownership. We propose to restore or enhance habitat in and along these public waters (in these counties):

1. Keene Creek (St. Louis);
2. Sucker Brook (Clearwater);
3. Stoney Brook (Cass);
4. Baptism, Manitou & Split Rock Rivers (Lake);
5. Little Rock Creek (Benton);
6. Little Cannon River (Goodhue);
7. Garvin Brook (Winona);
8. Rice Creek (Fillmore);
9. Mill Creek (Fillmore);
10. Numerous streams statewide (numerous counties); and
11. Additional Enhancement of older projects statewide (numerous counties).

Individual project descriptions are provided in an attachment. Some of the projects listed above may be reduced in scale or dropped due to the lower funding level recommended. However, if substantial other funding is leveraged projects reduced in scale or dropped may yet be completed.

Goals and scope of work:

The goals of projects are to increase the carrying capacity and trout population of the stream, increase climate resilience, increase angling access and participation, improve water quality, and provide other benefits to aquatic, terrestrial, and avian 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 forest health and function, (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 site conditions and are discussed in the individual project

descriptions provided in an attachment.

How priorities were set:

MNTU focuses habitat enhancement and restoration efforts on those watersheds likely to continue to support viable, fishable populations of naturally reproducing trout 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 through consultations with MNDNR professionals, MNDNR management plans and surveys, other habitat and conservation planning efforts, MNTU members' knowledge of watersheds, 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 anglers, 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 are consistently enthusiastic partners.

Explain how the plan addresses habitat protection, restoration, and/or enhancement for fish, game & wildlife, including threatened or endangered species conservation

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 populations highly valued by generations of anglers. While trout are the apex predator and key indicator species for the health of coldwater ecosystems, a host of rare aquatic and riparian species are uniquely associated with these systems. Well-functioning coldwater aquatic ecosystems are far fewer in number than the 6% of Minnesota's 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 significantly impact 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 inputs of vitally important cold water. 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 small portion of an appropriation would be used to maintain or add enhancements to past projects to ensure continuing habitat benefits.

What are the elements of this plan that are critical from a timing perspective?

Although Minnesota's trout streams are among the highest quality aquatic systems remaining in the state and prized by anglers and the general public because of this, a majority have badly degraded habitat. The impacts of leaving degraded segments untreated extends throughout the stream. Degraded sections are no longer providing habitat, clean water benefits, angling opportunities, or other enticements which increase public appreciation and stewardship of aquatic ecosystems. Even where riparian corridors are protected, past habitat degradation cannot be reversed without active intervention. A warming climate and more frequent heavy rains require action now to increase floodplain connectivity and thereby increase durability of in-stream habitat. The state must continue restoring and enhancing degraded habitat to safeguard and improve the productivity and sustainability of these rare fisheries and aquatic ecosystems for future generations to enjoy. Timely maintenance on older projects will extend habitat function and maximize outcomes well into the future.

Describe how the plan expands habitat corridors or complexes and/or addresses habitat fragmentation:

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. Projects in northeast Minnesota to remove passage barriers for trout and other aquatic organisms reverses fragmentation and increases long term resilience of trout and other wildlife.

Which top 2 Conservation Plans referenced in MS97A.056, subd. 3a are most applicable to this project?

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

Explain how this plan will uniquely address habitat resilience to climate change and its anticipated effects on game, fish & wildlife species utilizing the protected or restored/enhanced habitat this proposal targets.

Our projects directly increase climate resilience by restoring streams' access to more of their floodplains. This allows rising streams to quickly spread flood energy outside the stream channel, preserving in-stream habitat and minimizing impacts on fish and wildlife. Projects are also designed using modeling of the increased flows predicted by NOAA climate projections. Reconnecting habitat also ensures fish and wildlife can move to areas to escape low, warm water.

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

Outcomes

Programs in forest-prairie transition region:

- Protected, restored, and enhanced aspen parklands and riparian areas ~ *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 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 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.*

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.

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

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 is well established, major maintenance work is not typically required in order to sustain the habitat outcomes for decades. Reconnected floodplains allow flood water 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 long-term 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 MNDNR staff, MNTU members, and 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.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
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.
One year after 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.

Provide an assessment of how your program celebrates cultural diversity or reaches diverse communities in Minnesota, including reaching low- and moderate-income households:

Our habit projects provide easy public access to fishable trout populations in relatively small streams. These streams are accessible to diverse communities, including low- and moderate-income households. They can be fished from the streambanks and no expensive boat or waders are required. Some projects, such as the Keene

Creek project, are located in neighborhoods with a high percentage of low income households. In southeast MN there are no natural lakes, so anglers of all economic and cultural backgrounds focus angling on the region’s accessible, productive trout streams.

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 or on lands to be acquired in this program?

Yes

Where does the activity take place?

- AMA
- Permanently Protected Conservation Easements
- County/Municipal
- Public Waters
- State Forests
- WMA

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program, either by the proposer or the end owner of the property, outside of the initial restoration of the land?

No

Will insecticides or fungicides (including neonicotinoid and fungicide treated seed) be used within any activities of this program either in the process of restoration or use as food plots?

No

Timeline

Activity Name	Estimated Completion Date
Complete implementation of habitat enhancements, including tree plantings and vegetation work.	June 2029
Begin planning, design and implementation of habitat enhancements.	July 2024

Date of Final Report Submission: 11/01/2029

Availability of Appropriation: Subd. 7.

Availability of Appropriation

(a) Money appropriated in this section may not be spent on activities unless they are directly related to and necessary for a specific appropriation and are specified in the accomplishment plan approved by the Lessard-Sams Outdoor Heritage Council. Money appropriated in this section must not be spent on indirect costs or other institutional overhead charges that are not directly related to and necessary for a specific appropriation. Money

appropriated for fee title acquisition of land may be used to restore, enhance, and provide for public use of the land acquired with the appropriation. Public-use facilities must have a minimal impact on habitat in acquired lands.

(b) Money appropriated in this section is available as follows:

- (1) money appropriated for acquiring real property is available until June 30, 2028;
- (2) money appropriated for restoring and enhancing land acquired with an appropriation in this section is available for four years after the acquisition date with a maximum end date of June 30, 2032;
- (3) money appropriated for restoring or enhancing other land is available until June 30, 2029;
- (4) notwithstanding clauses (1) to (3), money appropriated for a project that receives at least 15 percent of its funding from federal funds is available until a date sufficient to match the availability of federal funding to a maximum of six years if the federal funding was confirmed and included in the original approved draft accomplishment plan; and
- (5) money appropriated for other projects is available until the end of the fiscal year in which it is appropriated.

Budget

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

Totals

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$195,000	-	-	\$195,000
Contracts	\$935,000	\$160,000	USFWS, NRCS and other partners	\$1,095,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$15,000	-	-	\$15,000
Professional Services	\$500,000	-	-	\$500,000
Direct Support Services	\$93,000	-	-	\$93,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$5,000	-	-	\$5,000
Supplies/Materials	\$565,000	\$160,000	USFWS, NRCS and other partners	\$725,000
DNR IDP	-	-	-	-
Grand Total	\$2,308,000	\$320,000	-	\$2,628,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
Habitat Enhancement staff	0.5	5.0	\$195,000	-	-	\$195,000

Amount of Request: \$2,308,000

Amount of Leverage: \$320,000

Leverage as a percent of the Request: 13.86%

DSS + Personnel: \$288,000

As a % of the total request: 12.48%

Easement Stewardship: -

As a % of the Easement Acquisition: -

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

Several of the projects will be dropped (Garvin Brook; Little Rock Creek) and others reduced in scale.

Detail leverage sources and confirmation of funds:

Leverage estimates are estimates only. TU will contribute funding to cover a portion of its direct support service costs. Members will donate in-kind labor. Partners will likely contribute time or dollars. Reduced funding requires cutting several southeast projects, which may significantly reduce the chance of NRCS funding.

Does this project have the ability to be scalable?

Yes

If the project received 50% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?

We anticipate that acre amounts could be proportionately reduced.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?

Personnel and DSS expenses would be adjusted downward but not strictly proportionally. Some projects with lower construction costs can require as much or more staff time as projects with much larger construction costs. Program oversight costs also remain consistent regardless of appropriation amount.

Personnel

Has funding for these positions been requested in the past?

Yes

Contracts

What is included in the contracts line?

This is for contracted services on habitat enhancement construction projects, and includes contractor work with heavy equipment, other construction site labor, tree planting labor (site preparation, planting, protection), and more.

Professional Services

What is included in the Professional Services line?

- Design/Engineering
- Other : Permitting and construction oversight.

Travel

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.

I understand and agree that lodging, meals, and mileage must comply with the current MMB Commissioner Plan:

Yes

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 Direct Support Services requested represents a portion of Trout Unlimited's federal rate, which is approved

annually. The requested amount is less than we would be eligible to claim based upon DNR approval of earlier grant agreements. Trout Unlimited is donating the other portion.

Other Equipment/Tools

Give examples of the types of Equipment and Tools that will be purchased?

Primarily hand tools for cutting trees and brush, raking and seeding areas, treating invasive plants, etc. Also may include safety equipment for staff and MNTU volunteer laborers.

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	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	135	135
Total	-	-	-	135	135

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	\$2,308,000	\$2,308,000
Total	-	-	-	\$2,308,000	\$2,308,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	44	-	91	135
Total	-	-	44	-	91	135

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	\$1,123,000	-	\$1,185,000	\$2,308,000
Total	-	-	\$1,123,000	-	\$1,185,000	\$2,308,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	-	-	-	\$17,096

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-

Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	\$25,522	-	\$13,021

Target Lake/Stream/River Feet or Miles

10

Parcels

Parcel Information

Sign-up Criteria?

No

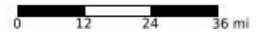
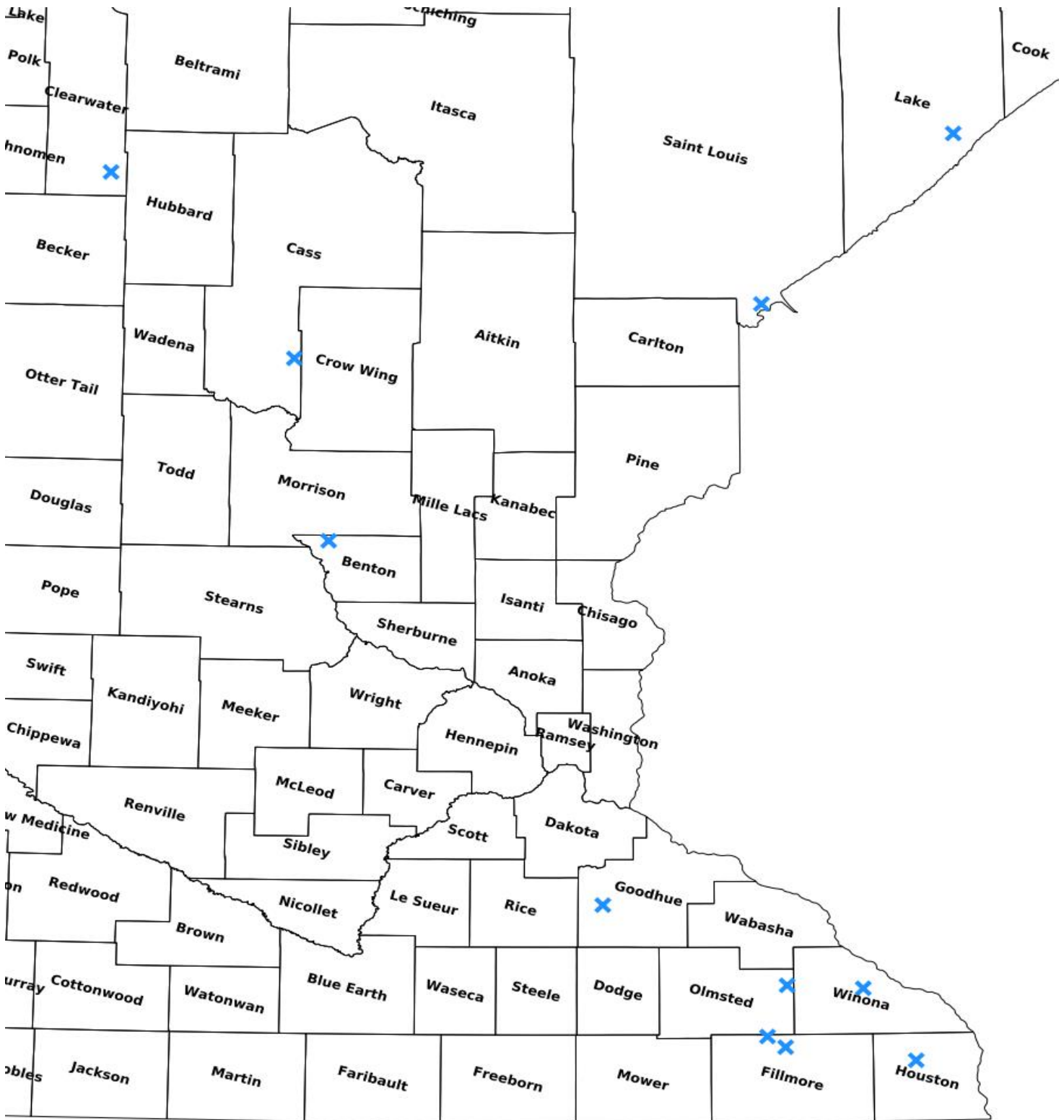
Explain the process used to identify, prioritize, and select the parcels on your list:

MNTU focuses habitat enhancement and restoration efforts on those watersheds likely to continue to support viable, fishable populations of naturally reproducing trout 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 through consultations with MNDNR professionals, MNDNR management plans and surveys, other habitat and conservation planning efforts, MNTU members' knowledge of watersheds, and science-based criteria.

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection	Description
Little Rock Creek	Benton	03831210	0	\$0	Yes	Enhance habitat for wild trout in rare St Cloud area trout stream.
Stoney Brook	Cass	13529208	12	\$0	Yes	Enhance brook trout stream near Gull Lake
Sucker Brook	Clearwater	14436233	3	\$0	Yes	Enhance 1,500 reach of brook trout stream adjacent to Itasca State Park.
Rice Creek	Fillmore	10411223	4	\$0	Yes	Enhance last 2,000' with public access.
Mill Creek	Fillmore	10411206	4	\$0	Yes	Enhance habitat on 2,900' reach in and adjacent to city park.
Little Cannon River	Goodhue	11018201	4	\$0	Yes	Enhance habitat on 1,660' where only public access on Little Cannon River.
Numerous streams statewide	Houston	10306210	36	\$0	Yes	Enhance habitat primarily through riparian vegetation management.
Baptism, Manitou & Split Rock	Lake	05707219	36	\$0	Yes	Enhance and reconnect habitat for native brook trout reconnecting 3 miles
Southeast Maintenance & Additional Enhancements	Olmsted	10711226	32	\$0	Yes	Maintenance and additional enhancements on older projects to ensure continued habitat benefits for years to come.
Keene Creek	St. Louis	04915212	4	\$0	Yes	Enhance habitat for wild brook trout in urban neighborhoods within City of Duluth.
Garvin Brook	Winona	10708234	0	\$0	Yes	Enhance 2,500' section for wild brown trout.

Parcel Map



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