



Lessard-Sams Outdoor Heritage Council

Minnesota Statewide Trout Habitat Enhancement
ML 2024 Request for Funding

General Information

Date: 06/23/2023

Proposal Title: Minnesota Statewide Trout Habitat Enhancement

Funds Requested: \$2,950,000

Confirmed Leverage Funds: \$20,000

Is this proposal Scalable?: Yes

Manager Information

Manager's Name: John Lenczewski

Title: Executive Director

Organization: Minnesota Trout Unlimited

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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.

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 proposal 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 proposal 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 proposal 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 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 proposal 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 spreads 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 proposal?

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

Describe how this project/program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife, and if not permanent outcomes, why it is important to undertake at this time:

We will directly restore or enhance critical habitat for fish, game, and nongame wildlife on key segments of coldwater streams and rivers around the state. The projects will restore or enhance habitat in and along 11 miles of streams and rivers, and connect much larger corridors of habitat, while also extending myriad benefits (including water quality improvements, reduced sedimentation, etc.) far downstream of each project site.

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.*

What other dedicated funds may collaborate with or contribute to this proposal?

- N/A

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
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.
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.

Provide an assessment of how your program may celebrate cultural diversity or reach 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 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 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?

No

Will neonicotinoid pesticide products be used within any activities of this proposal?

No

Other OHF Appropriation Awards

Have you received OHF dollars in the past through LSOHC that are current OPEN appropriations?

Yes

Approp Year	Funding Amount Received	Amount Spent to Date	Funding Remaining	% Spent to Date
2023	\$1,690,000	-	-	-
2022	\$1,158,000	\$10,000	\$1,148,000	0.86%
2021	\$1,033,000	\$70,000	\$963,000	6.78%
2020	\$1,474,000	\$600,000	\$874,000	40.71%

2019	\$2,359,000	\$920,000	\$1,439,000	39.0%
2018	\$2,291,000	\$1,950,000	\$341,000	85.12%
2017	\$2,403,000	\$2,100,000	\$303,000	87.39%
2016	\$1,975,000	\$1,900,000	\$75,000	96.2%
2015	\$1,890,000	\$1,890,000	-	100.0%
2014	\$1,900,000	\$1,900,000	-	100.0%
2013	\$2,470,000	\$2,470,000	-	100.0%
2012	\$2,120,000	\$2,080,000	\$40,000	98.11%
2011	\$1,533,000	\$1,533,000	-	100.0%
2010	\$1,269,000	\$1,265,200	\$3,800	99.7%
2009	\$2,050,000	\$2,050,000	-	100.0%
Totals	\$27,615,000	\$20,738,200	\$6,876,800	75.1%

Timeline

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

Budget

Totals

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	\$220,000	-	-	\$220,000
Contracts	\$1,240,000	\$150,000	USFWS, NRCS, and other partners	\$1,390,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$20,000	-	-	\$20,000
Professional Services	\$590,000	-	-	\$590,000
Direct Support Services	\$80,000	\$20,000	Trout Unlimited	\$100,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$5,000	-	-	\$5,000
Supplies/Materials	\$795,000	\$150,000	USFWS, NRCS, and other partners	\$945,000
DNR IDP	-	-	-	-
Grand Total	\$2,950,000	\$320,000	-	\$3,270,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
Habitat enhancement staff	2.5	5.0	\$220,000	-	-	\$220,000

Amount of Request: \$2,950,000

Amount of Leverage: \$320,000

Leverage as a percent of the Request: 10.85%

DSS + Personnel: \$300,000

As a % of the total request: 10.17%

Easement Stewardship: -

As a % of the Easement Acquisition: -

Total Leverage (from above)	Amount Confirmed	% of Total Leverage	Amount Anticipated	% of Total Leverage
\$320,000	\$20,000	6.25%	\$300,000	93.75%

Detail leverage sources and confirmation of funds:

Leverage estimates are estimates only. We will aggressively pursue leverage, including for barrier removals in northeast Minnesota, and in southeast Minnesota projects where federal Farm Bill funding may be available.

Does this proposal 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.

If the project received 30% 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

Please explain the overlap of past and future staffing and position levels previously received and how that is coordinated over multiple years?

Funding for the current personnel who perform similar work to that required to implement the FY2025 projects has been requested in the past. All staff code each hour they work to the particular OHF grant which funds the particular project worked on. The personnel costs in each OHF grant are estimates only. Any unused dollars budgeted for personnel and travel in a given grant will be shifted into contracts and materials budget categories to complete additional habitat work under that grant.

Contracts

What is included in the contracts line?

This is for contracted services on habitat enhancement construction projects, and includes heavy equipment use and other labor.

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 and safety gear for cutting trees and brush, raking and seeding areas, etc.

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	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	141	141
Total	0	0	0	141	141

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	-	-	-	\$2,950,000	\$2,950,000
Total	-	-	-	\$2,950,000	\$2,950,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
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	4	45	0	92	141
Total	0	4	45	0	92	141

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	-	\$185,000	\$1,500,000	-	\$1,265,000	\$2,950,000
Total	-	\$185,000	\$1,500,000	-	\$1,265,000	\$2,950,000

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	-	-	-	\$20,921

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	-	\$46,250	\$33,333	-	\$13,750

Target Lake/Stream/River Feet or Miles

11 miles

Parcels

Sign-up Criteria?

No

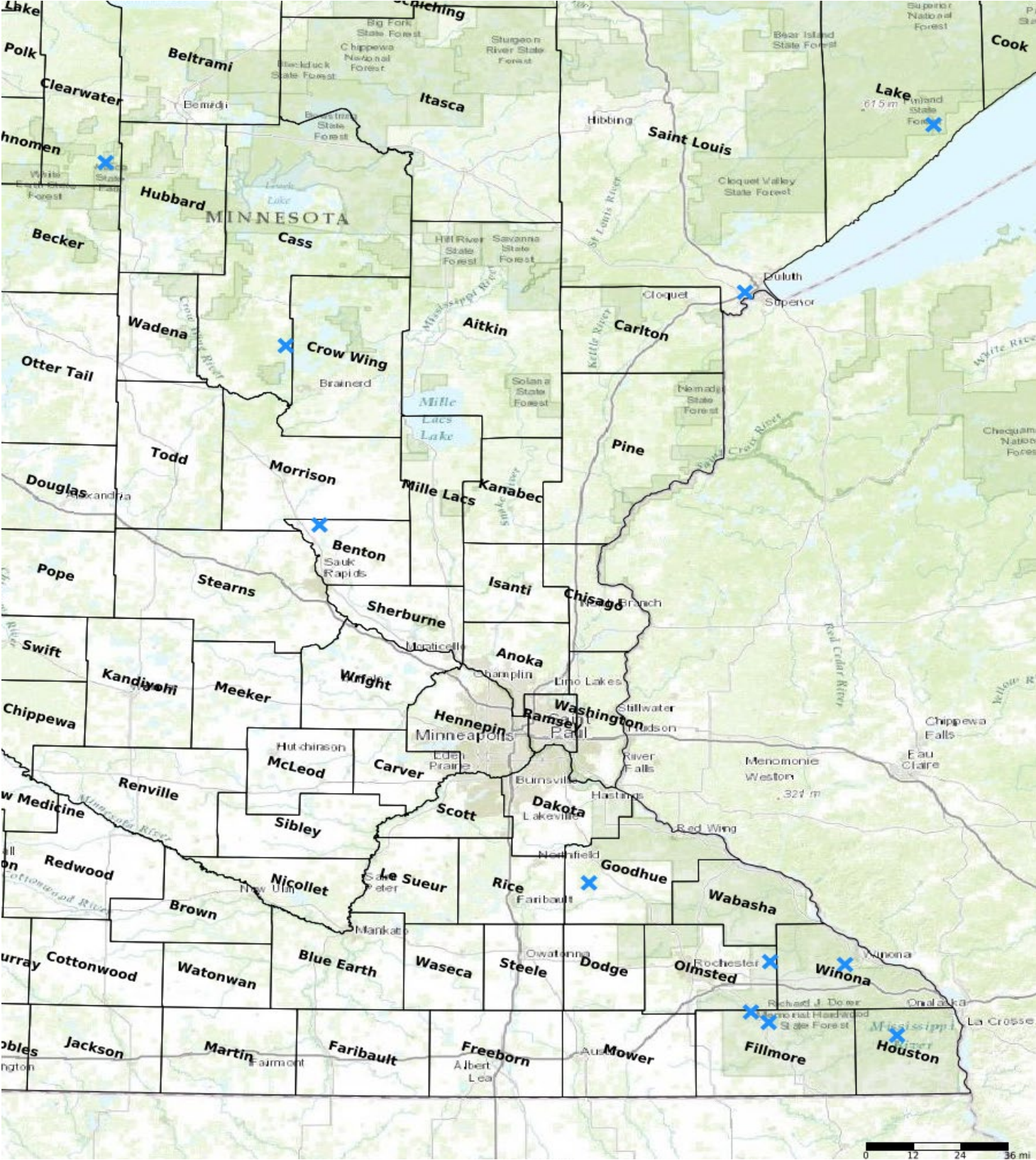
Explain the process used to identify, prioritize, and select the parcels on your list:

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
Little Rock Creek	Benton	03831210	4	\$0	Yes
Stoney Brook	Cass	13529208	12	\$0	Yes
Sucker Brook	Clearwater	14436233	3	\$0	Yes
Rice Creek	Fillmore	10411223	4	\$0	Yes
Mill Creek	Fillmore	10411206	7	\$0	Yes
Little Cannon River	Goodhue	11018201	4	\$0	Yes
Numerous streams statewide	Houston	10306210	36	\$0	Yes
Baptism, Manitou & Split Rock	Lake	05707219	36	\$0	Yes
Southeast Maintenance & Additional Enhancements	Olmsted	10711226	24	\$0	Yes
Keene Creek	St. Louis	04915212	5	\$0	Yes
Garvin Brook	Winona	10708234	6	\$0	Yes

Parcel Map



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

Minnesota Statewide Trout Habitat Enhancement FY25





Wisel Creek

