Lessard-Sams Outdoor Heritage Council

Beaver Creek Habitat Restoration

ML 2027 Request for Funding

General Information

Date: 06/22/2026

Proposal Title: Beaver Creek Habitat Restoration

Funds Requested: $1,777,000

Confirmed Leverage Funds: -

Is this proposal Scalable?: No

Manager Information

Manager's Name: Jennifer Biederman, PhD
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Location Information

County Location(s): Winona.

Eco regions in which work will take place:

Southeast Forest

Activity types:

Enhance

Restore

Priority resources addressed by activity:

Habitat

Narrative

Abstract

Habitat in two segments of Beaver Creek will be restored and enhanced in settings that will facilitate DNR evaluation of trout habitat project methodologies. OHF funds will not be used for the evaluation; rather DNR has independent research funding. Beaver Creek is located near Whitewater State Park and is popular with anglers despite its degraded condition. Minnesota Trout Unlimited will restore in-stream and riparian habitat for trout and other wildlife. In addition to restoring productive, resilient habitats, the projects will allow DNR to evaluate the effectiveness, longevity, and biological response of different designs and guide future Outdoor Heritage Fund investments.

Design and Scope of Work

This project will restore and enhance degraded habitat in and along two segments of Beaver Creek in Winona County through targeted stream restoration, floodplain reconnection, installation of in-stream habitat features designed to improve ecological function, increase habitat complexity, and support all life stages of trout and other aquatic species, and restoration of riparian vegetation. Restoration activities will address key limiting factors within the project corridor, including unstable streambanks, excess sediment delivery, simplified channel conditions, poor floodplain connectivity, and degraded riparian habitat that currently limit biological productivity, stream resilience, and water quality.

Minnesota Trout Unlimited (MNTU) will implement habitat improvements designed to restore natural stream processes while improving long-term channel stability and ecological resilience, including installation of large wood cover habitat, riffle and pool enhancement, other cover features for trout, bank stabilization, and restoration of native riparian vegetation. These improvements will increase pool frequency and depth, improve spawning and rearing habitat, restore overhead cover, reduce erosion, reduce sedimentation, improve floodplain access, and enhance aquatic and riparian habitat conditions throughout the project reach. Riparian corridor restoration will provide habitat benefits for terrestrial and avian wildlife. Reconnecting the stream to its floodplain will help dissipate flood energy, reduce erosion and sedimentation, and improve the long-term stability and function of the stream corridor under increasingly variable precipitation and flood conditions.

The projects will create high quality, durable habitat on two sections of Beaver Creek. In addition, the projects will provide a unique opportunity for the Minnesota DNR to conduct research (funded with non-OHF funds) to evaluate the two primary stream restoration approaches and long-term habitat responses. DNR scientist Doug Dieterman presented this research to the LSOHC at it January 2026 meeting. Treatment reaches paired with adjacent control reaches will provide an opportunity to assess how different restoration techniques influence habitat quality, channel stability, erosion reduction, and biological response over time. The projects will incorporate a range of restoration strategies currently being implemented in Minnesota trout streams, including wood-based habitat treatments emphasizing natural channel processes and less use of rock, as well as more traditional enhancement approaches that incorporate bank shaping and structural habitat features. While these techniques are widely used, comparative long-term performance data remain limited. By implementing two quality habitat projects within a controlled study framework, the DNR can evaluate the projects and identify which methods most effectively improve habitat complexity, maintain long-term stability, and support sustainable trout populations under changing environmental conditions. Results will help improve future habitat restoration design, project selection, and long-term conservation efficiency statewide. All monitoring, evaluation and research will be conducted by DNR researchers, and no OHF funds will not be used for these activities. OHF funds will be used by MNTU only to design and implement two quality trout habitat projects. Through this combination of direct habitat enhancement by MNTU and applied evaluation by DNR (using non-OHF funds), the project will improve the coldwater trout fishery

and ecological condition of Beaver Creek while increasing understanding of how to implement more effective trout stream restoration across Minnesota.

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

The two projects on Beaver Creek will restore and enhance degraded habitat for trout and other fish and wildlife in and along a coldwater stream that 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. Like many streams considered to be the best remaining trout streams, Beaver Creek has badly degraded segments which disrupt connectivity and significantly impact the productivity and long-term resilience and sustainability of the overall trout population. Trout streams, including Beaver Creek, 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 Beaver Creek projects are focused on stream segments which will benefit most from in-stream work and help ensure Minnesota retains at least some high quality coldwater fisheries for future generations.

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

Minnesota's trout streams represent only 6% of stream and river miles yet are among the highest quality aquatic systems remaining. Unfortunately, the majority have badly degraded habitat, including the Beaver Creek project sites. Leaving degraded segments untreated creates impacts that extends throughout the stream. Degraded sections are no longer providing habitat, clean water benefits, or angling opportunities. The increasing frequency of heavy rains/floods require action now to increase floodplain connectivity and increase durability of in-stream habitat. It is critical that restoration be done now to increase long term resilience and sustainability of these rare fisheries.

DNR researchers have been gathering baseline data in the projects sites and three additional segments that serve as research "control" reaches. To ensure the best research can be conducted, the habitat restoration/enhancement projects should be installed in 2028. This requires that design and permitting work begin in 2027 under a ML 2027.

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

Most of the Beaver Creek watershed is contained within the Whitewater Wildlife Management Area. However, much of the in-stream habitat and riparian corridor habitat remains degraded due to historic land use practices. The projects will restore high quality habitat both in-stream and in the adjacent riparian corridor. Beaver Creek has a decent population of wild, naturally reproducing trout that can quickly take advantage of the improved habitat. The projects will boost the stream's carrying capacity (fish numbers) and improve the connectivity of good aquatic and riparian habitat. In short, the projects reverse fragmentation and increase long term resilience of trout and other wildlife in the Beaver Creek valley, as well as in the larger Whitewater River valley.

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

Driftless Area Restoration Effort

Which LSOHC section priorities are addressed in this proposal?

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:

This project will create a lasting conservation legacy by restoring ecological function and long-term resilience along Beaver Creek through durable stream and riparian habitat improvements. Minnesota Trout Unlimited will reconnect the stream to its floodplain, increase in-stream habitat complexity for trout and other aquatic species, reduce sedimentation by stabilizing eroding streambanks, and improve trout spawning and rearing habitats. Native riparian vegetation will be established and will reduce sediment inputs, improve water quality, and enhance habitat for terrestrial and avian wildlife while supporting high-quality angling and outdoor recreational opportunities.

In addition, the project will be integrated into a research and monitoring effort funded by non-OHF funds. Paired treatment and control reaches will allow direct evaluation of multiple restoration approaches to determine which techniques provide the greatest long-term ecological benefit and stability. Results will inform future habitat restoration statewide, improving the effectiveness, durability, and efficiency of projects and maximizing outcomes for fish, game and wildlife.

If this project/program does not have permanent outcomes, describe why it is important to undertake at this time:

As summarized in the proceeding section, this project will produce a lasting conservation legacy and outcomes for the naturally reproducing populations of fish, game and wildlife in and along this stream.

Outcomes

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 habitat 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 three-year 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 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 increase in trout populations 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 researchers and other MNDNR staff. This monitoring will not require OHF or other constitutional funding. If modest maintenance is needed, MNDNR Lanesboro Fisheries Office's in-house habitat crew can perform the work. If the crew cannot perform the work, potential sources of funding include MNDNR AMA maintenance funding, WMA funding, and other grant funds.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
Spring 2033 (one year after the June 2032 end of grant)	DNR staff funding and volunteers.	Inspect structural elements and vegetation.	If needed, work with DNR to develop action plans.	If DNR's in-house habitat crew cannot perform the maintenance, work with DNR on using volunteers and/or contractors.
Every 3 years thereafter	DNR staff funding and volunteers.	Inspect structural elements and vegetation.	If needed, work with DNR to develop action plans.	If DNR's in-house habitat crew cannot perform the maintenance, work with DNR on using volunteers and/or contractors.

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

The habitat projects will provide easy public access to fishable trout populations in a relatively small, approachable stream. The project sites and surrounding areas are located within the Whitewater Wildlife Management Area are open to the public for angling, hunting, foraging and just walking about. Beaver Creek is accessible to diverse communities, including low- and moderate-income households. It can be fished from the streambanks and no expensive boat, waders, or special gear is required. 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. This project will give anglers more places to easily access productive fishing.

Activity Details

Requirements

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?

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 proposal either in the process of restoration or use as food plots?
No

Previous OHF Appropriations

Have you received OHF dollars through LSOHC for this program or project in the past?
No

Timeline

Activity Name	Estimated Completion Date
Begin design and permitting of projects after receipt of grant agreement from State.	Begin summer 2027
Begin construction of projects.	2028
Maintenance and other steps under warranty to establish riparian vegetation.	Complete by June 2032

Budget

Totals

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	$170,000	-	-	$170,000
Contracts	$1,254,500	$30,000	MNDNR in kind	$1,284,500
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	$10,000	-	-	$10,000
Professional Services	$270,000	-	-	$270,000
Direct Support Services	$67,500	-	-	$67,500
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	$1,000	-	-	$1,000
Supplies/Materials	$4,000	-	-	$4,000
DNR IDP	-	-	-	-
Grand Total	**$1,777,000**	**$30,000**	**-**	**$1,807,000**

Personnel

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
Habitat enhancement staff	0.34	5.0	$170,000	-	-	$170,000

Amount of Request: $1,777,000
Amount of Leverage: $30,000
Leverage as a percent of the Request: 1.69%
DSS + Personnel: $237,500
As a % of the total request: 13.37%
Easement Stewardship: -
As a % of the Easement Acquisition: -

Leverage Funding Table

	Leverage Amount Committed	Leverage Amount Confirmed (of Committed Funds)	Leverage Amount Anticipated	Total Leverage
Amount:	-	-	$30,000	$30,000
% of Total Leverage:	0.0%	0.0%	100.0%	

N/A

Detail leverage sources and confirmation of funds:
MNDNR base funding of staff.

Does this proposal have the ability to be scalable?
No

Please explain why this project can NOT be scaled:
Installing both projects during the same summer is needed for the most usable research results and best habitat outcomes in the future. Using the same contractor and heavy equipment operators on both sites also removes variables. DNR is using non-OHF funds for its research.

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

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 Beaver Creek habitat restoration projects has been requested in the past. All staff code each hour they work to the particular OHF grant which funds the particular habitat 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.

Contracts

What is included in the contracts line?
Cost of hiring construction contractor to install the projects on the ground, and includes heavy equipment use (with operators), other labor, and materials that the construction contractor must incorporate into the project features, such as rocks, wood, seed and hydro mulch. It also includes 3 years of maintenance work.

Professional Services

What is included in the Professional Services line?

Design/Engineering

Other : Geomorphological and archeological surveys, comprehensive permitting and hydraulic modeling, construction oversight, and more.

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 parallels Trout Unlimited's federal rate, which is approved every two years. It is based only upon the amount of personnel time, travel, and professional services actually expended on the habitat projects in this proposal.

Other Equipment/Tools

Give examples of the types of Equipment and Tools that will be purchased?
Primarily hand tools and safety gear for work on the sites.

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	11	11
Total	**0**	**0**	**0**	**11**	**11**

Restoration/Enhancement Acres Breakdown of Existing Protected Lands (Table 1a.2)

	RESTORE: Lands acquired with OHF	RESTORE: Lands NOT acquired with OHF	ENHANCE: Lands acquired with OHF	ENHANCE: Lands NOT acquired with OHF
DNR Lands (WMA, State Forests, etc.)	-	-	-	11
Non-DNR Lands (city, state, federal, etc.)	-	-	-	-
Easements	-	-	-	-
Total	**-**	**-**	**-**	**11**

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	-	-	-	$1,777,000	$1,777,000
Total	**-**	**-**	**-**	**$1,777,000**	**$1,777,000**

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
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	11	0	0	11
Total	**0**	**0**	**11**	**0**	**0**	**11**

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	-	-	$1,777,000	-	-	$1,777,000
Total	**-**	**-**	**$1,777,000**	**-**	**-**	**$1,777,000**

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	-	-	-	$161,545

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	-	-	$161,545	-	-

Target Lake/Stream/River Feet or Miles

1 mile

Parcels

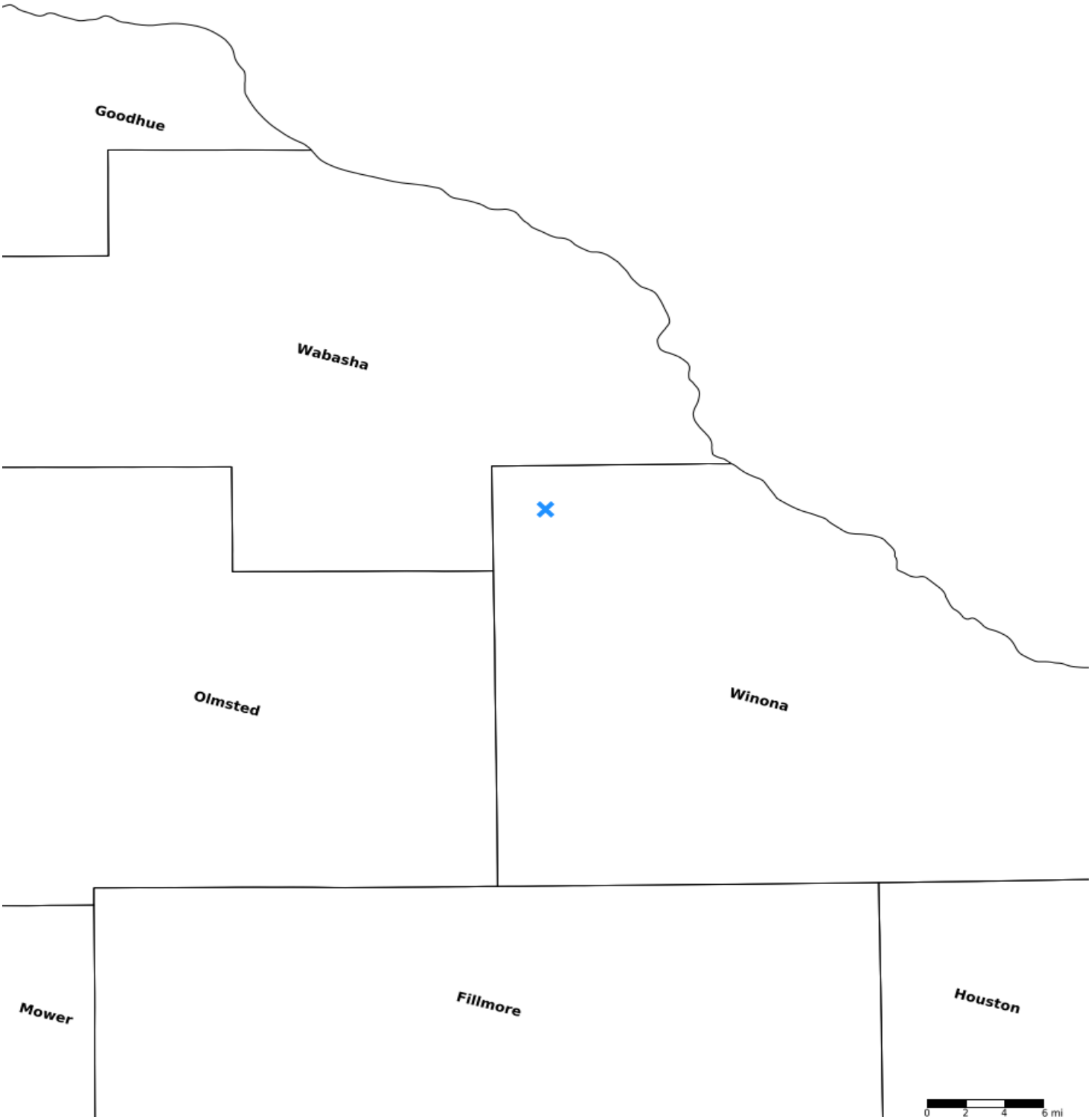
Sign-up Criteria?
No

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

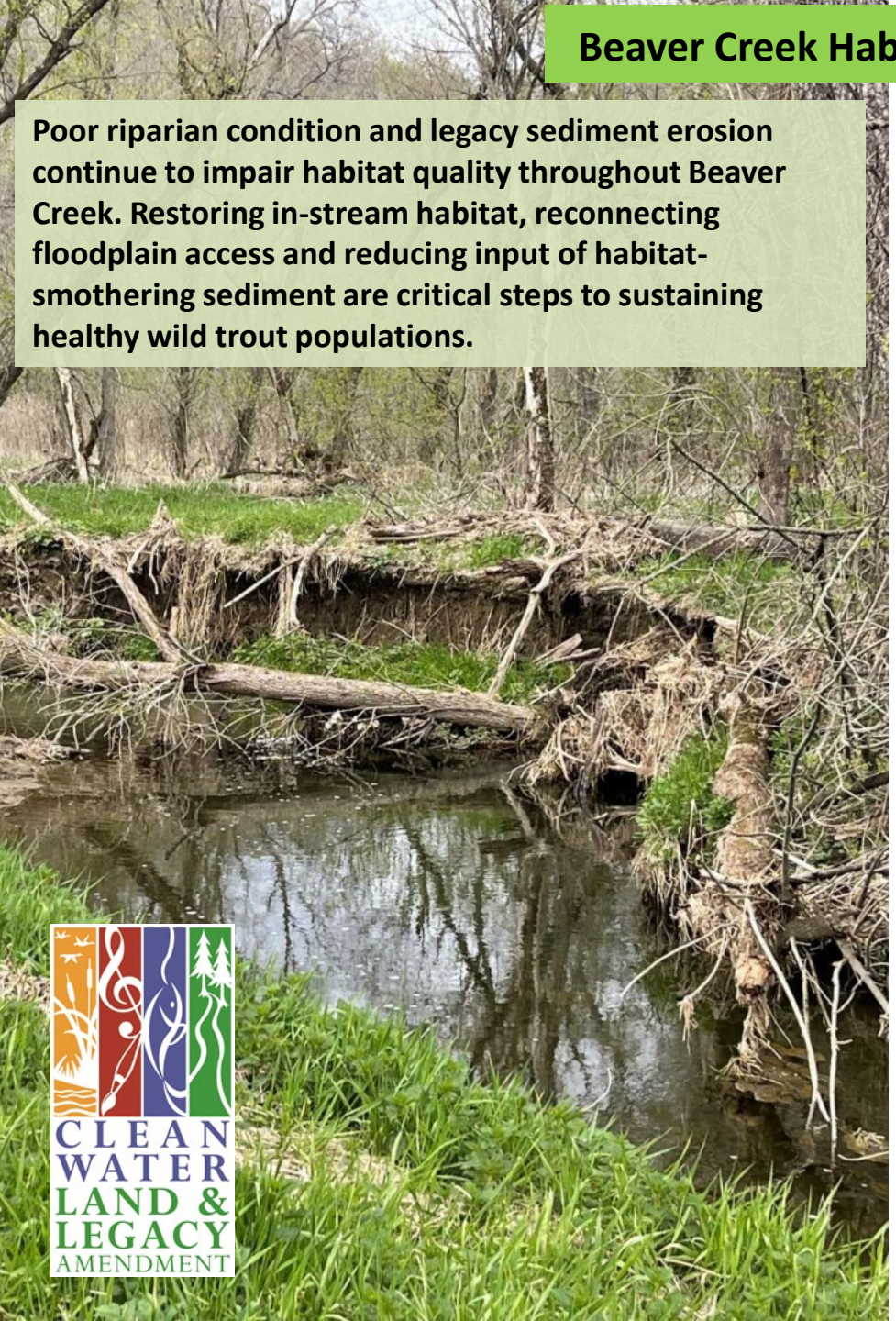
Name	County	TRDS	Acres	Est Cost	Existing Protection	Description
Beaver Creek watershed	Winona	10810216	11	$1,776,700	Yes	Enhance & restore habitat on two segments of Beaver Creek

Parcel Map


Goodhue
Wabasha
Olmsted
Winona
Mower
Fillmore
Houston
0
2
4
6 mi
Protect in Easement
Protect in Fee with PILT
Protect in Fee W/O PILT
Restore
Enhance
Other

Beaver Creek Habitat Restoration FY28

Poor riparian condition and legacy sediment erosion continue to impair habitat quality throughout Beaver Creek. Restoring in-stream habitat, reconnecting floodplain access and reducing input of habitat-smothering sediment are critical steps to sustaining healthy wild trout populations.



CLEAN WATER LAND & LEGACY AMENDMENT

MINNESOTA TROUT UNLIMITED

Typical habitat project (Hay Creek shown) creates in-stream habitat, restores a meandering pattern and slopes back steep, eroding banks to reconnect the floodplain. Native flowers and grasses are established to replace invasive woody and herbaceous vegetation.

CLEAN WATER LAND & LEGACY AMENDMENT

MINNESOTA TROUT UNLIMITED