Lessard-Sams Outdoor Heritage Council

Fall River Restoration

Laws of Minnesota 2025 Accomplishment Plan

General Information

Date: 06/05/2025

Project Title: Fall River Restoration

Funds Recommended: $1,318,000

Legislative Citation: ML 2025, Ch. 36, Art. 1, Sec. 2, subd. 5(r)

Appropriation Language: $1,318,000 the first year is to the commissioner of natural resources for an agreement with Cook County to restore and enhance coldwater stream habitat in the Fall River in Cook County.

Manager Information

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Location Information

County Location(s): Cook.

Eco regions in which work will take place:

Northern Forest

Activity types:

Restore

Priority resources addressed by activity:

Habitat

Narrative

Abstract

The project will restore and protect cold-water streams for natural occurring brook trout, a sensitive and semi-rare species, by replacing three culvert crossings which are decreasing the water quality of Fall River. The project is part of a larger countywide collaborative initiative with local and state partners to protect water quality by ensuring crossings are correctly sized. Replacing these three undersized crossings will improve stream connectivity, ensure future fish passage, improve climate resiliency, reduce sediment loading which directly impacts stream food-chains, eliminate further stream bank erosion, and restore the Fall River back to its natural state.

Design and Scope of Work

Northeast Minnesota contains many pristine lakes and rivers which support robust populations of wild brook trout and other sensitive or semi-rare aquatic organisms. Brook trout are significant to aquatic ecosystems, recreational fishing, and an indicator of healthy watersheds. Ecological functions of streams are diminished by roads, development, and impairments that degrade the aquatic ecosystem leading to reductions in brook trout populations. Tributaries provide critical services by providing thermal refugia to brook trout populations. Increased sediment in waterways can disrupt natural food-chains for fish causing decreases in fish population, clog gills thus reducing resistance to disease for fish, and alter stream navigability for fish by reducing water depth.

Fall River is a tributary to Lake Superior. Three crossings (North, Middle, and South) have been identified as high priority for replacement for several reasons: to better facilitate aquatic organism passage (AOP), to reduce stream velocities which are causing unnatural bank erosion, and to reduce sediment loading in the water. AOP is defined as the ability of fish and other aquatic organisms to migrate and swim freely upstream and downstream through or beneath human infrastructure such as culverts, bridges, diversion, dams, etc. Currently, trout and other fish are unable to pass through these crossings due to high velocities and perched culvert bottoms. The bankfull width measurements for the North crossing is 11 feet, the Middle crossing is 11.8 feet, and the South crossing is 14 feet. Cook County has determined the North and Middle crossings will become 14'x6' concrete box culverts and the South crossing will become an 85' single span bridge to improve native brook trout habitat, build for climate resiliency with increased precipitation events, and aid in maintaining and improving water quality. Cook County and Cook County Soil and Water Conservation District (SWCD), with input from the MN DNR, agree that the upsized box culverts and bridge crossing will be the most beneficial for the water quality and aquatic habitat. This project is directly in line with the MN DNR Fisheries priorities of restoring fish passage in our streams. Wild brook trout have been identified as the primary species in the project area. Downstream, near the mouth at Lake Superior, rainbow trout, pink salmon, coho salmon, and chinook salmon have all been identified in the river.

The current crossings are impeding AOP, pinching the river at three locations since it is not at bankfull width, causing high stream velocities, and increasing sediment loading in the river. Because it is pinching the river at these locations, it is causing an increase in velocity of stream flow. The velocity is creating shear stress on downstream banks, causing erosion, unnatural pools and contributing to sediment loading in the river. The inlet and outlet banks of each crossings show extreme erosion due to the undersized crossings. The project will replace the last three crossings on Fall River, therefore restoring it back to its natural state. The crossings will meet bankfull width, match stream riffle slopes, reduce water velocities, and reduce erosion.

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

Currently, the river has three crossings that are undersized: reducing water quality and preventing AOP. The new structures will be wide enough to accommodate bankfull width and will be able to handle larger flood events. It will fully restore the area back to a more natural state. The instream area of the new structures will have natural channel design to aid in AOP and aquatic habitat. The natural riffle slopes of the river will be matched at each crossing, natural stream material will be used in the North and Middle crossings to fill the bottom of the box culverts, and the amount of water that backs up during storm events will be reduced, decreasing flooding. The Southern crossing acts like a dam currently, backing up during Spring melt and other flooding events. All three of the proposed crossings will have reduced water velocities compared to the current conditions. This will immediately reduce the amount of sediment eroding into the river which greatly disrupts the food chain for fish, can cause increased disease by clogging gills, and reduces navigability for fish and other organisms. Reduced velocities also benefit AOP which benefits the entire ecosystem. 2 miles of river and tributaries will be opened up with the replacement of these structures in addition to less sediment being transported downstream towards Lake Superior. By improving water quality the ecosystem surrounding the river benefits. A variety of mammals, birds, turtles, frogs, fish, insects, and plants all benefit from a healthy river. Restoring Fall River back to its natural state helps maintain and improve not just Fall River but the Lake Superior watershed.

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

The continued erosion that is occurring because of these crossings will only worsen over time. Sediment loading is known to greatly disrupt waterway ecosystems by increasing water turbidity, which reduces sunlight for plants and other organisms which the fish in the waterway rely on for food. Reduced food supply immediately impacts the fish population which reduces water quality. A diverse ecosystem is more resilient to disease and climate change. Increased sediment also can clog gills and reduce stream navigability for fish. According to the Minnesota Pollution Control Agency (MPCA) the leading cause of increased sediment in rivers are ravines, bluffs, and streambanks. This is evident near these crossings where the streambanks are eroding away. This will continue to happen until these crossings are replaced.

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

Fall River is a tributary to Lake Superior. There are smaller tributaries that flow into Fall River as well. The project will connect 2 miles of river and its tributaries, thus reducing habitat fragmentation. According to the MN Department of Natural Resources, there are healthy numbers of brook trout up to the southern edge of the project. By replacing the three undersized crossings and incorporating natural channel design the remainder of Fall River would open up to this population thus creating more upstream habitat and creating a more diverse genetic pool with more mobility in the river. Erosion is causing increased amounts of sediment in the river which inhibits stream navigability for fish and other organisms. By matching natural stream conditions (riffle slopes and water velocities) at each crossing the remainder of Fall River and its tributaries opens up for fish and other organisms to reach. Increasing the diversity of ecosystems makes them more resilient to disease, drought, climate change, and other external pressures.

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

Minnesota's Wildlife Action Plan 2015-2025

Other : Lake Superior North, One Watershed One Plan

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.

By incorporating natural channel design, meeting bankfull width, and floodplain connection, the river will return to a natural state and be more climate resilient to handle precipitation challenges. Natural sediment deposition will be less disrupted, providing a more natural channel evolution of the river. The stream will not be pinched to a confined area in three locations causing upstream and downstream issues. Flood waters will be able to flow in a more natural way, allowing the stream to function and adapt more naturally. The long-term benefits of this project include reducing habitat fragmentation, increasing water quality, preventing sediment loading and bank erosion, reducing water velocity and reducing warming water trends. Climate resiliency is addressed through riparian planting, natural channel design, floodplain connection, and crossings that are designed to handle larger storm events.

Which LSOHC section priorities are addressed in this program?

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

Outcomes

Programs in the northern forest region:

Improved aquatic habitat indicators ~ *The project aims to maintain and improve the water quality of Fall River. By reducing the erosion taking place this reduces the amount of sediment in the river. Reduced sediment loading improves the food chain for fish and other organisms. Maintaining a diverse water ecosystem benefits the surrounding area as well for mammals, birds, and other creatures. Sustaining a diverse ecosystem makes it more resilient to disease, climate change, and other external factors. The project would open up 2 miles of Fall River and its tributaries for fish and other organisms.*

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.

These funds are not supplanting or substituting previous funds allocated for this project.

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

The project is part of a larger countywide effort to protect and improve water quality. The crossings in this project will allow the river to be restored to a more natural state and will be maintained by Cook County for the lifespan of the structure and any subsequent replacements into perpetuity.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2026 and beyond	local	monitor restored banks	document observations	continue to monitor banks and make necessary adjustments
2026 and beyond	local	initial bridge inspection	document observations	continue inspections and documentation for lifespan of structure

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

Enhancing and protecting water quality is in direct alignment with the goals set out by the 1854 Treaty Authority to protect, preserve, and enhance the hunting, fishing and gathering rights of the Grand Portage and Bois Forte bands of Lake Superior Chippewa in the 1854 Treaty area. By improving the water quality, creating better fish habitat, and reducing bank erosion this project is directly benefiting the Grand Portage and Bois Forte bands of Lake Superior Chippewa.

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?

Public Waters

County/Municipal

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
End construction	October 2026
Design, engineering, and permitting	September 2025
Begin construction	June 2026
Bid Letting	December 2025

Date of Final Report Submission: 11/01/2026

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, 2029;
(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, 2033;
(3) money appropriated for restoring or enhancing other land is available until June 30, 2030;
(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	-	-	-	-
Contracts	$1,318,000	$1,322,000	state bridge bonds and local monies	$2,640,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	-	-	-	-
Professional Services	-	-	-	-
Direct Support Services	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	-	-	-	-
DNR IDP	-	-	-	-
Grand Total	**$1,318,000**	**$1,322,000**	**-**	**$2,640,000**

Amount of Request: $1,318,000
Amount of Leverage: $1,322,000
Leverage as a percent of the Request: 100.3%
DSS + Personnel: -
As a % of the total request: 0.0%
Easement Stewardship: -
As a % of the Easement Acquisition: -

How will this program accommodate the reduced appropriation recommendation from the original proposed requested amount?
The shortfall will be made up with a combination of state bridge bonds and local tax dollars

Detail leverage sources and confirmation of funds:
State bridge bonds are legislatively appropriated for qualifying bridges and local tax dollars are drawn from the levy in Cook County annually.

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?
Instead of replacing 3 crossings we could do 1 or 2 crossings. This would drastically reduce the amount of river that would be opened up for AOP and go against the premise of restoring the last 3 crossings on the river to fully restore Fall River.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?
Personnel costs would be reduced since only 1 crossing would be constructed.

Contracts

What is included in the contracts line?
Included in the contracts line are costs associated with mobilizing equipment, removing existing crossings, abutment concrete, concrete beams and diaphragms, excavation of fill material, piling, stream bank restoration, stream diversion, riprap, concrete box culverts.

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	-	-	-	1	1
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-
Total	**-**	**-**	**-**	**1**	**1**

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	$1,318,000	$1,318,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-
Total	**-**	**-**	**-**	**$1,318,000**	**$1,318,000**

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	-	-	-	-	1	1
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	-	-
Total	**-**	**-**	**-**	**-**	**1**	**1**

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	$1,318,000	$1,318,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	-	-
Total	**-**	**-**	**-**	**-**	**$1,318,000**	**$1,318,000**

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	$1,318,000
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	-	-	-	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	-	$1,318,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-

Target Lake/Stream/River Feet or Miles

2 miles

Parcels

Parcel Information

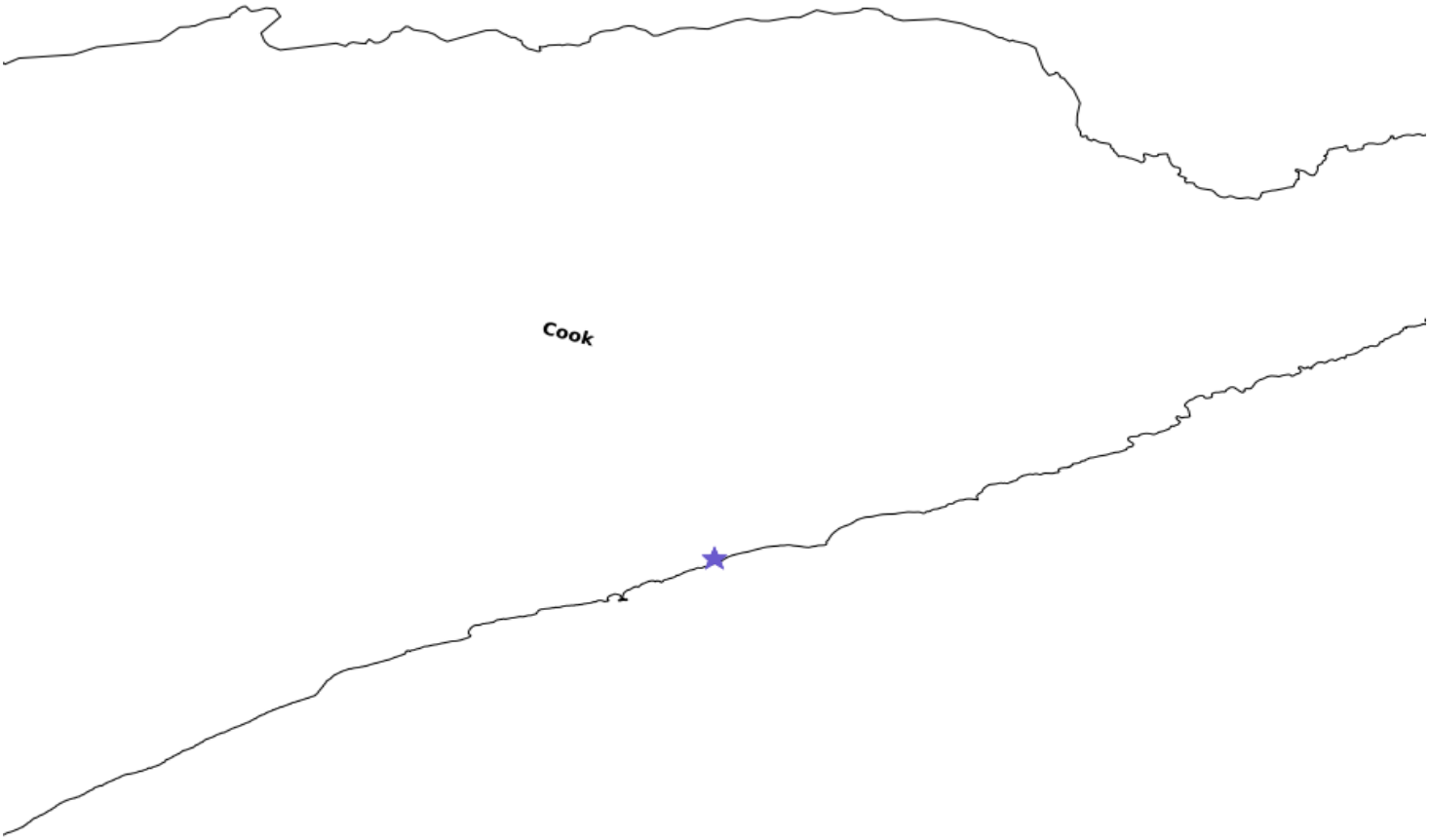
Sign-up Criteria?
No

Explain the process used to identify, prioritize, and select the parcels on your list:
The parcels identified below are the locations of the fish barriers.

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection	Description
Remove Middle AOP barrier Tax Parcel ID: 52-142-0400	Cook	06101W13	1	$720,000	Yes	remove AOP barrier
Remove North AOP barrier Tax Parcel ID: 52-113-3110	Cook	06101W13	1	$720,000	Yes	remove AOP barrier
Remove South AOP barrier: Tax Parcel ID: 52-113-3125	Cook	06101W13	1	$1,200,000	Yes	remove AOP barrier

Parcel Map



0 2 4 6 mi

- Protect in Easement
- Protect in Fee with PILT
- Protect in Fee W/O PILT
- Restore
- Enhance
- Other