



Lessard-Sams Outdoor Heritage Council

Protection and Resiliency in the Rainy River Headwaters
ML 2027 Request for Funding

General Information

Date: 06/24/2026

Proposal Title: Protection and Resiliency in the Rainy River Headwaters

Funds Requested: \$3,000,000

Confirmed Leverage Funds: -

Is this proposal Scalable?: Yes

Manager Information

Manager's Name: Robert Kimmel-Hass

Title: County Engineer

Organization: Cook County

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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 improve cold-water streams and wetland connectivity in the Rainy River headwaters by replacing at least 16 undersized or deteriorated culverts in the Saganaga Lake and Granite River sub-watersheds. These crossings support critical habitat for aquatic species. As part of a countywide effort with local and state partners, the project will install properly sized culverts to enhance fish passage, improve watershed connectivity, reduce sediment and erosion, improve climate resilience, and protect long-term water quality at the Rainy River Headwaters.

Design and Scope of Work

Northeast Minnesota contains many pristine lakes and rivers which support robust populations of wild trout and other sensitive or semi-rare aquatic organisms. Healthy trout populations 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 trout populations. Tributaries provide critical services by providing thermal refugia to trout populations.

The proposed project in the Rainy River headwaters identified at least 16 culverts for replacements. Four of these culverts carry named streams (Seagull Creek and Larch Creek) while the remaining provide critical watershed connectivity. The Rainy Headwaters-Vermillion One Watershed One Plan (RH-V 1W1P) identified approximately 208,000 acres of the Rainy River Headwaters Watershed in Cook County. The proposed protection and resiliency project would impact the watershed at multiple scales. Excavation and culvert replacement occurs over approximately 2 acres that would immediately improve 4.6 miles of named streams and many unnamed tributaries. Once these 16 culverts are replaced, according to StreamStats (<https://streamstats.usgs.gov/ss/>), they will indirectly positively affect about a quarter of the Rainy River Watershed (50,000 acres) based on an analysis of each culvert basin along with about 80 lakes.

Right sizing culverts prevents sediment loading and erosion which can be seen all throughout this corridor and watershed basin. Perched culvert bottoms prevent aquatic organism passage (AOP) which is the ability for fish and other aquatic organisms to migrate and swim freely upstream and downstream through or beneath human infrastructure such as culverts, bridge, diversions, dams, etc. The sizing of these culverts will be determined from a robust hydraulic analysis along with following geomorphic design guidance. The new crossings will meet AOP guidelines and also be more climate resilient. The new culverts will also improve watershed connectivity as seen in the attached illustration.

Cook County and Cook County Soil and Water Conservation District (Cook SWCD), with input from the local MN DNR fisheries, agree that right-sizing crossings 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. 80 lakes and 4.6 miles of streams would be positively impacted by this project. These waterbodies house a variety of organisms from trout, walleye, and pike, to small micro-invertebrates. The interconnectedness of this system provides a healthy habitat and thus a healthy ecosystem where the RH-V 1W1P has identified the region as one to protect and enhance.

The current crossings are impeding AOP, pinching the two named rivers at four locations, causing flooding and sediment loading, prohibit watershed connectivity, and are not resilient to climate change. Right-sizing these crossings will provide better watershed connectivity, increased climate resilience to more frequent storm events, and be in line with the watershed plan's goal of protecting and enhancing the watershed.

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

Currently, at least 16 culverts have been identified for replacement. These culverts are prohibiting watershed connectivity and in some cases are undersized, causing bank erosion, sediment loading, and preventing AOP. Watershed connectivity and removing barriers is identified in the RH-V 1W1P as a key priority. The new structures will be right-sized based on a robust hydraulic analysis and meeting geomorphic design guidelines. These will be able to handle larger and more frequent flood events. Engineering final design work is already underway with the preliminary design already completed by Cook County. The new crossings will create more connectivity in the watershed which leads to a healthier ecosystem that will benefit the surrounding environment. Approximately 50,000 acres of the watershed will be positively affected, along with 4.6 miles of streams, and 80 lakes.

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

With increased precipitation in rain and snow melt events, it is important to be proactive and complete the work now before additional issues arise. Work has already begun to design these crossings to meet AOP needs and if this project doesn't happen now then resources will have been expended for nothing and the problems associated with increased sediment loading, impaired watershed connectivity, lack of AOP, and increased erosion will continue. The proposed project is part of a larger road construction project so by combining the two there will be savings in mobilization costs as well as a minimizing of environmental disturbance by doing all the work at once. Cook County is working on the final design as we speak and the project is construction ready within 6 months of appropriation.

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

At least 16 crossings connect approximately 50,000 acres of the Rainy River watershed near its headwaters. The culverts are prohibiting watershed connectivity and are undersized in some cases causing barriers for AOP. By replacing and right-sizing these culverts, the project protects against habitat fragmentation. The new structures will create a more resilient habitat as well by being designed to handle more extreme weather events. The project will better protect and connect 50,000 acres of the watershed, 4.6 miles of streams, and 80 lakes will all benefit from this.

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 : Rainy Headwaters-Vermillion, One Watershed One Plan

Which LSOHC section priorities are addressed in this proposal?

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

Describe how this project/program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife:

The area of the project is part of Cook County land in County right of way and will be protected indefinitely. The area is known for cold waters that provide a home for trout in lakes and streams, pike, walleye, and many other macro- and micro-invertebrates. This area is referenced in the RH-V 1W1P as being a pristine habitat that should

be protected. Over time, sediment loading and bank erosion have increased from deteriorating culverts and undersized crossings. This directly contributes to sediment loading in the watershed and impairs watershed connectivity. With higher rain events and a trend to warming waters, now is the time to be proactive and try and protect aquatic habitats, having structures, practices and vegetation in place to provide climate resiliency to try and maintain cold water habitats.

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

Outcomes

Programs in the northern forest region:

Improved aquatic habitat indicators ~ The project will eliminate wetland connectivity barriers and impediments for AOP in 50,000 acres of RRHW watershed, 4.6-mi of streams, and positively impact at least 80 lakes. A hydraulic analysis of the area, along with following geomorphic design guidelines, will right-size the culverts and create a better habitat and more climate resilient watershed.

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 water quality. The crossings in this project will allow the river and watershed 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
2028 and beyond	local	initial installation	document observations	continue inspections and documentation for lifespan of structure

Provide an assessment of how your program may celebrate cultural diversity or reach 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. This project occurs within the 1854 Treaty area in NE MN. 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

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 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?

Yes

Are there any of these past appropriations still OPEN?

Yes

If needed, please include any explanation of unspent funds.

ML 24 funds show a balance of \$272,926.91. There's some clean-up work to do Summer 2026 that should expend the remainder of the funds. The discrepancy in funds occurs from recent expenditures since the last status update. ML 25 funds the project is delayed to 2028 due to construction scheduling. ML 26 funds the project is scheduled for Summer 2027 and design is on schedule.

Open OHF Appropriations - Data from Most Recent Status Update

Project	Funding Amount Received	Amount Spent to Date	Funding Remaining	% Spent to Date
ML 2026 - Woods Creek Restoration	\$750,000	-	\$750,000	0.0%
ML 2025 - Fall River Restoration	\$1,318,000	-	\$1,318,000	0.0%
ML 2024 - Little Devil Track River Restoration	\$3,000,000	\$2,057,500	\$942,500	68.58%
Totals	\$5,068,000	\$2,057,500	\$3,010,500	40.6%

Timeline

Activity Name	Estimated Completion Date
Design, engineering, permitting	September 2027
Bid letting	December 2027
Begin construction	June 2028
End construction	October 2028

Budget

Totals

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	-	\$230,000	county levy/local tax	\$230,000
Contracts	\$3,000,000	\$1,037,000	federal and state funds	\$4,037,000
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	\$3,000,000	\$1,267,000	-	\$4,267,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
Cook County Inspector	1.0	1.0	-	\$100,000	county levy/local tax	\$100,000
Cook County Inspector	1.0	1.0	-	\$100,000	county levy/local tax	\$100,000
Cook County Engineer	1.0	1.0	-	\$30,000	county levy/local tax	\$30,000

Amount of Request: \$3,000,000

Amount of Leverage: \$1,267,000

Leverage as a percent of the Request: 42.23%

DSS + Personnel: -

As a % of the total request: 0.0%

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:	\$850,000	-	\$417,000	\$1,267,000
% of Total Leverage:	67.09%	0.0%	32.91%	

N/A

Detail leverage sources and confirmation of funds:

Committed funds come from personnel expenses come from the local county levy, a federal PROTECT grant was received for \$420,000, and RRHW grant for \$200k. Anticipated leverage comes from state bridge bonds. While not counted as leverage, Cook County has already funded preliminary design.

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?

The proposed project could be broken down by crossing size: bridges, large culverts, and wetland connectors. A final hydraulic analysis will determine which crossings become bridges and which remain larger culverts. Reduced funding could just go towards one of these categories but the remainder of those crossings would unfunded.

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

Personnel costs would decrease with less crossings to inspect.

If the project received 30% of the requested funding

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

The proposed project could be broken down by crossing size: bridges, large culverts, and wetland connectors. A final hydraulic analysis will determine which crossings become bridges and which remain larger culverts. Reduced funding could just go towards one of these categories but the remainder of those crossings would unfunded.

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

Personnel costs would decrease with less crossings to inspect.

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

Contracts

What is included in the contracts line?

culverts, bridge structures, aprons, mobilizing equipment, removing existing crossings, excavation of fill material, stream bank restoration, stream diversion, rip rap, fill material

Federal Funds

Do you anticipate federal funds as a match for this program?

Yes

Are the funds confirmed?

Yes

Other : competitive grant

Is Confirmation Document attached?

Yes, on file

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	0	0	0	50,000	50,000
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	0	0
Total	0	0	0	50,000	50,000

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.)	-	-	-	-
Non-DNR Lands (city, state, federal, etc.)	-	-	-	-
Easements	-	-	-	-
Total	-	-	-	-

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	\$3,000,000	\$3,000,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-
Total	-	-	-	\$3,000,000	\$3,000,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	0	0	0	50,000	50,000
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	0	0	0	0
Total	0	0	0	0	50,000	50,000

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	\$3,000,000	\$3,000,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	-	-
Total	-	-	-	-	\$3,000,000	\$3,000,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	\$60
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	-	-	-	-	\$60
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

4.6mi

Parcels

Sign-up Criteria?

No

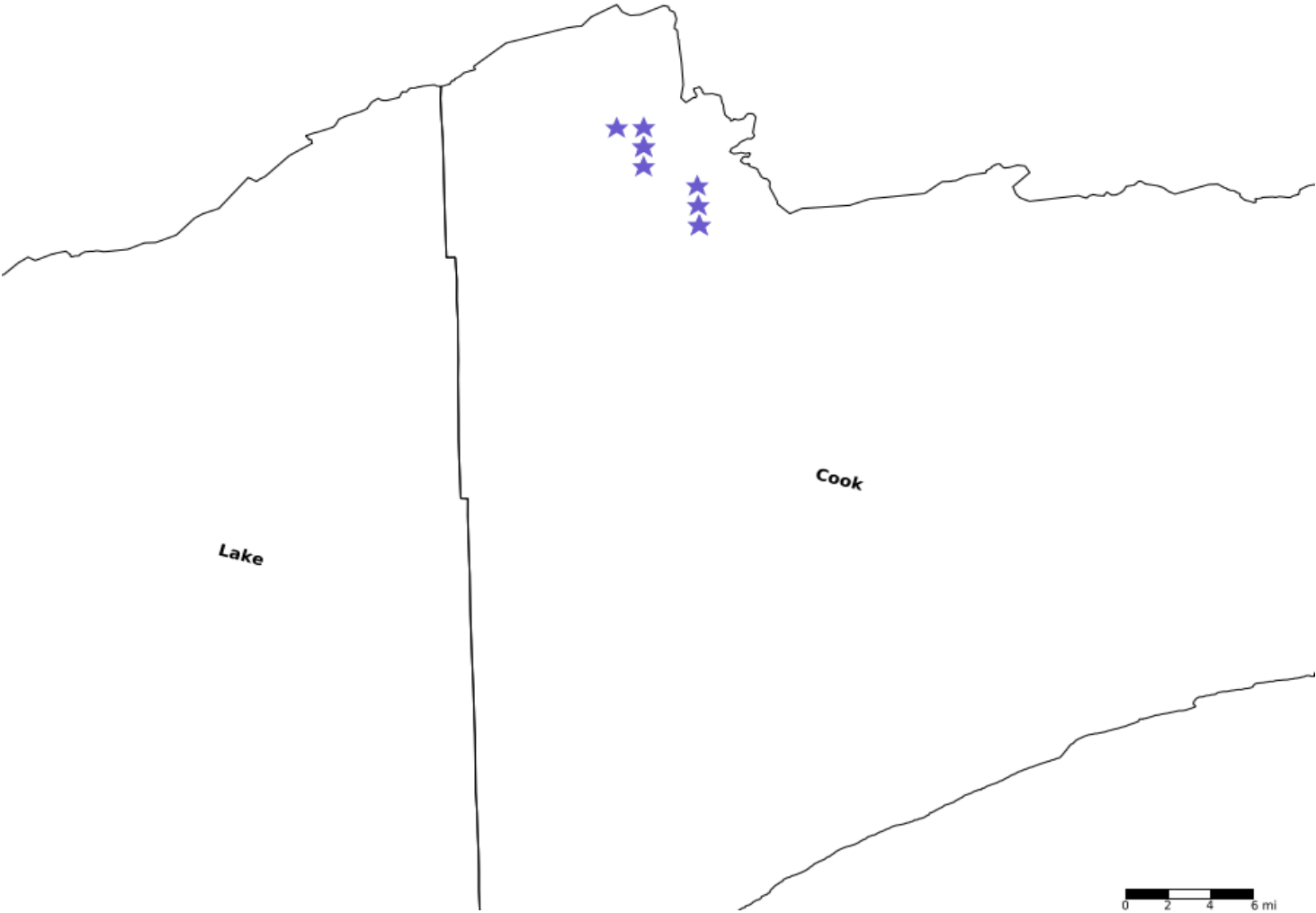
Explain the process used to identify, prioritize, and select the parcels on your list:

The parcels identified below are the locations of the culverts. Some parcels have multiple culverts and their basin acreage and costs were added together.

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection	Description
C11: Tax Parcel ID: 49-505-4100	Cook	06504205	1	\$65,505	Yes	replace culvert
C12: Tax Parcel ID: 49-505-1400	Cook	06504205	1	\$65,505	Yes	replace culvert
C13, C14, C15: Tax Parcel ID: 49-632-1200	Cook	06604232	210	\$196,515	Yes	replace culverts
C16: Tax Parcel ID: 49-631-1100	Cook	06604231	294	\$65,505	Yes	replace culvert
C1: Tax Parcel ID: 49-527-1400	Cook	06504227	45,440	\$65,505	Yes	replace culvert
C2: Tax Parcel ID: 49-527-1200	Cook	06504227	136	\$65,505	Yes	replace culvert
C3, C4, C5, C6: Tax Parcel ID: 49-522-1100	Cook	06504222	952	\$1,441,518	Yes	replace culverts
C7 & C8: Tax Parcel ID: 49-515-1100	Cook	06504215	627	\$780,505	Yes	replace culverts
C9 & C10: Tax Parcel ID: 49-508-1100	Cook	06504208	2,544	\$899,216	Yes	replace culverts

Parcel Map



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

Protection and Resiliency in the Rainy River Headwaters

Protecting and enhancing wetland connectivity and stream habitat in the Rainy Headwaters Vermillion Watershed

Synopsis: The proposed project is located at the headwaters of the Rainy River Watershed located in the Arrowhead region approximately two hours north of Grand Marais. At least 16 crossings spread out along 10 miles of the Gunflint Trail (CSAH 12) are impacting approximately 50,000 acres of the watershed and 4.6 miles of streams.

The culverts are causing sediment loading into the watershed, visible erosion at the inlets and outlets, and in some cases are undersized for the streams they carry. Replacing the crossings with right-sized structures is the only way to ensure the watershed is protected and gains increased resilience from the impacts of climate change, flooding, and also maintaining watershed connectivity; a priority issue in the Rainy Headwaters-Vermillion One Watershed One Plan. This project is in direct alignment with the high priority goals of restoring fish passage laid out by MN DNR Fisheries.

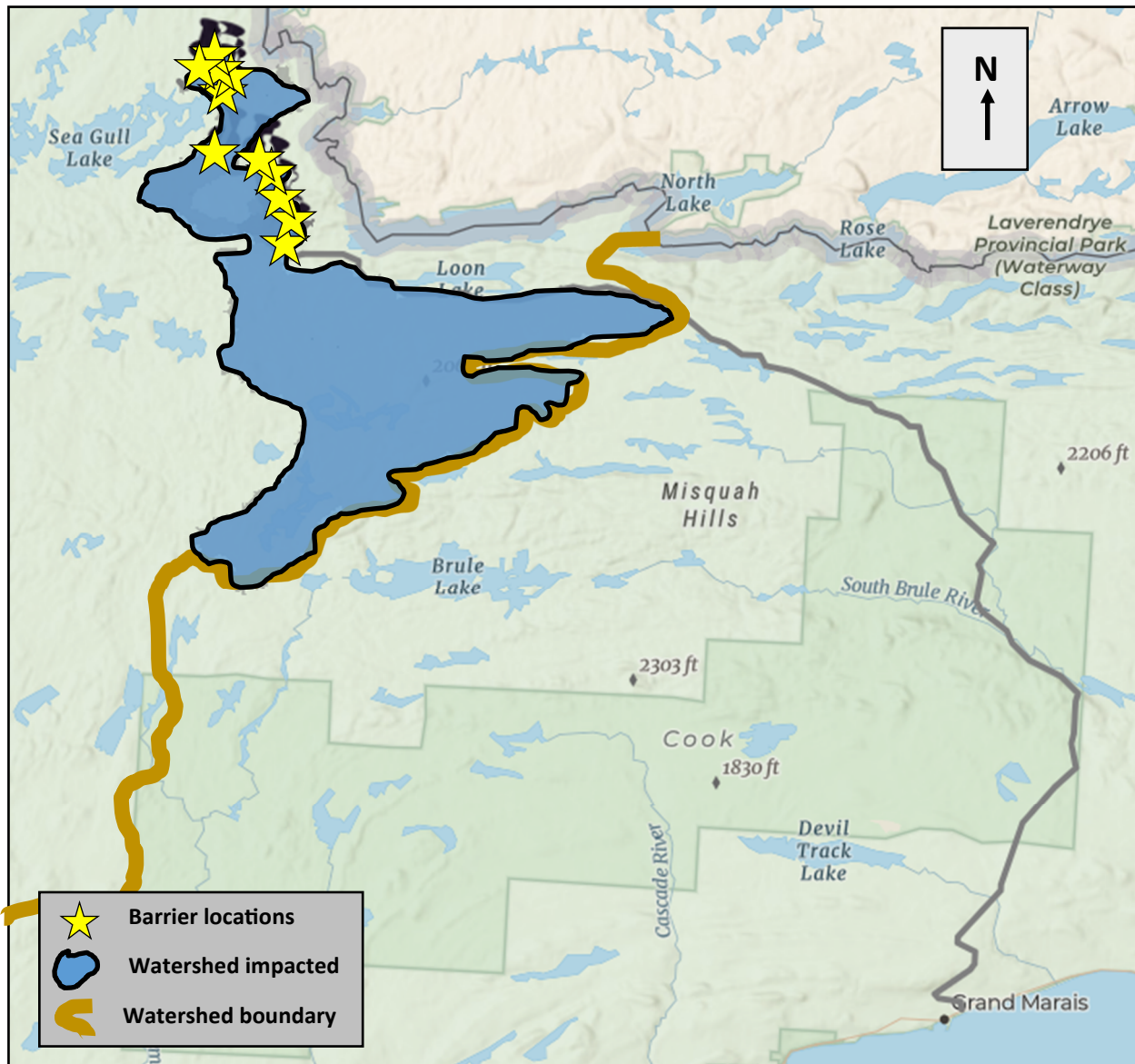


Project Lead:

Cook County

Project Partner:

Cook County Soil and Water Conservation District



Above: The project site location.

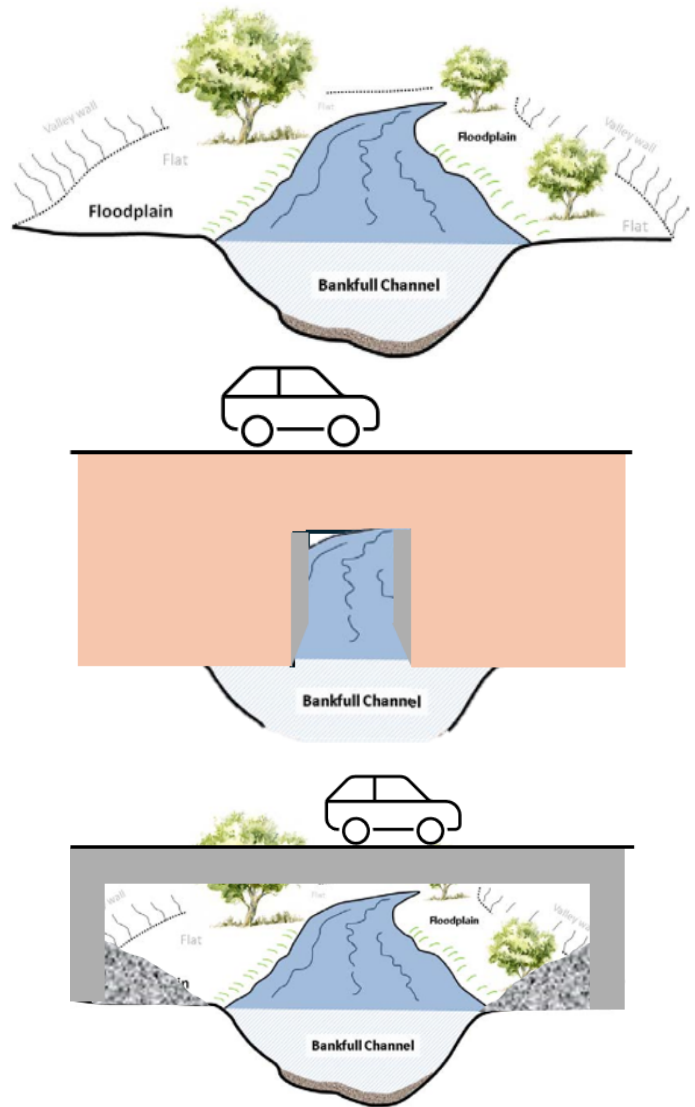
Cook County has already funded engineering and project development expenses. This is a chance for the Council to make this a habitat project instead of just a highway project. With this funding, the project is a stream restoration and watershed protection project, going beyond the usual culvert replacement of putting back what is currently there. The project will be shovel ready when funds are appropriated.



Above: One of the 16 culverts identified causing bank erosion and sediment loading in the watershed.



Left: An example of one of the undersized and deteriorated culverts on the project. Protecting the wetlands and watershed pictured here is a priority item in the Rainy Headwaters-Vermillion One Watershed One Plan.



Above: From top to bottom: natural, existing, and proposed stream crossings.