



Lessard-Sams Outdoor Heritage Council

Two Rivers Fish Passage Restoration and Habitat Enhancement
Laws of Minnesota 2018 Final Report

General Information

Date: 10/27/2023

Project Title: Two Rivers Fish Passage Restoration and Habitat Enhancement

Funds Recommended: \$2,000,000

Legislative Citation: ML 2018, Ch. 208, Art. 1, Sec. 2, subd 5(o)

Appropriation Language: \$2,000,000 the second year is to the commissioner of natural resources for an agreement with the city of Hallock to restore and enhance fish passage and habitat in the South Branch Two Rivers. A list of proposed restorations must be provided as part of the required accomplishment plan.

Manager Information

Manager's Name: Aimee Sugden

Title: City Administrator

Organization: City of Hallock

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Location Information

County Location(s): Kittson.

Eco regions in which work will take place:

- Prairie

Activity types:

- Restore
- Enhance

Priority resources addressed by activity:

- Habitat

Narrative

Summary of Accomplishments

The City of Hallock, with funding from LSOHC, restored and enhanced habitat to facilitate fish passage by retrofitting the existing Hallock Dam on the South Branch of the Two Rivers and re-established a stable riffle-pool habitat downstream. In addition to the fish habitat improvement, the project has provided enhanced recreational opportunities for paddlers along the river.

Process & Methods

The original dam was removed and retrofit with a rock arch rapids fishway that allows for fish migration upstream. Following the retrofitting/construction of the dam, contractors used root balls from local trees to further stabilize the river banks.

Engineering and research was completed by Houston Engineering with guidance from LSOHC and the MN DNR. Construction was done by Spruce Valley Corp. and subcontractors.

How did the program address habitats of significant value for wildlife species of greatest conservation need, threatened or endangered species, and/or list targeted species?

The project modified the existing 11 foot high dam and replaced it with a rock arch rapids fishway that has provided lake sturgeon spawning habitat and reconnected more than 30 miles and 300+ acres of habitat along the South Branch of the Two Rivers.

How did the program use science-based targeting that leveraged or expanded corridors and complexes, reduced fragmentation, or protected areas in the MN County Biological Survey.

DNR Fisheries Surveys were done prior to the project and indicated the existing Hallock Dam was a barrier to fish migration. Other DNR studies indicated that the removal of barriers creates more diverse mussel and fish communities and expand and improve fishing opportunities in river segments above barriers.

In addition stream survey work was completed prior to the project and identified 43 species of fish within the watershed but only 13 of these species upstream of the dam. The survey specifically identified lake sturgeon (a species of Special Concern) as one such species that exists within the watershed but not upstream of the dam.

All of this science-based research was used to set benchmarks and incorporated into the project's design.

Explain Partners, Supporters, & Opposition

Partners; City of Hallock, Houston Engineering (lead engineer), MN DNR Fisheries

Opposition; members of the city council and the community raised concerns that lowering the river bank adjacent to the spillway will exacerbate spring flooding.

Supporters; local anglers, community members with interests in the outdoors, outdoor enthusiasts

Exceptional challenges, expectations, failures, opportunities, or unique aspects of program

Exceptional Challenge/Failure; A portion of the final project was washed out just months after construction following a minor spring flood. Additional work needed to be done to clean up from the flood and further protect the area.

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

- N/A

What is the plan to sustain and/or maintain this work after the Outdoor Heritage Funds are expended?

The City of Hallock will maintain the installed project. Significant long-term maintenance costs are not expected. If maintenance is required, the City of Hallock will use funds currently designated for dam maintenance.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
Annually	City of Hallock - Local Tax Levy	Inspect Rock Fishway and downstream habitat restoration features.	Perform maintenance/repairs as needed.	-
On Year After Completion	MN DNR - Fisheries	Fish survey conducted by Minnesota DNR Fisheries.	-	-
5 years after project completion	MN DNR - Fisheries	Fish survey conducted by Minnesota DNR Fisheries.	-	-
10 years after project completion	MN DNR - Fisheries	Fish survey conducted by Minnesota DNR Fisheries.	-	-

Budget

Totals

Item	Requested	AP Amount	Spent	Leverage	Received Leverage	Leverage Source	Original Total	Final Total
Personnel	-	-	-	-	-	-	-	-
Contracts	\$1,750,000	\$1,621,000	\$1,621,600	-	-	-	\$1,750,000	\$1,621,600
Fee Acquisition w/ PILT	-	-	-	-	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-	-	-	-	-
Easement Acquisition	-	-	-	-	-	-	-	-
Easement Stewardship	-	-	-	-	-	-	-	-
Travel	-	-	-	-	-	-	-	-
Professional Services	\$250,000	\$379,000	\$378,400	-	-	-	\$250,000	\$378,400
Direct Support Services	-	-	-	-	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-	-	-	-	-
Capital Equipment	-	-	-	-	-	-	-	-
Other Equipment/Tools	-	-	-	-	-	-	-	-
Supplies/Materials	-	-	-	-	-	-	-	-
DNR IDP	-	-	-	-	-	-	-	-
Grand Total	\$2,000,000	\$2,000,000	\$2,000,000	-	-	-	\$2,000,000	\$2,000,000

Explain any budget challenges or successes:

Engineering (Professional Services) costs were much higher than anticipated.

Total Revenue: \$0

Revenue Spent: \$0

Revenue Balance: \$0

Of the money disclosed above, what are the appropriate uses of the money:

- E. This is not applicable as there was no revenue generated.

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland (AP)	Wetland (Final)	Prairie (AP)	Prairie (Final)	Forest (AP)	Forest (Final)	Habitat (AP)	Habitat (Final)	Total Acres (AP)	Total Acres (Final)
Restore	0	0	0	0	0	0	2	2	2	2
Protect in Fee with State PILT Liability	0	0	0	0	0	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0	0	0	0	0
Enhance	0	0	0	0	0	0	10	10	10	10
Total	0	0	0	0	0	0	12	12	12	12

Total Requested Funding by Resource Type (Table 2)

Type	Wetland (AP)	Wetland (Final)	Prairie (AP)	Prairie (Final)	Forest (AP)	Forest (Final)	Habitat (AP)	Habitat (Final)	Total Funding (AP)	Total Funding (Final)
Restore	-	-	-	-	-	-	\$1,700,000	\$1,700,000	\$1,700,000	\$1,700,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-	-	-	-	-
Enhance	-	-	-	-	-	-	\$300,000	\$300,000	\$300,000	\$300,000
Total	-	-	-	-	-	-	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000

Acres within each Ecological Section (Table 3)

Type	Metro / Urban (AP)	Metro / Urban (Final)	Forest / Prairie (AP)	Forest / Prairie (Final)	SE Forest (AP)	SE Forest (Final)	Prairie (AP)	Prairie (Final)	N. Forest (AP)	N. Forest (Final)	Total (AP)	Total (Final)
Restore	0	0	0	0	0	0	2	2	0	0	2	2
Protect in Fee with State PILT Liability	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0	0	0	0	0	0	0
Enhance	0	0	0	0	0	0	10	10	0	0	10	10
Total	0	0	0	0	0	0	12	12	0	0	12	12

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro / Urban (AP)	Metro / Urban (Final)	Forest / Prairie (AP)	Forest / Prairie (Final)	SE Forest (AP)	SE Forest (Final)	Prairie (AP)	Prairie (Final)	N. Forest (AP)	N. Forest (Final)	Total (AP)	Total (Final)
Restore	-	-	-	-	-	-	\$1,700,000	\$1,700,000	-	-	\$1,700,000	\$1,700,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-	-	-	-	-	-	-
Enhance	-	-	-	-	-	-	\$300,000	\$300,000	-	-	\$300,000	\$300,000
Total	-	-	-	-	-	-	\$2,000,000	\$2,000,000	-	-	\$2,000,000	\$2,000,000

Target Lake/Stream/River Feet or Miles

Outcomes

Programs in prairie region:

- Protected, restored, and enhanced habitat for migratory and unique Minnesota species ~ *The outcomes will be measured by periodic Fish Surveys completed by the MN DNR. An initial study was done prior to the project and studies will be completed the first year following the project and every five years following that. Successes include a greater population and species variety in the areas that are being studied.*

Parcels

Sign-up Criteria?

No

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
30.0182480	Kittson	16148218	0	\$45,000	Yes
30.0182520	Kittson	16148218	0	\$15,000	Yes
32.0004100	Kittson	16149212	0	\$20,000	Yes
32.0006400	Kittson	16149213	0	\$500,000	Yes
32.0005800	Kittson	16149213	0	\$40,000	Yes
32.0005400	Kittson	16149213	0	\$100,000	Yes
32.0005200	Kittson	16149213	0	\$40,000	Yes
32.0005000	Kittson	16149213	0	\$40,000	Yes
32.0006200	Kittson	16149213	0	\$1,100,000	Yes
32.0005600	Kittson	16149213	0	\$40,000	Yes
32.0080600	Kittson	16149213	0	\$5,000	Yes
32.0081000	Kittson	16149213	0	\$5,000	Yes
32.0081400	Kittson	16149213	0	\$5,000	Yes
32.0081600	Kittson	16149213	0	\$5,000	Yes
32.0082400	Kittson	16149213	0	\$5,000	Yes
32.0081800	Kittson	16149213	0	\$5,000	Yes
32.0082000	Kittson	16149213	0	\$5,000	Yes
32.0082800	Kittson	16149213	0	\$5,000	Yes
32.0083000	Kittson	16149213	0	\$5,000	Yes
32.0083200	Kittson	16149213	0	\$5,000	Yes
32.0081200	Kittson	16149213	0	\$5,000	Yes
32.0082200	Kittson	16149213	0	\$5,000	Yes

Parcel Map



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