



Lessard-Sams Outdoor Heritage Council

Roseau Lake Rehabilitation
Laws of Minnesota 2016 Final Report

General Information

Date: 04/11/2025

Project Title: Roseau Lake Rehabilitation

Funds Recommended: \$2,763,000

Legislative Citation: ML 2016, Ch. 172, Art. 1, Sec. 2, Subd. 5(j)

Appropriation Language: \$2,763,000 the second year is to the commissioner of natural resources to acquire land in fee and permanent conservation easements for wildlife management purposes in Roseau County under Minnesota Statutes, section 86A.05, subdivision 8, to restore and enhance wildlife habitat. A list of proposed land acquisitions and restorations and enhancements must be provided as part of the required accomplishment plan.

Manager Information

Manager's Name: Randy Prachar, Wildlife Area Manager, DNR; Tracy Halstensgard

Roseau River Watershed District

Title:

Organization: MN Department of Natural Resources, Roseau River Watershed District

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Location Information

County Location(s): Roseau.

Eco regions in which work will take place:

Northern Forest

Forest / Prairie Transition

Activity types:

Protect in Easement

Protect in Fee

Restore

Enhance

Priority resources addressed by activity:

Wetlands

Habitat

Narrative

Summary of Accomplishments

255 acres were acquired in 2021 using OHF funding. These are acres allowed the dike to be aligned with the beach ridge of the lake.

Construction of Phase 1 (see map) was initiated in September 2023. The northwest embankment was built and a weir steering the main flow of the Roseau River into a natural oxbow was installed. A water control structure (on Pine Creek) and finishing work on the dike will be completed this year.

Process & Methods

The project will provide spring-to-fall inundation of the basin for wetland wildlife. Once construction is complete, an operating plan will govern water level management such that operating levels for water in the basin will favor foraging, breeding, nesting, brood-rearing, and migration stopover habitat for a wide variety of waterfowl and other waterbirds. Only when water levels are high (as defined in the operating plan) will flood damage reduction operating measures take priority over habitat.

The project has, in Phase 1, restored primary flow of the Roseau River to a natural oxbow. Similar work will occur on the Pine Creek to restore a channelized portion of that stream. Construction of Phase 1 (of 6) was initiated in September 2023. Phase 1 involves building a dike and exterior ditch along the NW side of Roseau Lake, installation of a water control structure on Pine Creek, and installation of a weir to steer the main flow of the Roseau River into an oxbow formed by channelization, which occurred better than a century ago. A total contract for \$4.1million (of which \$1.9 million was OHF funding) has been used to date to build the dike and exterior ditch to grade and install the weir on the river. Roseau River Watershed District funds will be used to complete Phase I. We hope to have this phase completed by the end of 2024.

Phase 2 of the project is the wetland mitigation for the project, which occurs in the nearby Sprague Creek SNA/Lost River State Forest. Work began on this phase in winter 2023-24. No OHF funds are being used for this phase of the project. The wetland mitigation for this project doubles as an ecological restoration of spring fen channels in a boreal forest ecosystem that was severed by a legal ditch system better than a century ago. Through abandonment of portions of the ditch system and selective filling of these ditches, the natural hydrology will be reconnected and thus improve the quality of the habitat affected by the drainage. There are a number of rare plant and animals that will benefit from a functional lift in the habitats.

Phase 3 construction (using OHF funding granted during the last legislative session) will begin in 2025.

This appropriation was divided between acquisition and construction. It purchased a critical acquisition for the project of 255 acres on the southwest corner of the WMA. The remaining funds were applied with leveraged to fund the partial construction of the Northwest Embankment of the Roseau Lake Rehabilitation Project. This consisted of the piling and shaping of 3.8 miles of dike and exterior ditch.

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?

1. Shallow lake habitat of ~3000 acres to be restored that will benefit, in addition to waterfowl, local populations of black terns, American bitterns and other wading birds, marbled godwits and other shorebirds, and a whole array of other marsh birds.
2. Riverine habitat will be restored to 2 streams to improve diversity of such habitats in the Roseau River and Pine Creek.
3. Fen channels in a boreal forest will be reconnected, thus improving the quality of the boreal forest habitats that harbor great grey owls, black-backed woodpeckers, Connecticut warblers, among others.

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.

The project's mitigation area (not funded with OHF dollars) is in a nearby SNA/state forest. Through ditch abandonment and fill, natural fen channels will be restored, thus improving the quality of the native plant communities in that area.

The Roseau Lake basin occurs adjacent to the Roseau River. As such, the river provides riparian habitat for the lake and river, thus providing a travel corridor for wildlife between the lake and river.

Explain Partners, Supporters, & Opposition

1. Roseau River Watershed District: primary emphasis is on flood damage reduction, but they are motivated to do holistic projects.
2. Supporters: Ducks Unlimited; local landowners/farmers, Roseau County Board of Commissioners, local (House) representative
3. Opposition: Institute for Justice and a few landowners on the south side of the project. Ultimately, the project was steered away from their land holdings with little effect on project outcomes.

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

Challenges: navigating the narrow path through all of the government and private concerns to craft a project that the public could support or, at least, live with.

Unique aspects: When completed, the project will restore 2 stretches of stream to their natural flow, establish a shallow lake where it has been absent for more than a century and allow natural hydrology in a boreal forest to be restored to better extant unique habitats, plants and animals in that ecosystem. This project provides substantial habitat benefits to lake, stream, and forest in a way that benefits both fish and wildlife habitat and flood damage reduction efforts.

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

Other : Flood Hazard Mitigation Program, Red River Watershed Management Board, RIM Bonding, and a NAWCA grant submission by the RRWD in 2024

How were the funds used to advance the program?

1. Engineering to design the project.
2. Archaeological survey to satisfy cultural resources requirements.
3. Wetland delineation to determine wetland impacts from the project's infrastructure.
4. Costs of certain realty issues were covered.
5. Acquisition of 255 acres of key parcels to allow for construction of the project's dike.
6. Construction of Phase 1 of the project, which included restoration of flow to an oxbow of the Roseau River and preliminary work on restoring flow to an oxbow of Pine Creek.

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

1. Additional funding will allow subsequent phases to be funded and built. Besides Phase 1, Phase 2 is funded and will proceed during winter 2024-25. Phase 3 will be funded by a \$3 million appropriation from the LSOHC (granted to the Roseau River WD in the past legislative session); construction bids will be let later in 2024 for construction of that phase to commence in the 2025 field season.
2. The DNR and RRWD will maintain the infrastructure through a joint powers arrangement once project construction is complete. Likewise, the DNR will operate the project according to a mutually agreed-upon operating plan.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
Construction complete to indefinite	Game and Fish, Duck stamp	Maintain infrastructure	Operate project per the operating plan	Monitor results (e.g., veg. and waterfowl surveys)

Budget

Totals

Item	Requested	AP Amount	Spent	Leverage	Received Leverage	Leverage Source	Original Total	Final Total
Personnel	-	-	-	-	-	-	-	-
Contracts	\$1,693,000	\$1,900,000	\$1,900,000	\$3,000,000	-	State FHM grant	\$4,693,000	\$1,900,000
Fee Acquisition w/ PILT	\$270,000	\$255,000	\$256,500	-	-	RRWMB	\$270,000	\$256,500
Fee Acquisition w/o PILT	\$300,000	-	-	\$1,000,000	-	-	\$1,300,000	-
Easement Acquisition	\$200,000	-	-	-	-	-	\$200,000	-
Easement Stewardship	-	-	-	-	-	-	-	-
Travel	-	-	-	-	-	-	-	-
Professional Services	\$300,000	\$585,000	\$556,500	-	-	RRWD	\$300,000	\$556,500
Direct Support Services	-	-	-	-	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-	-	-	-	-
Capital Equipment	-	-	-	-	-	-	-	-
Other Equipment/Tools	-	-	-	-	-	-	-	-
Supplies/Materials	-	\$23,000	-	-	-	-	-	-
DNR IDP	-	-	-	-	-	-	-	-
Grand Total	\$2,763,000	\$2,763,000	\$2,713,000	\$4,000,000	-	-	\$6,763,000	\$2,713,000

Explain any budget challenges or successes:

The primary challenge is that completion of this project represents only 1 of 6 phases of construction of this project. RRWD funding sources will continue to add to the project as we attempt to fund and complete construction in some logical order.

Total Revenue: \$0

Revenue Spent: \$0

Revenue Balance: \$0

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

- D. This is not applicable because the recipient is a state agency or department.
- 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	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0	270	255	270	255
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0	250	0	250	0
Protect in Easement	0	0	0	0	0	0	250	0	250	0
Enhance	1,500	1,700	0	0	0	0	1,500	1,300	3,000	3,000
Total	1,500	1,700	0	0	0	0	2,270	1,555	3,770	3,255

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	-	-	-	-	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-	\$270,000	\$299,000	\$270,000	\$299,000
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	\$250,000	-	\$250,000	-
Protect in Easement	-	-	-	-	-	-	\$250,000	-	\$250,000	-
Enhance	-	\$1,376,000	-	-	-	-	\$1,993,000	\$1,038,000	\$1,993,000	\$2,414,000
Total	-	\$1,376,000	-	-	-	-	\$2,763,000	\$1,337,000	\$2,763,000	\$2,713,000

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	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0	0	0	270	255	270	255
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0	0	0	250	0	250	0
Protect in Easement	0	0	0	0	0	0	0	0	250	0	250	0
Enhance	0	0	0	0	0	0	0	0	3,000	3,000	3,000	3,000
Total	0	0	0	0	0	0	0	0	3,770	3,255	3,770	3,255

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	-	-	-	-	-	-	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-	-	-	\$270,000	\$299,000	\$270,000	\$299,000
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-	\$250,000	-	\$250,000	-
Protect in Easement	-	-	-	-	-	-	-	-	\$250,000	-	\$250,000	-
Enhance	-	-	-	\$1,376,000	-	-	-	-	\$1,993,000	\$1,038,000	\$1,993,000	\$2,414,000
Total	-	-	-	\$1,376,000	-	-	-	-	\$2,763,000	\$1,337,000	\$2,763,000	\$2,713,000

Target Lake/Stream/River Feet or Miles

4

Explain the success/shortage of acre goals

The acres reported as complete are for the full, completed project. Phase I construction will be completed with project funding. There are 6 phases to the construction.

Outcomes

Programs in forest-prairie transition region:

Increased waterfowl and upland bird migratory and breeding success ~ *Waterfowl breeding pair and brood count data have been conducted annually in the Roseau Lake basin since 1999. These surveys will continue, thus providing before-and-after population numbers. In addition, a USFWS woodcock singing ground route occurs in Roseau Lake. Again, before vs. after data will be available to measure project success.*

Programs in the northern forest region:

Improved availability and improved condition of habitats that have experienced substantial decline ~ *Shallow lake habitat of up to 3000 acres will be restored in a lake basin that has been drained for better than a century. Water will be restored to the basin annually according to an operating plan that provides for quality shallow marsh habitat. Water levels are checked at least weekly during spring-to-fall to make certain that project habitat goals are achieved. In addition, aquatic vegetation and invertebrate surveys will be conducted periodically in the lake basin to assess the suitability of the lake for waterfowl, other waterbirds, amphibians, and aquatic mammals.*

Parcels

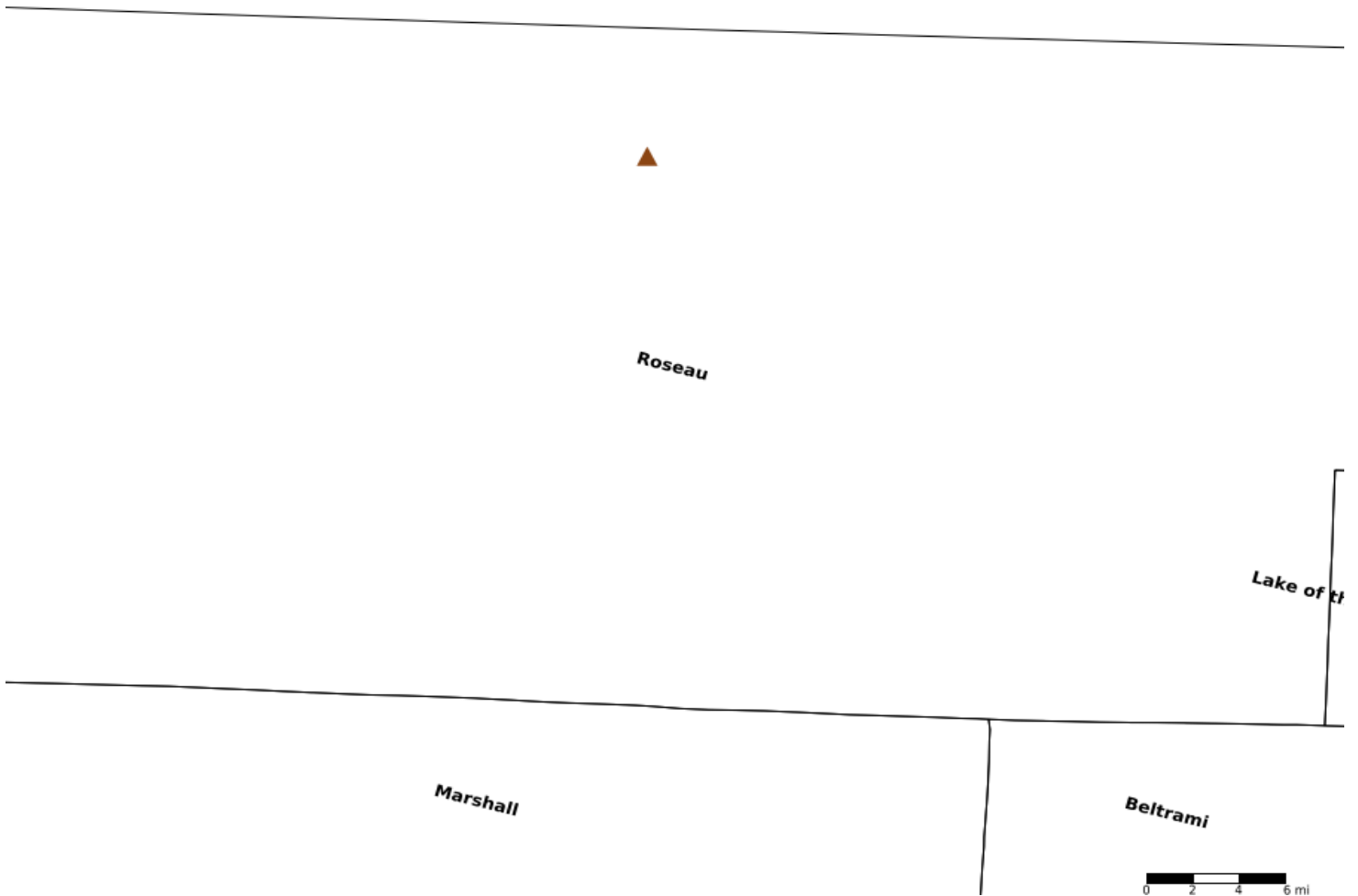
Sign-up Criteria?

No

Fee Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Private Parcels - WMA acquisition	Roseau	16341225	255	\$255,000	No

Parcel Map



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