



Lessard-Sams Outdoor Heritage Council

Big Swamp North - Peatland Restoration Project
Laws of Minnesota 2025 Accomplishment Plan

General Information

Date: 10/29/2024

Project Title: Big Swamp North - Peatland Restoration Project

Funds Recommended: \$1,442,000

Legislative Citation: ML 2025, Ch. XXX, Art. 1, Sec. 2, subd.

Appropriation Language:

Manager Information

Manager's Name: Tracy Halstensgard

Title: Administrator

Organization: Roseau River Watershed District

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Location Information

County Location(s): Roseau.

Eco regions in which work will take place:

- Forest / Prairie Transition

Activity types:

- Restore

Priority resources addressed by activity:

- Wetlands
- Habitat

Narrative

Abstract

The “Big Swamp” is a wetland /peatland complex where, in the early 1900s, a drainage effort was completed by the State to encourage settlement and agricultural production. The complexes continue to be impacted due to a series of lateral ditches which directly drain surface water altering plant communities, straightened natural water courses, and accelerating peat degradation through groundwater drawdown. The project would restore 2-3 miles of Badger Creek and more than 60 acres of habitat along the restored creek.

Design and Scope of Work

The project will prioritize restoring Badger Creek which was straightened to create, lateral ditches 1 and 3 of State Ditch 69. The project will utilize natural channel design principles to remeander Badger Creek. The Roseau River Watershed District will work closely with the DNR’s River Ecology Unit on the design of the restoration and Roseau County on the legal process following MN Statute 103E. In addition, in order to restore the quality of wetland and peatland habitat, the project will work towards a restoration of hydrology in the project area. The ditches installed by the State of Minnesota’s Drainage Commission in the 1910s lowered water tables in the project area and continuously drain the adjacent wetland leading to a change in plant community composition. Restoring hydrology to the wetlands would be accomplished by going through the legal process to abandon the lateral ditches and refilling those lateral ditches of State Ditch 69 to eliminate the wetland drainage. Approximately 19.4 miles of public drainage ditches would be formally abandoned by Roseau County with the goal of restoring them to natural ground level with appropriate fill material ensuring subsurface groundwater movement through the restoration. Restoration activity may vary depending on the whether the wetland is on mineral soils or peatland soils.

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

Fish and wildlife habitat benefits will be achieved by restoration of natural stream geomorphology to Badger Creek and the potential restoration of hydrology to large areas of the Big Swamp by eliminating the drainage occurring along the lateral ditches that will be filled by the project. Benefits to aquatic invertebrates, amphibians, reptiles, and aquatic mammals will accrue whenever water is present. Fish habitat in Badger Creek and on the Roseau River will improve as a result of improved baseflow conditions due to the elimination of drainage in the Big Swamp. As wetlands adjacent to the river are drawn down naturally, water moving through the subsoil will help to deliver baseflow to the river.

The project is consistent with the watershed plan and will compliment other ongoing work in the watershed to improve fish and wildlife habitat, improve water quality, and reduce flood damage. Among the Species of Greatest Conservation Need (SGCN) within the project area that would benefit greatly from habitat quality improvement are: Nelson’s Sparrow, Yellow Rails, American Bittern, Marbled Godwit, Short-eared Owl, Northern Harrier, and Black-crowned Night Heron

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

Land acquisition has been one of the most challenging tasks in conservation projects. With appropriate funding, this project is ready for final design and implementation as it is located within the Roseau River WMA, eliminating the need for land acquisition. This project can be a showcase example of the positive impact that wetland / peatland restoration can have on building climate resiliency into habitat management. The current RRWD Board of Managers, Roseau County Commissioners, and the MN DNR WMA managers are supportive of the project and they will bring important community support required to accomplish and maintain the project goals.

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

The MN DNR's Wildlife Action Network (WAN) is a map of quality terrestrial and aquatic habitats throughout the state. This area near the Roseau River received High and Medium High rankings in the WAN which indicates that it should be prioritized for implementing conservation actions that address habitat degradation. The WAN is comprised of several indicators of quality habitat in which the Roseau River scored High for viable population of Species of Greatest Conservation Need (SGCN), and Moderate for biodiversity significance and stream index of biological integrity.

Habitat fragmentation in the Roseau River WMA / Big Swamp habitat complex will be greatly reduced by this project. Presently the project area has an array of habitat, however due to the drainage networks constructed in the early 1910s, these communities are fragmented. In addition to the physical barriers, the effects of drainage on natural habitat have resulted in a loss in quality of habitat and increase of invasive vegetation. The proposed project will support a large mosaic of interconnected wetland, upland and stream habitat.

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

- Minnesota Prairie Conservation Plan
- Minnesota's Wildlife Action Plan 2015-2025

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.

The proposed stream restoration will work with other RRWD projects including peatland restorations, water retention sites, and a river restoration project to build resiliency into the watershed. These, and other measures will ensure the RRWD will adapt to climate change with a more systematic approach. The proposed project will provide increased habitat diversity by adding back sinuosity helping both plant and invertebrate community habitats to thrive in spite of the changing hydrology caused by climate change.

Which LSOHC section priorities are addressed in this program?

Forest / Prairie Transition

- Protect, enhance, and restore wild rice wetlands, shallow lakes, wetland/grassland complexes, aspen parklands, and shoreland that provide critical habitat for game and nongame wildlife

Outcomes

Programs in forest-prairie transition region:

- Wetland and upland complexes will consist of native prairies, restored prairies, quality grasslands, and restored shallow lakes and wetlands ~ *Miles of ditches restored to a more natural channel design along with the restoration of adjacent wetland areas will be monitored and recorded. The project is within a WMA and will fall within the MN DNR's management and monitoring plans.*

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.

This request will not supplant or be substituting for other funds for the project.

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

The Badger Creek Restoration will be maintained through a Joint Powers Agreement between the Roseau River Watershed District, Roseau County and the MN DNR. Habitat enhancements within the rehabilitated Big Swamp portion of the Roseau River WMA will be the responsibility of the Mn DNR Section of Wildlife as part of ongoing habitat maintenance within the WMA. Roseau County will continue to manage County Recreational lands in cooperation with the MN DNR.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
annual	MN DNR	Open landscape management (eg prescribed burns) on a rotational basis	Monitor & maintain vegetation;	Monitor & maintain vegetation;

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

Project Partners will complete:

- outreach to tribal authorities on natural resource benefits
- consultation with tribal authorities on cultural resources associated with the Big Swamp area.

Project Partners will plan additional education outreach on the cultural significance and history of the area.

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?

- 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 program either in the process of restoration or use as food plots?

No

Timeline

Activity Name	Estimated Completion Date
construction	June 30, 2030
Planning and design	12-01-2026

Date of Final Report Submission: 10/16/2030

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	\$1,192,000	\$110,000	USFWS Northern Forest IRA Funding Initiative	\$1,302,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	-	-	-	-
Professional Services	\$250,000	\$250,000	USFWS Northern Forest IRA Funding Initiative	\$500,000
Direct Support Services	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	-	-	-	-
DNR IDP	-	-	-	-
Grand Total	\$1,442,000	\$360,000	-	\$1,802,000

Amount of Request: \$1,442,000

Amount of Leverage: \$360,000

Leverage as a percent of the Request: 24.97%

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?

We will prioritize the Badger Creek Restoration components of the project.

Detail leverage sources and confirmation of funds:

We expect Inflation Reduction Act funding that will become available late in 2024.

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?

Professional services would need to be completed to approximately 75%. The project construction would be phased to complete portions as funding allows.

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

Not applicable.

Contracts

What is included in the contracts line?

The contract item consists of construction costs.

Professional Services

What is included in the Professional Services line?

- Design/Engineering

Federal Funds

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

Yes

Are the funds confirmed?

No

What is the approximate date you anticipate receiving confirmation of the federal funds?

12-01-24

Output Tables**Acres by Resource Type (Table 1)**

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	0	-	-	60	60
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-
Total	0	-	-	60	60

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	\$1,442,000	\$1,442,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-
Total	-	-	-	\$1,442,000	\$1,442,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	-	60	-	-	-	60
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	-	-
Total	-	60	-	-	-	60

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	\$1,442,000	-	-	-	\$1,442,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	-	-
Total	-	\$1,442,000	-	-	-	\$1,442,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	\$24,033
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	-	\$24,033	-	-	-
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

18,480 feet

Parcels

Parcel Information

Sign-up Criteria?

No

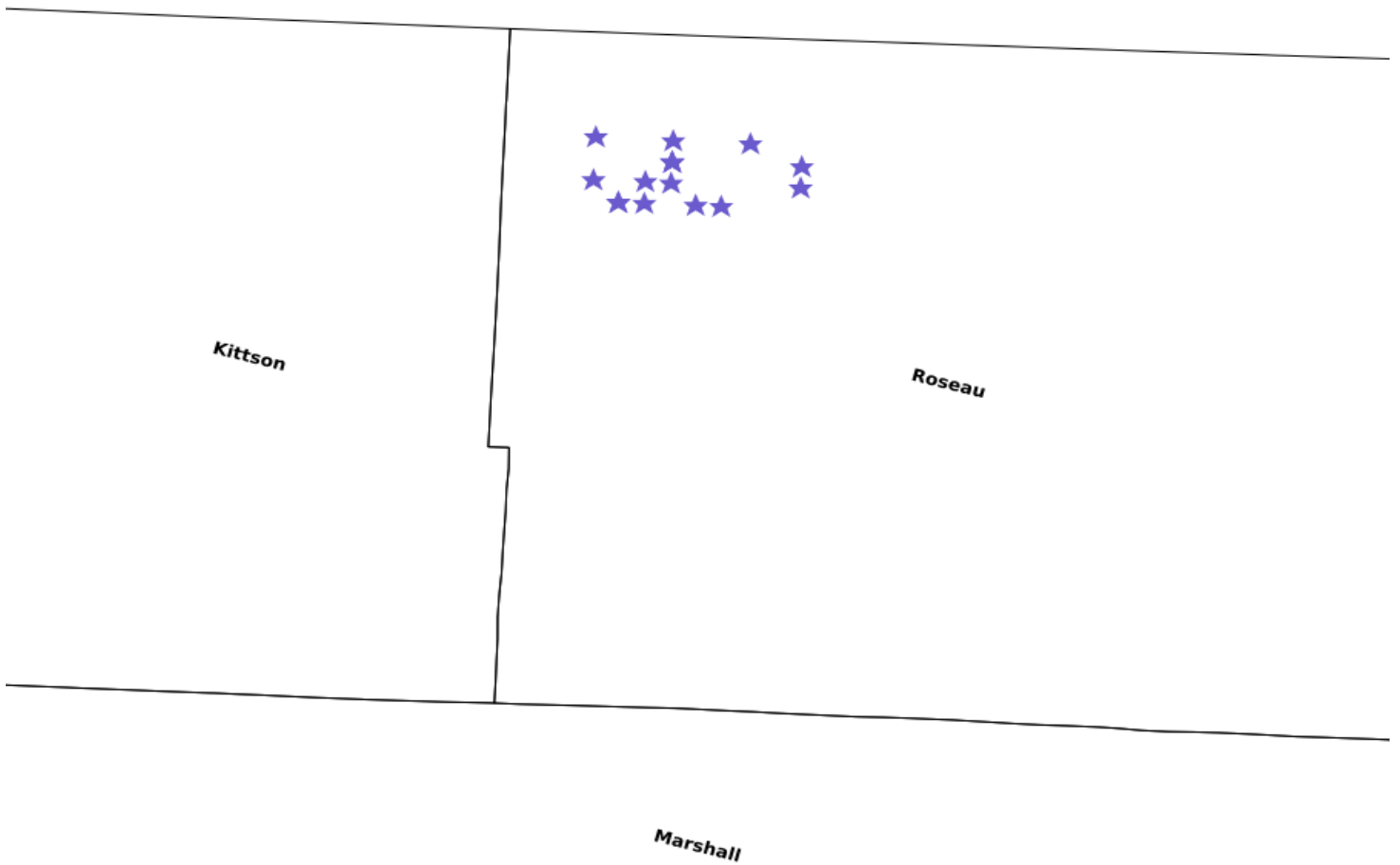
Explain the process used to identify, prioritize, and select the parcels on your list:

This project is in partnership with MN DNR and located within a Wildlife Management Area. No parcels are expected to be acquired.

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection	Description
303000400	Roseau	16243205	71	\$0	Yes	-
303003100	Roseau	16243204	90	\$0	Yes	Parcel Includes Sections: 5, 6
413000100	Roseau	16244201	55	\$0	Yes	-
413003100	Roseau	16244202	10	\$0	Yes	-
413003101	Roseau	16244202	189	\$0	Yes	-
450000100	Roseau	16343230	10	\$0	Yes	-
450000200	Roseau	16343230	10	\$0	Yes	-
450000300	Roseau	16343230	3	\$0	Yes	-
453000401	Roseau	16343231	9	\$0	Yes	-
453000701	Roseau	16343219	20	\$495,992	Yes	Parcel Includes Sections: 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 31, 32, 33
453000702	Roseau	16343222	3	\$70	Yes	-
453001000	Roseau	16343236	22	\$512,433	Yes	-
453001300	Roseau	16343225	18	\$433,575	Yes	-
463005200	Roseau	16344222	1,214	\$0	Yes	Parcel Includes Sections: 22, 23, 24, 25, 26, 27
463006000	Roseau	16344236	58	\$0	Yes	-
463006200	Roseau	16344234	411	\$0	Yes	Parcel Includes Sections: 34,35

Parcel Map



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



Lessard-Sams Outdoor Heritage Council

Big Swamp North - Peatland Restoration Project

Comparison Report

Program Title: ML 2025 - Big Swamp North - Peatland Restoration Project

Organization: Roseau River Watershed District

Manager: Tracy Halstensgard

Budget

Requested Amount: \$3,036,000

Appropriated Amount: \$1,442,000

Percentage: 47.5%

Item	Requested Proposal	Leverage Proposal	Appropriated AP	Leverage AP	Percent of Request	Percent of Leverage
Personnel	-	-	-	-	-	-
Contracts	\$2,485,000	-	\$1,192,000	\$110,000	47.97%	-
Fee Acquisition w/ PILT	-	-	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-	-	-
Easement Acquisition	-	-	-	-	-	-
Easement Stewardship	-	-	-	-	-	-
Travel	-	-	-	-	-	-
Professional Services	\$550,000	-	\$250,000	\$250,000	45.45%	-
Direct Support Services	-	-	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-	-	-
Capital Equipment	-	-	-	-	-	-
Other Equipment/Tools	-	-	-	-	-	-
Supplies/Materials	\$1,000	-	-	-	0.0%	-
DNR IDP	-	-	-	-	-	-
Grand Total	\$3,036,000	-	\$1,442,000	\$360,000	47.5%	-

If the project received 70% of the requested funding

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

Professional services would need to be completed to approximately 75%. The project construction would be phased to complete portions as funding allows.

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

Not applicable.

If the project received 50% of the requested funding

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

Professional services would need to be completed to approximately 75%. The project construction would be phased to complete portions as funding allows.

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

Not applicable.

Output

Acres by Resource Type (Table 1)

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	3,325	60	1.8%
Protect in Fee with State PILT Liability	0	-	-
Protect in Fee w/o State PILT Liability	0	-	-
Protect in Easement	0	-	-
Enhance	0	-	-

Total Requested Funding by Resource Type (Table 2)

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	\$3,036,000	\$1,442,000	47.5%
Protect in Fee with State PILT Liability	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-
Protect in Easement	-	-	-
Enhance	-	-	-

Acres within each Ecological Section (Table 3)

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	3,325	60	1.8%
Protect in Fee with State PILT Liability	0	-	-
Protect in Fee w/o State PILT Liability	0	-	-
Protect in Easement	0	-	-
Enhance	0	-	-

Total Requested Funding within each Ecological Section (Table 4)

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	\$3,036,000	\$1,442,000	47.5%
Protect in Fee with State PILT Liability	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-
Protect in Easement	-	-	-
Enhance	-	-	-