Lessard-Sams Outdoor Heritage Council

Swift Coulee Channel Restoration/ Enhancement - Phase 2

ML 2026 Request for Funding

General Information

Date: 06/26/2025

Proposal Title: Swift Coulee Channel Restoration/ Enhancement - Phase 2

Funds Requested: $3,564,000

Confirmed Leverage Funds: $1,036,700

Is this proposal Scalable?: Yes

Manager Information

Manager's Name: Morteza Maher
Title: Administrator
Organization: Middle-Snake-Tamarac Rivers Watershed District
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Fax Number:
Website: www.mstrwd.org

Location Information

County Location(s): Marshall.

Eco regions in which work will take place:

Prairie

Forest / Prairie Transition

Activity types:

Enhance

Restore

Priority resources addressed by activity:

Prairie

Habitat

Wetlands

Narrative

Abstract

The Swift Coulee Channel Restoration Project is located in Marshall County and considered a Prairie Ecological-section.
Phase 2 of this project when completed will create perpetually protected habitat under the RIM program. Phase 2 will restore over 6 miles of altered natural channel and create a habitat corridor over 400 acres through an E-channel design (low-flow meander with floodplain valley).
LSOHC funded the RIM easement acquisition of Phase 1 in 2024 and that is currently under construction.
The 2024 allocation will cover the easement acquisition of phase 2. This application is for engineering, permitting and construction costs of Phase 2.

Design and Scope of Work

Problem:
The Swift Coulee is not an exception to what is known as problem in the Prairie region of MN consisting of an altered natural waterway with degraded grasslands and native habitat adjacent to the coulee due to agricultural practices. Currently, the situation is unfavorable and fails to benefit the farmers and the ecosystem, as the waterway suffers from issues such as siltation, hybrid cattail proliferation, and recurrent flooding.

This project aims to address these critical challenges through the following initiatives:
1. Creation of a new low-flow meander and floodplain valley designed to reduce further siltation and side slope washouts.
2. Implementation of setback levees on both sides of the low-flow meander to establish a wider protective corridor. This will allow nearby farms to utilize Best Management Practices (BMPs) for effective drainage.
3. Development of habitats within the low-flow meander and floodplain valley corridor that will provide both upland and wetland habitat species, providing essential resources for resting, feeding, and living.
4. Vegetated protection of the entire project footprint through perpetual easements, with the MSTRWD assuming responsibility for ongoing maintenance according to established design criteria.

Scope of work:
The scope of work for Phase 2 related to this application includes: - Engineering, permitting, and construction of the described project in Sections 1, 2, 3, 4, 5, and 8 of McCrea Township, as well as Section 36 of Alma Township in Marshall County, Minnesota.

Priority Setting:
The Swift Coulee project has been a priority for the Middle-Snake-Tamarac Rivers Watershed District (MSTRWD) for over two decades and has consistently been included in the Watershed Management Plan. From the early 2000s, MSTRWD adopted a structured approach by forming a project work team that engaged all relevant state

and federal agencies involved in permitting, as well as local authorities and landowners. This collaborative effort led to the development of an agreed-upon Purpose and Need statement (P&N) and resulted in the identification of 13 alternative solutions to address this statement. After screening these alternatives, the team reached consensus on the most feasible option in 2021. The project directly enhances fish and wildlife habitat by enhancing and restoring wetlands and uplands and converting agricultural lands to habitat for waterfowl, grassland and migratory birds as well as grazing animals through a natural channel design that supports pool-riffle sequences for aquatic species and low-flow conditions suitable for fish passage. This is a sustainable solution that not only enhances the environment, through use of BMPs and the environment resiliency design will meet the agricultural drainage needs.

This project is now recognized as a high priority in the MSTR Comprehensive Watershed Management Plan (CWMP), which has been reviewed and approved by the Board of Water and Soil Resources (BWSR), endorsed by the Department of Natural Resources (DNR), and the Minnesota Pollution Control Agency (MPCA).

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

This project is designed to permanently restore and enhance a vital ecological corridor within the Lake Agassiz Glacial Plain, a region that once supported vast upland and wetland prairie communities. This phase of the project will reestablish over 6 miles of previously straightened and farmed stream into a sinuous, functioning two-stage channel with native vegetation and broad riparian buffers, creating approximately 400 acres of perpetual conservation easements for upland and wetland habitat. These easements are secured through the BWSR Reinvest in Minnesota (RIM) program, ensuring long-term habitat protection.

The project directly enhances fish and wildlife habitat by enhancing and restoring wetlands and uplands and converting agricultural lands to habitat for waterfowl, grassland and migratory birds as well as grazing animals through a natural channel design that supports pool-riffle sequences for aquatic species and low-flow conditions suitable for fish passage. Grade control structures in the form of rock riffles will be installed at key locations, helping maintain streambed stability while facilitating fish movement across varied flows.

This project in total (phase 1 and 2) will set the stage for a long-term plan to provide fish habitat and passage to places over 25 miles away from Red River of the North. It will reduce sediment by 8,200 tons per year and phosphorus by 7,600 pounds per year, greatly improving water clarity and reducing turbidity—a key limiting factor for aquatic habitat quality.

The broader wildlife benefits include approximately 750 acres of restored and protected wetland and upland prairie habitat across Phases 1 and 2 combined, providing critical refuge for migratory birds, game species, pollinators, and other wildlife. The site falls within the Lake Agassiz Aspen Parklands ecoregion, a transition zone between tallgrass prairie and forest ecosystems, and the restored habitat will reconnect fragmented wildlife corridors within an intensively farmed landscape.

Through a science-based and community-supported approach, the Swift Coulee project will transform a degraded watercourse into a resilient, diverse, and permanently protected landscape supporting fish, game, and wildlife for generations to come.

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

Several elements of the Swift Coulee Phase 2 proposal are time-sensitive:

1st, timely completion of engineering and permitting in 2026 is critical to meet the projected construction window beginning in 2026-7.Delays in planning would postpone project readiness and jeopardize coordination with state agencies and contractors.

2nd, landowner confidence hinges on a clear and credible timeline. The RIM easement sign-up period benefits from visible momentum, and uncertainty can slow enrollment.

3rd, alignment with funding cycles—particularly LSOHC and other state programs—requires adherence to

established milestones to secure construction funding and leverage match sources.
4th, delaying construction could lead to increased costs and obviously delay realization of benefits.

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

Phase 2 will add over 400 acres of perpetual habitat corridor to the 250 acres already protected under Phase 1, expanding the Swift Coulee complex to more than 700 acres of continuous restored wetland, riparian, and upland prairie habitat. This project reconnects fragmented habitats within an otherwise agriculturally dominated landscape by restoring a meandering stream system with wide native buffers, functioning as a linear wildlife corridor. The location within the Lake Agassiz Aspen Parklands ecoregion enhances the strategic value of this restoration by providing connectivity between isolated habitat patches that support migratory birds, pollinators, grassland species, and aquatic life. The wide channel corridor further serves as a buffer from adjacent land uses, improving ecological function and long-term habitat viability.

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

Minnesota Prairie Conservation Plan

Northern Tallgrass Prairie Ecoregion: A River and Stream Conservation Portfolio

Explain how this proposal 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.

This project is designed to increase ecosystem resilience in the face of more frequent extreme precipitation events and fluctuating flow regimes driven by climate change. By reintroducing a sinuous channel, constructing floodplain connectivity, and establishing native vegetation, the system will better manage both high-flow and drought conditions—enhancing habitat continuity across seasons and hydrologic extremes. The restored corridor will buffer temperature fluctuations, filter runoff, and reduce erosion, thereby supporting healthier aquatic ecosystems. The extensive prairie and wetland habitat is better adapted to climate variability and will provide refuge for species displaced by changing conditions. These design features will help ensure long-term viability of fish and wildlife populations in the region.

Which LSOHC section priorities are addressed in this proposal?

Prairie

Protect, enhance, or restore existing wetland/upland complexes, or convert agricultural lands to new wetland/upland habitat complexes

Describe how this project/program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife, and if not permanent outcomes, why it is important to undertake at this time:

This phase will secure over 400 acres of new habitat under perpetual easement through BWSR's RIM program, adding to the 200+ acres protected under Phase 1. These protected corridors ensure long-term/ perpetual benefits for fish, game, and wildlife by restoring a historically degraded watershed system. Permanent design features such as rock riffles, vegetated buffers, and floodplain reconnection are built to last, reducing sedimentation and improving water quality over time. By leveraging this one-time opportunity to secure landowner interest and inter-agency alignment, the project creates lasting conservation benefits and establishes a replicable model for watershed-scale restoration.

Outcomes

Programs in prairie region:

Agriculture lands are converted to grasslands to sustain functioning prairie systems ~ *This phase of the project will reestablish over 6 miles of previously straightened and farmed stream into a sinuous, functioning two-stage channel with native vegetation and broad riparian buffers, creating approximately 400 acres of perpetual conservation easements for upland and wetland habitat. These easements are secured through the BWSR Reinvest in Minnesota (RIM) program, ensuring long-term habitat protection.*

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

Clean Water Fund

Environment and Natural Resource Trust Fund

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.

No.

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

The Middle-Snake-Tamarac Rivers Watershed District will assume full responsibility for operation and maintenance under the terms of the RIM easement agreements. Design specifications will include provisions for long-term maintenance of grade control structures, vegetation, and sediment control features. Regular inspections, adaptive management, and coordination with BWSR technical staff will ensure functionality over time. A benefit of the engineered design is the reduced need for future intervention, as naturalized systems are more self-sustaining. Local support and district funding will backstop periodic maintenance needs beyond the grant period.

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

Since the land for this project is through perpetual easement with individual landowners, although we would encourage them to consider the BIPOC priorities if that becomes the case as for their landuse for recreational purposes, as the project sponsor we do not have more authority. However, MSTRWD adheres to non-discriminatory practices when awarding contracts for construction. We at the project management level will do all we can to provide equal opportunity and encourage BIPOC to be involved in this project.

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?

Permanently Protected Conservation Easements

Public Waters

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

Other OHF Appropriation Awards

Have you received OHF dollars through LSOHC in the past?
Yes

Are any of these past appropriations still OPEN?
Yes

Approp Year	Funding Amount Received	Amount Spent to Date	Funding Remaining	% Spent to Date
2024	$1,578,000	-	-	-
2023	$4,174,000	-	-	-
Totals	$5,752,000	-	$5,752,000	0.0%

Timeline

Activity Name	Estimated Completion Date
Engineering - Construction Management - Other sources are sought to aid this as well as OHF	June 2027
Permitting	December 2026
Construction	October 2027

Budget

Totals

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	-	$251,700	MSTRWD	$251,700
Contracts	$3,414,000	$500,000	WBIF (BWSR), Red River Watershed Management Board	$3,914,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	-	-	-	-
Professional Services	$150,000	$285,000	BWSR Stream Restoration	$435,000
Direct Support Services	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	-	-	-	-
DNR IDP	-	-	-	-
Grand Total	**$3,564,000**	**$1,036,700**	**-**	**$4,600,700**

Personnel

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
Administrative assistant	0.3	2.0	-	$95,300	MSTRWD	$95,300
Administrator / Project Manager	0.3	2.0	-	$156,400	MSTRWD	$156,400

Amount of Request: $3,564,000
Amount of Leverage: $1,036,700
Leverage as a percent of the Request: 29.09%
DSS + Personnel: -
As a % of the total request: 0.0%
Easement Stewardship: -
As a % of the Easement Acquisition: -

Total Leverage (from above)	Amount Confirmed	% of Total Leverage	Amount Anticipated	% of Total Leverage
$1,036,700	$1,036,700	100.0%	-	0.0%

Detail leverage sources and confirmation of funds:
1- BWSR's WBIF through 2025-2027 for $300,000 + BWSR's Stream Restoration for Engineering for $285,000 - Secured.

2- RRWMB's through Clean Water Base Funding program for $200,000 - Secured
3- MSTRWD's project fund for $300,000 - secured

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?
Another phase could be added to the project and make the proposed Phase 2 into two separate phases and shorten the upstream length of channel to be restored. This would not only reduce the restored channel length by approximately 3 miles, but also reduce the 400 acres of proposed habitat.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?
DSS is to cover the project management scope of work. Due to the nature of the project, although the scope of implementation will decrease, the project will still need to be designed, receive permits, get funded, bid out for construction and be managed for construction.

If the project received 30% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?
It would not be feasible to break the project in smaller phases as it will lose the local trust and will create political issues for the future of the project.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?
It would not be feasible to break the project in smaller phases as it will lose the local trust and will create political issues for the future of the project.

Contracts

What is included in the contracts line?
Construction Contract

Professional Services

What is included in the Professional Services line?

Design/Engineering

Other : Project Management

Surveys

Title Insurance and Legal Fees

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	0	-	0	418	418
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	74	-	0	-	74
Total	**74**	**0**	**0**	**418**	**492**

Restoration/Enhancement Acres Breakdown of Existing Protected Lands (Table 1a.2)

	RESTORE		ENHANCE	
	Lands acquired with OHF	Lands NOT acquired with OHF	Lands acquired with OHF	Lands NOT acquired with OHF
DNR Lands (WMA, State Forests, etc)	-	-	-	-
Non-DNR Lands (city, state, federal, etc.)	-	-	-	-
Easements	418	-	74	-
Total	**418**	**-**	**74**	**-**

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	$3,028,000	$3,028,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	$536,000	-	-	-	$536,000
Total	**$536,000**	**-**	**-**	**$3,028,000**	**$3,564,000**

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	0	0	418	0	418
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	74	0	74
Total	**0**	**0**	**0**	**492**	**0**	**492**

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	$3,028,000	-	$3,028,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	$536,000	-	$536,000
Total	**-**	**-**	**-**	**$3,564,000**	**-**	**$3,564,000**

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	$7,244
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	$7,243	-	-	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	$7,244	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	$7,243	-

Target Lake/Stream/River Feet or Miles

Parcels

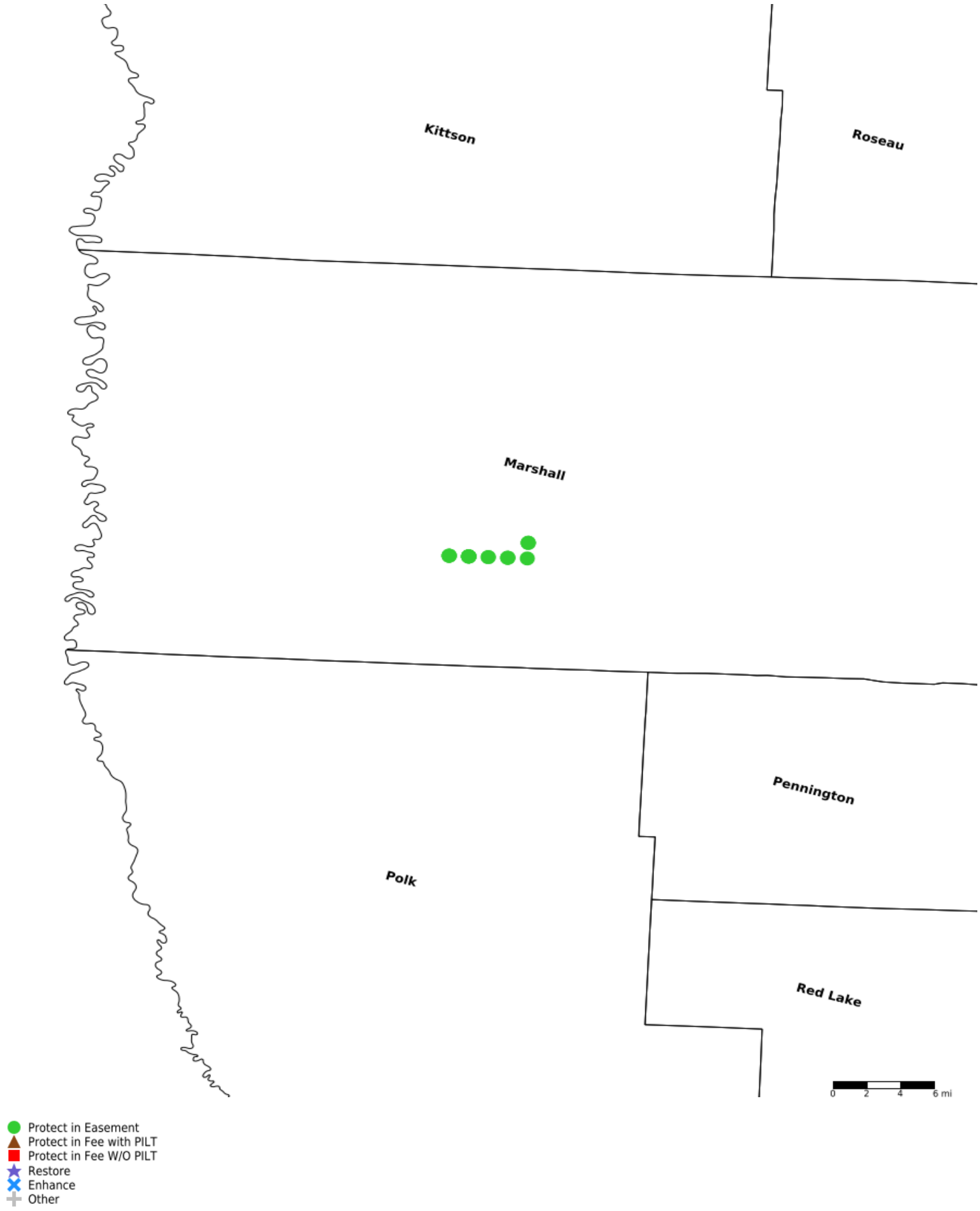
Sign-up Criteria?
No

Explain the process used to identify, prioritize, and select the parcels on your list:
All the parcels on our list are the ones the Swift Coulee runs through them. So, they are equally important and highly prioritized as for acquisition. While many of them are eligible under RIM program some are not due to the total acres. Although those excluded from RIM will be acquired through local fund, this project/ funding request will be spent on their engineering and construction. Hence not really excluded from this application.

Protect Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Cory Robert Jones	Marshall	15547204	2	$18,110	-
Darla Jones, Living Trust	Marshall	15547203	51	$370,163	-
David & Stacy Nicholls ETAL	Marshall	15647236	1	$724	-
Fagerstrom Revocable Trust	Marshall	15547202	84	$605,590	-
Jacob Anderson	Marshall	15547201	22	$161,539	-
Jacob Anderson	Marshall	15547204	16	$114,454	-
Jacob Anderson	Marshall	15547204	4	$27,527	-
Jacob Anderson	Marshall	15547204	10	$71,715	-
Jimmie & Linda Potucek	Marshall	15547205	5	$38,393	-
Jimmie & Linda Potucek	Marshall	15547205	21	$155,744	-
Joseph & Casey Pierce/ETAL	Marshall	15547204	13	$91,273	-
Loren Anderson ETAL	Marshall	15647236	13	$95,620	-
Margery Riopelle Trust	Marshall	15547204	5	$36,944	-
Michele Diehl/ETAL	Marshall	15547202	15	$105,761	-
Rebecca Jorgenson	Marshall	15547204	21	$149,224	-
Robert Fagerstrom ETAL	Marshall	15647236	19	$139,807	-
Tim Mortensen	Marshall	15547205	7	$52,156	-
Tony & Lindsey Johnson	Marshall	15547205	37	$270,922	-
Tracy Anderson	Marshall	15547203	112	$808,420	-
Virginia Kruger	Marshall	15547202	34	$249,915	-

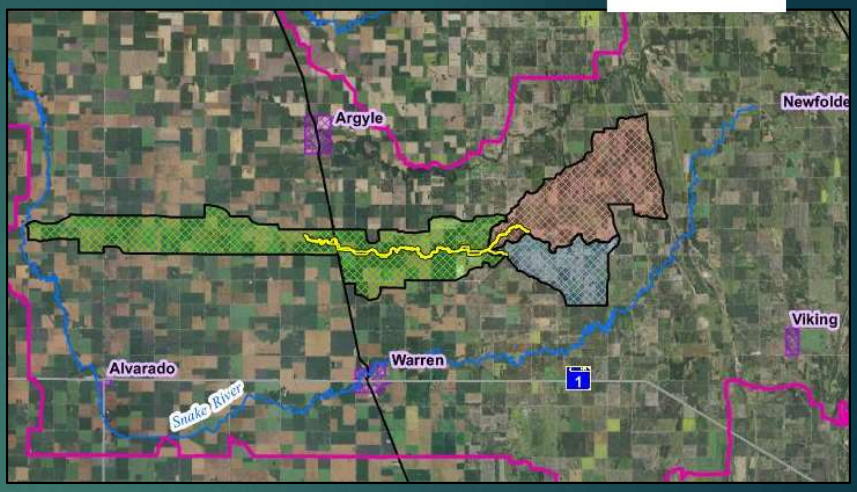
Parcel Map


Kittson
Roseau
Marshall
Pennington
Polk
Red Lake
0 2 4 6 mi
Protect in Easement
Protect in Fee with PILT
Protect in Fee W/O PILT
Restore
Enhance
Other

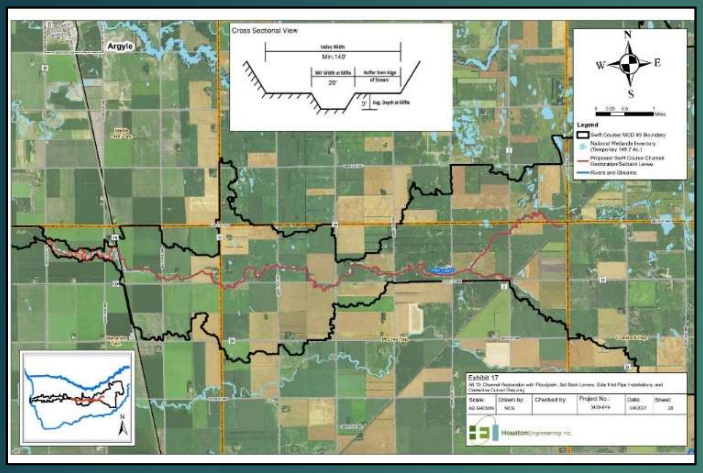
Swift Coulee Channel Restoration Project
Middle-Snake-Tamarac Rivers WD

Description/Location:

The Swift Coulee Channel Restoration Project includes restoration of meandering channel across 9 Sections of 3 different Townships in Marshall County, MN. The project includes channel restoration, using the Rosgen E-Channel design with the low frequency meander and a floodplain designed for a 10-year frequency event. Setback levees and spillways would be incorporated into the design for flood damage reduction benefits, along with side water inlet culverts and perpetual native vegetation to improve water quality and wildlife habitat benefits.



Swift Coulee is the Yellow meander in Marshall County NW MN



Project Benefits:

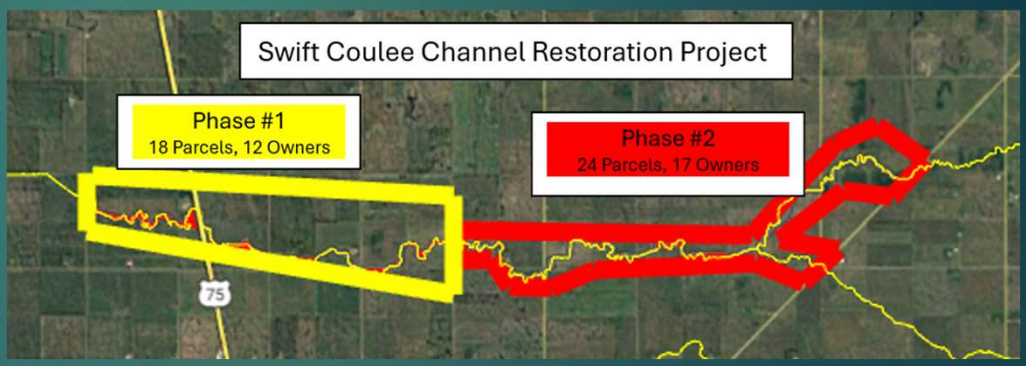
Habitat Restoration (740 acres in Total)
- Enhance upland and aquatic habitats
- Increase perpetual vegetation footprint adjacent to coulee

Erosion Reduction
- Reduce sediment transfer by over 8,000 tons/yr
- Reduce Phosphorous by over 7,000 lbs/yr

Flood Control (~42 sq miles of Drainage Area)
- Reduce sub-watershed peak volume and flows
- Reduce risk of road damages
- Reduce adjacent agricultural and private land damages
- Improve hydrologic conditions within the sub-watershed

Project Phasing
- Phase 1: 248 acres in ongoing Restoration
- Phase 2: 492 acres of additional Restoration

Swift Coulee Phasing map



Activities as of May 2025
- Phase 1 in construction
- Phase 2 Survey and preliminary Design
- Phase 2 Easement Funding secured
- Phase 2 EAW is done

Funding Partners: ($13 million)
- MSTRWD
- BWSR (RIM + 1W1P)
- RRWMB+BWSR (RIM)
- BWSR (Stream Restoration / MPCA)

Potential Future Funding Partners:
- LCCMR, LSOHC, BWSR, RRWMB

Swift Coulee Project Schedule

	2025				2026				2027			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Phase 1												
Construction												
Phase 2												
Engineering / Permitting												
Easement Acquisition												
Construction												