

Lessard-Sams Outdoor Heritage Council

ML 2022 Request for Funding

General Information

Date: 06/21/2021

Proposal Title: Shell Rock River Watershed Habitat Restoration Program - Phase XI

Funds Requested: \$3,604,600

Manager Information

Manager's Name: Courtney Phillips **Title:** Program and Project Manager

Organization: Shell Rock River Watershed District

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Location Information

County Location(s): Freeborn.

Eco regions in which work will take place:

• Prairie

Activity types:

- Enhance
- Restore
- Protect in Fee

Priority resources addressed by activity:

- Habitat
- Wetlands
- Prairie

Narrative

Abstract

The Shell Rock River Watershed District (SRRWD) is seeking funding for their Habitat Restoration Program to restore, enhance, and protect 798 acres of essential prairie upland, wetland, lake and streambank habitat across the watershed. As a result of the projects, key biological functioning parcels will be permanently protected, streambank habitat will be enhanced, vegetation and feeding sources will be restored for migratory fowl habitat and wetlands will be restored from row crop agriculture. Projects in Phase XI are critical for the benefit of fish, waterfowl, and wildlife populations, reversing the trend of wetland loss and habitat degradation.

Design and Scope of Work

In 2014, the SRRWD created a phased approach to restore, protect, and enhance degraded habitat conditions by implementing projects on a lake-shed basis. Specifically, Phase XI will contribute to the District's goals by:

- Acquire 232 acres of key targeted acquisitions to protect wooded riparian areas along Church and Eberhart Lake, establish upland prairie, and permanently protect historic oak woodlands.
- Enhance 339 acres of wetland basins, reversing wetland loss and habitat degradation while improving nesting habitat and waterfowl food sources.
- Reestablish 210 acres of vegetation into upland prairie from agricultural use in an important flyway that is crucial to nesting waterfowl, upland game, and other wading bird species.
- Habitat restoration and enhancements on 17 acres of lakeshore and streambank sites that is critical for wildlife.

This proposal uses a programmatic approach to achieve protection, restoration, and enhancement of lakes, wetlands, streams and native prairie landscapes. The program includes projects that are prioritized on the significance of the benefits to aquatic habitat, urgency of the work, availability of leveraged funds, location of projects and agreements with relevant planning documents. The SRRWD has a proven track record with the LSOHC and implementing projects that protect, restore and enhance natural resources. The SRRWD continues to receive strong support for these projects from landowners, local governments and sporting organizations.

Once completed, the program will establish waterfowl and fish populations, increase habitat for wetland dependent wildlife, will interconnect and reestablish important flyway habitats and recreate the wildlife mecca in southern Minnesota. Finally, this program will preserve an outdoor legacy for Minnesotans to use and enjoy for generations.

Background:

The SRRWD covers 246 square miles inside Freeborn County and includes a complex system of wetlands, streams, and shallow lakes that drain into the Shell Rock River. Managing habitat for this complex system is imperative to the SRRWD as well as understanding its role for providing critical habitat for fish, waterfowl and wildlife. Habitat degradation of wetlands, streams, and shallow lakes is an issue of statewide importance that requires accelerated investment in projects to reverse this degradation. Protection and restoration of this critical habitat is the highest priority of the SRRWD and is directly affected by invasive aquatic vegetation, land use changes, increased water demands, populations of invasive fish species such as common carp, and artificial drainage. Degradation in habitat influences available food sources for game fish populations that include Northern Pike, Bluegill, Yellow Perch and Walleye, and duck populations including Northern Pintail, Redhead, Canvasback and Lesser Scaup.

How does the proposal address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species?

Using the Minnesota Department of Natural Resources tool for species in greatest conservation need by habitat, the SRRWD has identified species of importance for the oak savanna landscape. Those species include birds such as the Marsh Wren and Common Moorhen, mussels such as Sheepnose and Round Pigtoe, and amphibians including the Blanding's turtle.

One of the fastest declining populations in Minnesota are the native mussels. The freshwater mussel is threatened by a multitude of sources including dams and stream channelization, wetland drainage, bank erosion, invasive mussels and water pollution. The District is focused on improving 17 acres of in-water features that will improve that quality of habitat for the threatened Round Pigtoe, and endangered Sheepnose mussels.

The Common Moorhen is listed as special concern in the oak savanna habitat and can be attributed to the loss of well-vegetated ponds and wetlands. With projects proposed by Phase XI, wetland creation and vegetation enhancement of 339 acres will provide restored habitat for both the Common Moorhen and March Wren. Blanding's turtles are listed as being a threatened species and creating streambank restorations that include turtle hibernaculums and restoring wetland with marshy areas will provide habitat for this threatened species.

What is the degree of timing/opportunistic urgency and why it is necessary to spend public money for this work as soon as possible?

For protect in fee projects, landowner willingness is a large factor in determining the timeline of projects and urgency to be completed. Securing these protection properties, while having a willing landowner, is imperative to its success. Landowners often get frustrated if funding isn't available when they want to sell. Other factors such as death and financial situations can change, resulting in properties no longer being available. If a landowner comes to the District expressing to sell for public use, the SRRWD acts as quickly as possible.

Regarding the restoration and enhancement projects, with the extent of wetland, streambank, and in-lake habitat loss in Minnesota, restoration efforts are an issue that needs immediate attention. Degraded habitat and impairments remain in the SRRWD that require action to restore and enhance native habitat for many species.

Describe how the proposal uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:

The SRRWD utilizes precision conservation modeling with monitoring to identify Property Management Zones (PMZs) on a sub-watershed basis. The PMZs was a watershed wide parcel review where habitat areas were ranked on a 1 to 3 scale. This scale incorporates a variety of measures including size of the habitat complex to be protected, proximity to existing protection, location to MN County Biological Survey (MCBS) areas and distance to a wetland or lake water source.

Historically the Shell Rock River Watershed is a shallow lake system with diverse populations of fish, waterfowl and wildlife. With degraded habitat becoming a concern, and more areas listed as below biodiversity significance in the MCBS, the District has ongoing efforts with identifying key PMZs to implement projects that expands habitat corridors and protects areas identified by the MCBS.

One of the land acquisitions is contained within areas identified on the MCBS, permanently protecting the valued significance of the land. The Eberhart acquisition is adjacent to this same complex, expanding habitat corridors to offer permanent protection.

Projects such as these are important to expanding corridors and reaching the targeted nine square mile parcels. Implementing site specific habitat restorations projects, in line with areas identified in the MCBS, are progressively improving populations of native fish, waterfowl and wildlife habitat to once again create a wildlife mecca.

Which two sections of the Minnesota Statewide Conservation and Preservation Plan are most applicable to this project?

- H2 Protect critical shoreland of streams and lakes
- H5 Restore land, wetlands and wetland-associated watersheds

Which two other plans are addressed in this proposal?

- Minnesota's Wildlife Management Area Acquisition The Next 50 Years
- North American Waterfowl Management Plan

Describe how your program will advance the indicators identified in the plans selected:

The Habitat Restoration Program accelerates the efforts of the Conservation and Preservation Plan, H2, with the restoration of 17 acres of critical shoreline habitat to protect from degradation and assure public access for fishing and natural resource management. The Habitat Restoration Program also aligns with the Minnesota's Wildlife Management Area Acquisition plan by acquiring 232 acres in Ecological Section 6, which has a goal of 68,480 new WMA land acres to be purchased.

The Habitat Restoration Program advances H5 by investing in prioritized wetlands that were drained for agricultural use and converting them back into wetland complexes to improve breeding success and migratory habitat. The 549 acres of multiple wetland restorations and vegetation enhancement will also follow Goal 2 in the North American Waterfowl Management Plan for increasing wetland habitat sufficient to sustain waterfowl population levels.

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 your program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife as indicated in the LSOHC priorities:

In Minnesota's prairie region, shallow lake and wetland ecosystems are vital components to a productive landscape for a wide array of animals. It is imperative to recognize the loss of small wetlands and native prairie in the prairie region of Minnesota. The SRRWD is proposing to reverse wetland loss by turning 339 acres of agricultural land into wetlands to provide habitat and food sources for migratory birds.

Two streambank restoration projects will create spawning habitat, cover, and refuge for fish, habitat for wildlife, and will restore the growth of healthy aquatic vegetation. It also demonstrates a permanent conservation legacy by restoring habitat on public lands, increasing public access to fishing, improving native fish reproduction and provides protection from long term endangerment from invasive plant species by incorporating vegetation management. Key targeted habitat acquisitions comprising of 232 acres will be protected to provide long term habitat for wildlife.

Phase XI also plans to reestablish 210 acres of vegetation into upland prairie for permanent habitat. All restoration and enhancement projects will have vegetation management in low grounds that include bulrush, smartweed, and marsh milkweed species to provide habitat and food sources for migratory birds. Upland prairie mix will be established to promote pollinator success. Enhancement efforts to this large scale degree provides habitat for both spring and fall migration of waterfowl, overall increase the use days by migratory birds, and provides nesting habitat.

What other fund may contribute to this proposal?

• N/A

Does this proposal include leveraged funding?

Yes

Explain the leverage:

Leverage funding is from the Albert Lea Local Option Sales Tax. Additional in-kind work includes some of the staff costs.

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.

Not applicable.

Non-OHF Appropriations

Year	Source	Amount
2012	Local Tax Levy	\$180,000
2013	Local Tax Levy	\$230,000
2014	Local Tax Levy	\$804,750
2015	Local Tax Levy	\$200,000
2016	Local Tax Levy	\$750,000
2017	Local Tax Levy	\$500,000
2018	Local Tax Levy	\$400,000
2019	Local Tax Levy	\$400,000
2020	Local Tax Levy	\$300,000

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

The SRRWD relies on multiple funding sources including a citizen driven local option sales tax, local levy, and multiple public and private funding sources to assist in the District's restoration efforts. The District has an aggressive monitoring protocol that generates yearly data used for extensive reporting. The habitat efforts that accrue from the Phase XI Restoration Program will be easily incorporated into this existing results-driven reporting framework. This reporting can be used to generate public interest and education of a watershed based restoration approach. The District has commitment and funding sources necessary to maintain existing and future natural resource management projects.

The SRRWD is authorized by Minnesota state statute 103D and operates under a series of 10 year Water Management Plans that are approved by the Minnesota Board of Soil and Water Resources (BWSR). The District recently updated its waterplan and is completing the One Watershed One Plan (1W1P) Comprehensive Management Plan process. This second generation plan, and 1W1P includes a top to bottom comprehensive list detailing natural resource restoration, enhancement, along with protection and management strategies to sustain this work.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2023-2025	Sales Tax and LSOHC	Construction and	Erosion Control and	Maintenance
		Erosion Control	Maintenance	Inspections and
				Implementations
2026+	Sales Tax	Maintenance	Maintenance	-
		Inspections	Implementations	

Identify indicator species and associated quantities this habitat will typically support:

The Upper Mississippi River and Great Lakes Region Joint Venture (UMRGLRJV) states for Mallard breeding habitat requires at least a minimum of one hectare (2.47 acres) for each breeding pair. Optimal habitat includes a complex of shallow herbaceous wetland and grasslands. Phase XI is proposing 339 acres of shallow wetland restorations that could provide new habitat niches for over 137 nesting pairs. The additional wetland or marsh conditions could provide an additional 1000 use days for lesser scaup, northern pintail, American bittern and other waterfowl, and provide feeding and nesting ground for the concerned Marsh Wren and Common Moorhen.

With the increased return of the Trumpeter Swan to southern Minnesota, local staff expects to see the increase of 7 breeding pairs of swans as a result of the restored wetland restorations. Bobolink pairs will also increase as a result of associated upland plantings. Pollinators will have increased food supplies with upland plantings that consist of native flowers.

The shoreline restorations will provide habitat structures resulting in a proposed 30% increase in the breeding success and overall biomass of fish and amphibians that can be supported. One additional pair of river otters is expected as a result of the streambank restorations as well. The key targeted property acquisitions will also support a variety of species including the threatened Blanding's turtle and Round Pigtoe mussel by providing protected shoreline and streambank habitat.

How will the program directly involve, engage, and benefit BIPOC (Black, Indigenous, People of Color) and diverse communities:

The SRRWD has used, and continues to use, the Understanding Environmental Justice in Minnesota tool, developed by the Minnesota Pollution Control Agency, to understand where BIPOC and diverse communities are present in the watershed area. The SRRWD tries to implement projects within those areas when possible based on landowner willingness.

Additionally the SRRWD has a digital option to view this program. Digital options give diverse community members an option to engage regardless of language, color, age, transportation and gender.

Activity Details

Requirements

If funded, this proposal will meet all applicable criteria set forth in MS 97A.056? Yes

Will county board or other local government approval <u>be formally sought**</u> prior to acquisition, per 97A.056 subd 13(j)?

Yes

Is the land you plan to acquire (fee title) free of any other permanent protection?

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?

Yes

Where does the activity take place?

Public Waters

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program?

No

Is this land currently open for hunting and fishing?

No

Will the land be open for hunting and fishing after completion?

Yes

Describe any variation from the State of Minnesota regulations:

All projects will follow State of Minnesota regulations.

Are there currently trails or roads on any of the proposed acquisitions?

No

Will new trails or roads be developed or improved as a result of the OHF acquisition?

No

Will the land that you acquire (fee or easement) be restored or enhanced within this proposal's funding and availability?

Yes

Other OHF Appropriation Awards

Have you received OHF dollars in the past through LSOHC?

Yes

Approp Year	Approp Amount	Amount Spent to	Leverage Reported in	Leverage Realized to	Acres Affected in	Acres Affected to	Complete/Final Report
1001	Received	Date	AP	Date	AP	Date	Approved?
2020	\$1,918,000	\$112,602	\$75,000	-	483	83	No
2017	\$1,779,000	\$738,927	\$100,000	-	296	80	No
2019	\$2,046,000	\$567,556	\$100,000	-	315	80	No
2018	\$1,421,000	\$11,515	\$100,000	-	152	2	No
2016	\$1,200,000	\$872,921	\$461,000	\$461,000	211	136	No
2015	\$2,414,000	\$2,257,412	\$60,000	\$62,617	1,320	1,317	No
2013	\$1,827,000	\$1,827,000	\$438,800	\$438,800	3,100	3,100	Yes
2011	\$2,577,000	\$2,577,000	\$7,665,000	\$7,555,400	257	257	Yes
2010	\$655,000	\$655,000	\$295,000	\$214,900	694	694	Yes

Timeline

Activity Name	Estimated Completion Date
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	TIAO7
Begin project planning, design, permitting work and start	July 2023
acquisition process	
Begin projects during the 2023 construction season	2023 Construction season to 2025
following completion of design, permits and contracting	
Complete all restorations and habitat improvement projects	2025
and finalize acquisitions	
Vegetation enhancement on restoration project; complete	June 2027
final project construction	
Maintenance and monitoring of all restoration and habitat	Ongoing
improvement projects	

Budget

Totals

Item	Funding Request	Antic. Leverage	Leverage Source	Total
Personnel	\$70,000	\$25,000	-	\$95,000
Contracts	\$1,768,000	-	-	\$1,768,000
Fee Acquisition w/ PILT	\$1,295,600	-	-	\$1,295,600
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	-	-	-	-
Professional Services	\$456,000	\$175,000	Local Option Sales Tax	\$631,000
Direct Support Services	-	-	-	-
DNR Land Acquisition Costs	\$15,000	-	-	\$15,000
Capital Equipment	-	-	-	-
Other	-	-	-	-
Equipment/Tools				
Supplies/Materials	-	-	-	-
DNR IDP	-	-	-	-
Grand Total	\$3,604,600	\$200,000	-	\$3,804,600

Personnel

Position	Annual FTE	Years Working	Funding Request	Antic. Leverage	Leverage Source	Total
Program	0.43	5.0	\$30,000	\$10,000	Local Option	\$40,000
Assistant					Sales Tax	
Program	0.43	5.0	\$40,000	\$15,000	Local Option	\$55,000
Manager					Sales Tax	

Amount of Request: \$3,604,600 **Amount of Leverage:** \$200,000

Leverage as a percent of the Request: 5.55%

DSS + Personnel: \$70,000

As a % of the total request: 1.94%

Easement Stewardship: -

As a % of the Easement Acquisition: -

Describe and explain leverage source and confirmation of funds:

The SRRWD is an agency that has a local option sales tax in place that will be used to leverage funds. The funds are confirmed until approximately 2030.

Does this proposal have the ability to be scalable?

Yes

If the project received 70% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why? 70% funding would mean a reduction of enhancement and restoration projects. All protect in fee projects would still be completed.

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

Personnel would be reduced from \$70,000 down to \$45,000, very similar to a proportionate reduction. Leveraged in-kind amounts would stay the same.

If the project received 50% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why? Funding would be centered on acquiring protection properties first. With the limited amount of funding remaining, only a few of the properties would be restored and all but two enhancement projects would have to be removed. Funding would be solicited again for restoration and enhancement.

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

The District does not use DSS. The grant funded personnel costs would be reduced to 65%, but the in-kind staff dollar amounts would be moved from personnel to professional expenses.

Personnel

Has funding for these positions been requested in the past?

Yes

Please explain the overlap of past and future staffing and position levels previously received and how that is coordinated over multiple years?

Staff time is carefully tracked using time sheets that are separated by phase and specific project to prevent any overlap in tracking hours.

Contracts

What is included in the contracts line?

All of the work in the contract line is centered on restoration and enhancement projects.

Fee Acquisition

What is the anticipated number of fee title acquisition transactions?

The anticipated number of fee title acquisition transactions is three, but some include multiple parcels.

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	324	150	0	-	474
Protect in Fee with State PILT Liability	60	150	0	22	232
Protect in Fee w/o State PILT Liability	-	-	0	-	0
Protect in Easement	0	0	0	0	0
Enhance	50	-	0	42	92
Total	434	300	0	64	798

How many of these Prairie acres are Native Prairie? (Table 1b)

Туре	Native Prairie (acres)	
Restore		150
Protect in Fee with State PILT Liability		150
Protect in Fee w/o State PILT Liability		-
Protect in Easement		0
Enhance		-
Total		300

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	\$1,497,500	\$235,000	ı	-	\$1,732,500
Protect in Fee with State PILT Liability	\$381,000	\$1,017,000	ı	\$86,500	\$1,484,500
Protect in Fee w/o State PILT Liability	-	-	ı	-	ı
Protect in Easement	-	-	ı	-	1
Enhance	\$232,600	-	ı	\$155,000	\$387,600
Total	\$2,111,100	\$1,252,000		\$241,500	\$3,604,600

Acres within each Ecological Section (Table 3)

Туре	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	0	0	474	0	474
Protect in Fee with State PILT Liability	0	0	0	232	0	232
Protect in Fee w/o State PILT Liability	0	0	0	-	0	0
Protect in Easement	0	0	0	0	0	0
Enhance	0	0	0	92	0	92
Total	0	0	0	798	0	798

Total Requested Funding within each Ecological Section (Table 4)

Туре	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	\$1,732,500	1	\$1,732,500
Protect in Fee with State	-	-	-	\$1,484,500	-	\$1,484,500
PILT Liability						
Protect in Fee w/o State	-	-	-	-	-	-
PILT Liability						
Protect in Easement	-	-	-	-	1	-
Enhance	-	-	-	\$387,600	-	\$387,600
Total	•	-	-	\$3,604,600	ı	\$3,604,600

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	\$4,621	\$1,566	-	-

HA07

Protect in Fee with State PILT Liability	\$6,350	\$6,780	-	\$3,931
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	\$4,652	-	-	\$3,690

Average Cost per Acre by Ecological Section (Table 6)

Туре	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	\$3,655	-
Protect in Fee with State	-	-	-	\$6,398	-
PILT Liability					
Protect in Fee w/o State	-	-	-	-	-
PILT Liability					
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	\$4,213	-

Target Lake/Stream/River Feet or Miles

26100 Feet

Outcomes

Programs in prairie region:

• Protected, restored, and enhanced shallow lakes and wetlands ~ Protected, restored, and enhanced shallow lakes and wetlands will be measured by the increase of use days for migrating waterfowl and increased angler success as a result of improved habitat in shallow lakes. The protected, restored and enhanced shallow lakes, wetlands, and streambanks will provide habitat to wildlife and support healthy natural resource conditions for long term benefits. The projects will offer an oasis for migratory waterfowl by reestablished and connecting MCBS corridors, and flyway habitats. Improved and permanently protected areas will provide a lasting habitat for Minnesota's unique species and provide improved access to public natural resources.

Parcels

Sign-up Criteria?

No

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

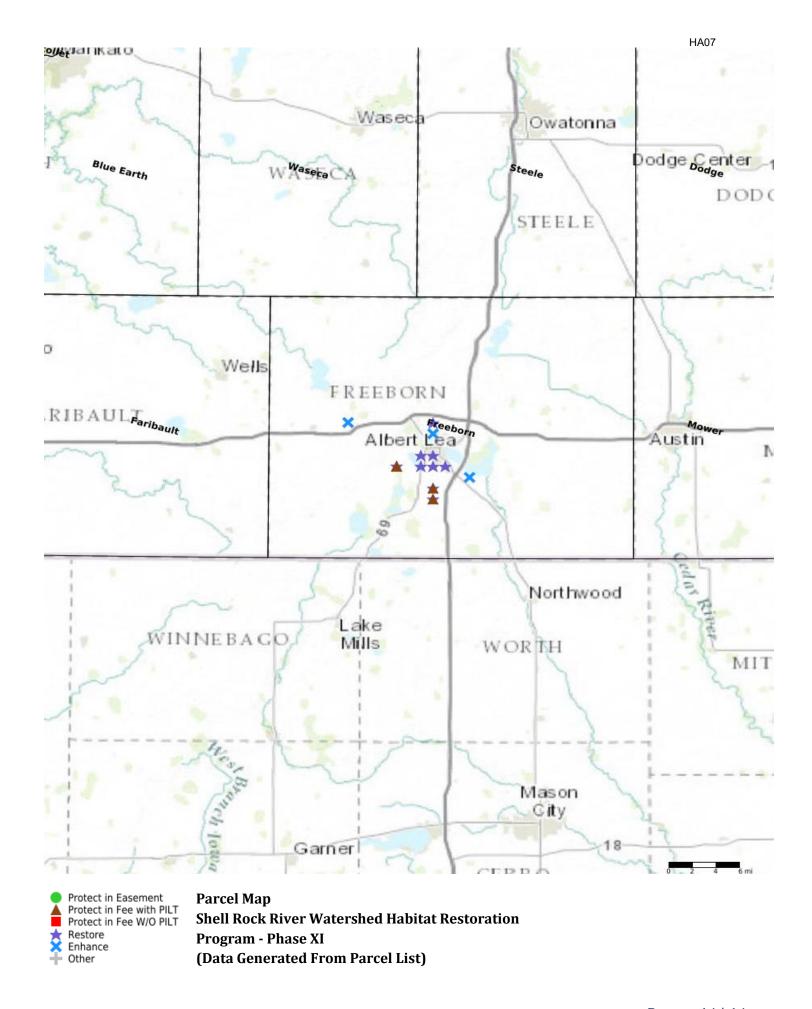
Parcels are selected using the Property Management Zones (PMZs). The PMZs are identified using precision conservation modeling, along with monitoring, and science based targeting. Parcels are then prioritized and ranked based on the degree of habitat degradation, restoration potential, and landowner interest and support. All parcels listed below have willing landowners ready to complete the projects if funding allows.

Restore / Enhance Parcels

Name	County	County TRDS		Est Cost	Existing
					Protection
South Shore Enhancement	Freeborn	10221226	40	\$90,000	No
Pickerel Lake Restoration	Freeborn	10221217	16	\$8,350	No
Pickerel Lake Restoration	Freeborn	10221220	57	\$199,395	No
Eberhart Lake Restoration	Freeborn	10222223	60	\$120,000	No
Olson Property Restoration	Freeborn	10121205	40	\$157,500	No
Olson Property Restoration	Freeborn	10221232	110	\$67,000	No
Pickerel Lake Restoration	Freeborn	10221221	48	\$141,390	No
Pickerel Lake Restoration	Freeborn	10221218	17	\$8,625	No
Pickerel Lake Restoration	Freeborn	10221219	108	\$378,840	No
Bryson Wetland Enhancement	Freeborn	10322231	50	\$212,500	No
Fountain Lake Shoreline	Freeborn	10221205	2	\$65,000	No
Bancroft Stream	Freeborn	10321232	15	\$625,000	No

Protect Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Olson Property	Freeborn	10121205	40	\$254,000	No
Olson Property	Freeborn	10221232	110	\$748,000	No
Church Lake Property	Freeborn	10222223	25	\$71,500	No
Eberhart Lake	Freeborn	10222223	60	\$366,000	No





Enhancement Projects:

South Shore (below): A 40 acre wetland enhancement to recreate historic ponding water for nesting habitat and the removal of invasive plants.

Bryson (right): Over 50 acres will be enhanced from ag/pasture ground into a wetland complex.





Bancroft Project (left): A 15 acre streambank restoration project to reduce sedimentation that smothers fish eggs. This project will also incorporate habitat features for fish and amphibians.



This proposal will restore, enhance and protect 798 acres of essential shallow lake, wetland and streambank habitat across the watershed.

As a result of the projects:

- Key biological functioning parcels will be permanently protected
- Streambank habitat will be enhanced
- Vegetation and feeding sources will be restored for migratory waterfowl habitat
- Wetlands will be restored from row crop agriculture







Shell Rock River Watershed Habitat Restoration Program Phase XI

Lessard-Sams Outdoor Heritage Fund Request: \$3,604,600

Protection Projects:

Church Lake Property and Eberhart Property (right):

Protecting 82 acres of woody upland and floodplain habitat from development. Also creating increased public access to public waters from a currently land-locked lake.



Pickerel Lake Property (right):

This agricultural ground will be restored to native upland planting to provide habitat and nesting areas to compliment the protected wetlands. Additional wetlands will be created where possible.

Eberhart Lake:

The acquisition project listed above will be seeded with natives and create wetlands where possible.



Olson Property (left):

150 acres with historic oak woodlands will be permanently protected. Restoration of this property also includes seeding with native prairie upland plants and creating wetlands were possible.

Restoration Projects:



Project Title	Description	Est. Cost	Type of Project	Water Plan	Plan Priority Connection	Sub- watershed	Section, Twshp, Range	Acres	Parcel
Pickerel Lake-Adjustable outlet	Install adjustable outlet on Pickerel Lake to enhance lake habit thru	\$ 615,25	-	TMDL	4.0 Pickerel Lake Table 4-3, Page 15, PL-11, description pg. 21	49016	T102 R22 S13	620	99130010
Upper and Lower Twin Lake Fish Barrier and Reclamation	periodic draw-downs Maintain and enhance existing game fish population and improve	\$ 743,75) Enhance	Watershed	Appendix B, Project Goal 6, Objective 2, Implementation Action 1	49011	T101 R22 S12	464	339200010
	waterfowl habitat To assist in drawdown of Upper Twin Lake to re-establish native	\$ 397,50		District Watershed		49011	T101 R22 S02	213	49020010
Upper Twin Water Level Control Station Wedge Creek Reach #6 Wetland	vegetation and improve waterfowl habitat Establishment of a wetland basin to improve waterfowl habitat	\$ 397,50	D Enhance	District TMDL	Appendix B, Project Goal 6, Objective 1, Implementation Action 1 Page 46, Table 6-3, BMP FLWB-09, Water quality project near Wedge Creek outlets.	49011	T101 R22 S02	19	140360020
Wedge Creek Restoration Reach #6	Install BMP's for improvement of in stream spawning and over-wintering	\$ 450,80		TMDL	Page 46, Table 6-3, BMP FLWB-09, Water quality project near Wedge Creek outlets.	49013	T103 R22 S36	4	140360020
Wedge Creek Reach #1 Vegetative Restoration	habitat of native fish species Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 72,45) Enhance	Watershed District	Appendix E, Objective 2, Implementation Action 2	49013	T102 R21 S6	41	80060070
Pickerel Lake Site #12 Channel/Wetland Restoration	Establishment of a wetland basin to improve waterfowl habitat and Northern Pike spawning	\$ 40,25	O Restore	Watershed District	Appendix B, Goal 2, Objective 3.1, Upper Watershed treatments to enhance and sustain improvements in the lake environment.	49016	T102 R22 S13	5	90505030
Targeted Habitat Acquisition; Owens Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 400,00) Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Preservation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49016	T102 R21 S30	40	80360020
Miller Tract - Wetland restoration	Establishment of a wetland basin to improve waterfowl habitat	\$ 201,25) Restore	Watershed District	Appendix B, Goal 2, Objective 3.1, Upper Watershed treatments to enhance and sustain improvements in the lake environment.	49014	T102 R23 S1	75	100010013
Targeted Habitat Acquisition; Mud Lake Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 140,00) Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Preservation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49016	T102 R22 S12	27	90120130
Targeted Habitat Acquisition; Schroeder Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 280,00) Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Preservation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49018	T101 R21 S33	23	30330040
IC & E WPA Wetland Enhancement	Establishment of native vegetation and wetland basins for waterfowl and wildlife habitat	\$ 67,72	5 Enhance	TMDL	Appendix B, Goal 2, Objective 3.1, Upper Watershed treatments to enhance and sustain improvements in the lake environment.	49013	T102 R22 S6	171	090060020, 090060
Targeted Habitat Acquisition; Orr Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 666,75) Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Preservation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49007	T102 R22 S06	80	90060013
Headwaters Stream Bank Habitat Restoration	Restoration of habitat along the headwater property to improve wildlife habitat	\$ 775,62	5 Restore	Watershed District	Appendix E, Goal 2, Objective 3. Implemetation Action 2	49007	T102 R21 S25	25	80250021
Vandegrift Wetland Restoration	Establishment of a wetland basin to improve waterfowl habitat	\$ 225,62	5 Restore	TMDL	6.0 Fountain Lake, Table 6-3, pg 44, FLWB-15 description pg. 51	49013	T103 R22 S36	20	140362022
Targeted Habitat Acquisition; Belshan Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 456,02	5 Protect	Watershed District	Appendix B, Goal 2, Objective 3.1, Upper Watershed treatments to enhance and sustain improvements in the lake environment.	49016	T102 R21 S20	57	80200320
Shell Rock River Streambank Restoration	Restoration of habitat along the headwater property to improve wildlife habitat	\$ 615,00) Enhance	Watershed District	Appendix E, Goal 2, Objective 3. Implemetation Action 2	49009	T101 R20 S31	15	29310030
Orr Wetland Restoration	Establishment of a wetland basin to improve waterfowl habitat	\$ 371,25	Restore	TMDL	6.0 Fountain Lake, Table 6-3, pg 44, FLWB-14 description pg. 51	49013	T102 R22 S6	80	90060013
Fountain Lake In-Lake Habitat Restoration	Creation of in-lake and shoreline habitat structures for improved fisheries habitat	\$ 1,324,77	5 Restore	Watershed District	Appendix B, Goal 2, Objective 3. Habitat rehabilitation that focuses on implementation of both in lake and upper watershed projects	49003	T102 R21 S05	232	348120010
Targeted Habitat Acquisition; Chruch Lake Property	Permanently protect and provide access to Church Lake while improving the condition of habitat	\$ 609,00) Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Preservation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49011	T102 R22 S26	80	90260050
Fountain Lake Pioneer Lakeshore Restoration	Restoration of habitat along Fountain Lake to improve fish spawning	\$ 137,22	5 Restore	Watershed District	Appendix E, Goal 2, Objective 3. Implemetation Action 2	49003	T102 R21 S8	3	347290050
geted Habitat Acqusition; Shell Rock River Glenville Property	Restoration of habitat along streambank property to improve wildlife habitat	\$ 132,61) Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Preservation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49007	T101 R20 S06	21	275000080
Targeted Habitat Acquisition; Bancroft Property	Protection and establishment of native vegetation and wetland basins for waterfowl and wildlife habitat	\$ 857,90	Protect	Watershed District	Appendix B, Goal 2, Objective 3.1, Upper Watershed treatments to enhance and sustain improvements in the lake environment.	49012	T103 R21 S21 & 16	112	130210030, 130160
Bancroft Wetland Restoration	Establishment of a wetland basin to improve waterfowl habitat	\$ 365,00	Restore	Watershed District	Appendix E, Goal 2, Objective 2.2 Prioritize wetlands throughout the watershed	49012	T103 R21 S21 & 16	50	130210030, 130160
Panicum Prairie Enhancement Project	Enhance native vegetation to improve waterfowl feeding and nesting habitat in a key targeted area	\$ 477,50) Enhance	Watershed District	Appendix B, Goal 7, Objective 4. Enhance water quality throughout the restoration of aquatic plants, wildlife habitat and fisheries	49011	T101 R21 S35	300	39350010
Targeted Habitat Acquisition: Pickerel Lake Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 1,347,00) Protect	Watershed District	Appendix B, Goal 2, Objective 3.1, Upper Watershed treatments to enhance and sustain improvements in the lake environment.	49016	T102 R21 S17,18,19,20	218	80190090, 0801700 080180250, 080200
IC & E WPA Wetland Enhancement	Establishment of native vegetation and wetland basins for waterfowl and wildlife habitat	\$ 200,00) Enhance	Watershed District	Appendix B, Goal 2, Objective 3.1, Upper Watershed treatments to enhance and sustain improvements in the lake environment.	49014	T102 R22 S6; T103 R23 S1	171	90060020, 0900600 100010013, 100010
Bancroft Stream Enhancement	Enhancement of habitat along Bancrfot Creek to improve wildlife habitat	\$ 625,00) Enhance	Watershed District	Appendix B, Goal 7, Objective 4. Enhance water quality throughout the restoration of aquatic plants, wildlife habitat and fisheries	49012	T102 R21 S29 & 32	15	130280102, 130290100,3429400
Fountain Lake Shoreline	Enhancement of habitat along Fountain Lake to improve fish spawning	\$ 65,00) Enhance	Watershed District	Appendix E, Goal 2, Objective 3. Implentation Action 2	49012	T102 R21 S5	2	342720040
Bryson Wetland Enhancement	Establishment of a wetland basin to improve waterfowl habitat	\$ 212,50) Enhance	Watershed District	Appendix B, Goal 2, Objective 3.1, Upper Watershed treatments to enhance and sustain improvements in the lake environment.	49014	T103 R22 S31	50	140310045
South Shore Enhancement	Enhancement of native vegetation and wetland basins for waterfowl and wildlife habitat	\$ 90,00) Enhance	Watershed District	Appendix B, Goal 2, Objective 3. Habitat rehabilitation that focuses on implementation of both in lake and upper watershed projects	49003	T102 R21 S26	40	80260111
Targeted Habitat Acqusition; Eberhart Lake		\$ 366,00) Protect	Watershed	Appendix B, Goal 2, Objective 3.2, Preservation and enhancement of shoreland and riparian zones	49016	T102 R22 S23	60	90230060
Targeted Habitat Acquisition; Church Lake	Permanently protect and provide access to Church Lake while improving	\$ 71,50		District Watershed	around lakes and along water courses in the watershed. Appendix B, Goal 2, Objective 3.2, Preservation and enhancement of shoreland and riparian zones	49011	T102 R22 S23	22	90230080
Targeted Habitat Acquistion; Olson Property	the condition of habitat Protect and Reestablish native vegetation to improve upland gamehabitat	\$ 1,002,00		District Watershed	around lakes and along water courses in the watershed. Appendix E, Goal 2, Objective 3. Implementation Action 2	49008	T102 R21 S32	150	080320050, 030050
Pickerel Lake Restoration	Protect and reestablish native vegetation to improve upland game and	\$ 736,60		District Watershed	Appendix E, Goal 2, Objective 2.2 Prioritize wetlands throughout the watershed	49016	T102 R21 S17,18,19,20	249	80190090, 0801700
Eberhart Lake Restoration	waterfowl nesting habitat Restoration of habitat along the Eberhart Lake to improve wildlife habitat	\$ 120,00		District Watershed	Appendix B, Goal 2, Objective 3. Habitat rehabilitation that focuses on implementation of both in	49016	T102 R22 S23	60	080180250, 080200 90230060
Olson Property Restoration		\$ 225,00		District Watershed	lake and upper watershed projects Appendix B, Goal 2, Objective 3.1, Upper Watershed treatments to enhance and sustain	49008	T102 R21 S32	150	080320050, 030050
or Coding for Project Phases:	Troceet and reestablish harive vegetation to improve upland gamenabitat	223,00	Restore	District	improvements in the lake environment.	45000	1102 1121 332	130	000320030, 030030

Phase 4	ML 15, FY 16	Expires 18 & 20	Phase 5	ML 16, FY 17	Expires 19 & 21	
Phase 6	ML 17, FY 18	Expires 20 & 22	Phase 7	ML 18, FY 19	Expires 21 & 23	
Phase 8	ML 19, FY 20	Expires 22 & 24	Phase 9	ML 20, FY 21	Expires 23 & 25	
Phase 10	MI 21 FV 22	Evnires 24 & 26	Phase 11	MI 22 FY 23	Exnires 25 & 27	