

Lessard-Sams Outdoor Heritage Council

Fiscal Year 2018 / ML 2017 Request for Funding



Date: May 26, 2016

Program or Project Title: Shell Rock River Watershed Habitat Restoration Program - Phase VI (HRE05)

Funds Requested: \$4,122,400

Manager's Name: Andy Henschel
Title: Director of Field Operations
Organization: Shell Rock River Watershed District
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County Locations: Freeborn

Regions in which work will take place:

- Prairie

Activity types:

- Restore
- Enhance
- Protect in Fee

Priority resources addressed by activity:

- Wetlands
- Habitat

Abstract:

The Shell Rock River Watershed District's Phase VI Habitat Restoration Program will restore, enhance and protect 577 acres of essential shallow lake, wetland and stream bank habitat across the watershed. Over the next five years, agricultural landscapes will be turned into wetland complexes, shallow lakes burdened with rough fish will be restored to provide breeding and migratory waterfowl habitats, streambanks will be enhanced, and key biological functioning parcels will be permanently protected. Projects in Phase VI 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:

The Shell Rock River Watershed District (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 is influencing available food sources for game fish populations that include Northern Pike, Bluegill, Yellow Perch and Walleye, and duck populations that include Northern Pintail, Redhead, Canvasback and Lesser Scaup.

With this growing concern, in 2014 the SRRWD created a phased, \$20 million dollar approach to restore, protect, and enhance degraded habitat conditions through implementations of projects on a lake-shed basis. The Watershed Habitat Restoration Program is designed to accomplish the following objectives: remove rough fish species and restore desirable fish, waterfowl and wildlife

populations, enhance native aquatic rooted vegetation, increase fish habitat and spawning areas, waterfowl nesting areas, improve waterfowl breeding and migratory success, restore streambanks, increase wildlife habitat and its natural prairie, increase and improve community use of restored natural resources and protect the watershed from invasive species.

These long term goals will interconnect and re-establish important flyway habitats within Minnesota. Restored habitat will improve the breeding and migratory habitat base for species and recovery of their populations. The goal is to establish waterfowl and fish populations, increase habitat for wetland dependent wildlife, and create the wildlife mecca that was recorded in the late 1800's.

Phase VI will contribute to these goals by:

- Acquire 191 acres of key targeted lands to re-establish native vegetation, improve nesting habitat and waterfowl food sources.
- Restore 95 acres of wetland basins to improve upland game and waterfowl nesting habitat.
- Enhance 266 lake acres with rotenone treatment to control rough fish and re-establish native aquatic vegetation.
- Restore 25 acres of streambank within the Shell Rock River Aquatic Management Area to improve wildlife habitat.

The program includes projects that are prioritized on the significance of the benefits to aquatic habitat, urgency of the work, availability of leverage funding, 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. This proposal uses a programmatic approach to achieve prioritized aquatic habitat protection, restoration, and enhancement of lakes, wetlands and streams across the Watershed to once again create the wildlife mecca. Finally, this program will preserve an outdoor legacy for Minnesotans to use and enjoy for generations.

Which sections of the Minnesota Statewide Conservation and Preservation Plan are applicable to this project:

- H4 Restore and protect shallow lakes
- H5 Restore land, wetlands and wetland-associated watersheds

Which other plans are addressed in this proposal:

- Long Range Plan for Fisheries Management
- Managing Minnesota's Shallow Lakes for Waterfowl and Wildlife

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

The Habitat Restoration Program accelerates the efforts of the Minnesota Statewide Conservation and Preservation Plan to restore and improve shallow lake habitat by reducing the number of lakes in the turbid-water state. Abundant populations of invasive fish create a turbid state that can be reversed with in-lake management techniques. The District supplements this effort by conducting a fish kill on three shallow lakes to increase habitat and aquatic vegetation. The SRRWD is restoring wetland complexes that were once drained to provide benefits to wildlife, water quality, and important ecological processes that are in the Shallow Lakes for Waterfowl and Wildlife Plan.

The Habitat Restoration Program also fits in the Long Range Plan for Fisheries Management by accelerating the core function of conserving, maintaining, or rehabilitating Minnesota's aquatic resources to serve environmental purposes with the in-lake management projects and streambank restorations.

Which LSOHC section priorities are addressed in this proposal:

Prairie:

- Protect, enhance, and restore migratory habitat for waterfowl and related species, so as to increase migratory and breeding success

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:

Minnesota's shallow lake and wetland ecosystems are a vital component to a productive landscape for a variety of wildlife including waterfowl, furbearers, reptiles, amphibians and fish. The Habitat Restoration Program aligns with the LSOHC priority to protect, enhance, and restore habitat for waterfowl and related species, as to increase migratory and breeding success by proposing projects that will improve waterfowl feeding and nesting habitat.

Shallow lakes and wetlands that have emergent vegetation and abundant invertebrates provide feeding and nesting areas for Canvasbacks, Redheads, Lesser Scaup, and Mallards. Key in-lake management techniques will reduce the turbid state of water and in return will improve aquatic vegetation, invertebrate populations and enhance shallow lake productivity. This will provide habitat for migratory waterfowl and related species, also increasing migratory and breeding success.

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 agricultural land into wetlands to provide habitat and food sources for migratory birds. Creating these wetlands provides habitat for both spring and fall migration of waterfowl and overall increasing the use days by migratory birds.

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 are prioritized, evaluated conservation measures and project locations chosen to mitigate specific areas contributing to degradation of habitat which reduces populations of aquatic vegetation, fish, waterfowl and wildlife within the lake-shed.

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 Freeborn County Biological Survey (MCBS), the District has ongoing efforts with identifying key PMZs to implement projects that expands habitat corridors and protects areas identified by the MCBS.

The lake reclamation projects for School Section, Halls, and Sugar lakes are adjacent to properties identified on the MCBS as being below, moderate, and high biodiversity significance, respectively. The wetland restorations and 2 of the 3 land acquisitions are also adjacent to sites identified on the MCBS. Projects such as these are important to expanding corridors and complexes and reaching the targeted 9 square mile parcels. Additional projects include the stream bank restoration project that is contained within a moderate biodiversity significant area which the District plans to further enhance. 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.

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:

The SRRWD understands that when critical habitats are lost due to land use changes and other factors, restoring the habitat is imperative to the protection of species and their ecological processes. Important species are disappearing at an alarming rate and the SRRWD has the opportunity to protect wetland habitats and the species that call it home.

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 the Marsh Wren and Common Moorhen for birds, mussels such as Sheepnose and Round Pigtoe, and amphibians including the Blanding's Turtle.

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 VI, wetland creation and vegetation enhancement can 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 habitats like turtle hibernaculums and restoring wetland with marshy areas will provide habitat for this threatened species.

One of the fastest declining populations in Minnesota has been the loss of Minnesota's 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 habitat and water quality conditions, as well as providing habitat with instream features will improve that quality of habitat for threatened Round Pigtoe, and endangered Sheepnose mussels.

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

- The in-lake management projects are expected to improve feeding and resting habitat to provide an additional 20,000 use days for diving ducks such as Lesser Scaup, Redheads and Canvas backs.
- The lake management projects will also improve breeding habitat to support an additional 20 nesting pairs of wood ducks.
- Fish management is designed to take rough fish populations to near zero.
- Stream bank restoration of 25 acres will provide an additional breeding pair of river otters.
- Additional wetland or marsh conditions could provide an additional 600 use days for Pintail ducks.

Outcomes:

Programs in prairie region:

- Protected, restored, and enhanced habitat for migratory and unique Minnesota species *will be measured by the increase of use days for migrating waterfowl and improved habitat acres for unique species. 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. They will offer an oasis for*

migratory waterfowl by re-establishing and connecting MCBS corridors, and flyway habitats. Improved and permanently protected areas will provide a lasting habitat for Minnesota's unique species.

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

The Shell Rock River Watershed District is authorized by 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 second generation Waterplan that was approved by BWSR in 2015. This second generation plan includes a top to bottom comprehensive list detailing natural resource restoration, management, enhancement and protection strategies.

The SRRWD relies on multiple funding sources including a citizen driven local option sales tax, local levy, and multiple public and private funding sources including five previously LSOHC phased projects to assist in the Districts 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 VI 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 enhancement projects.

Explain the things you will do in the future to maintain project outcomes:

Year	Source of Funds	Step 1	Step 2	Step 3
2020	Local Option Sales Tax and LSOHC	Construction and Erosion Control Inspections	Erosion Control and Maintenance Inspections and Maintenance Implementations	Maintenance Inspections and Maintenance Implementations
2021	Local Option Sales Tax and LSOHC	Construction and Erosion Control Inspections	Erosion Control and Maintenance Inspections and Maintenance Implementations	Maintenance Inspections and Maintenance Implementations
2022	Local Option Sales Tax and LSOHC	Maintenance Inspections and Maintenance Implementations		Maintenance Inspections and Maintenance Implementations

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

With the extent of wetland and prairie loss in Minnesota, restoration efforts is an issue that needs attention immediately. Degraded habitat and impairments remain in the SRRWD that require action that will restore and enhance native habitat for many species. Science and resource based planning have been utilized to strategically select projects that will advance restoration goals specified in our Habitat Restoration Program.

LSOHC funds accelerate ongoing conservation efforts by increasing the number of successful projects the District is able to complete each year in the watershed. Projects selected in the program contribute to the success of long-term management plans, enhance growth of aquatic plants, reduced populations of undesirable fish, increase of native fish communities, improve waterfowl nesting and breeding success and provide habitat for fish, waterfowl, and wildlife.

How does this proposal include leverage in funds or other effort to supplement any OHF appropriation:

The Habitat Restoration Program, Phase VI, builds and expands upon previous LSOHC funding including the Wedge Creek, White Lake and Fountain Lake Fish Barriers (2009-10); Shell Rock River Headwater's Project (2011-12); Albert Lea Lake Dam and Fish Barrier (2013-14); Goose Creek Fish barrier (CPL Grant) (2013-14); Shell Rock River Headwaters Restoration, Phase II (CPL Grant) (2014-15); Shell Rock River Watershed Habitat Restoration Program, Phase IV (2015-16); and the Habitat Restoration Program, Phase V (2016-17). The LSOHC funded projects consolidates previous SRRWD projects including the Fish Barrier Program, Streambank Restoration Program, the ISTS Program, and the Wetland Restoration Program.

The District has a proven record of leveraging local funds into successful projects in a timely manner. The District will also leverage its experience to ensure optimum project design and implementation, resulting in rapid habitat restoration and enhancement benefits. In turn, implementation of these projects will provide long-term protection of the SRRWD's shallow lakes, wetlands and streams. Projects that are implemented are focused on recovery of impaired resources on a watershed basis that provide measurable and lasting results.

Relationship to other funds:

- Not Listed

Describe the relationship of the funds:

Not Listed

Describe the source and amount of non-OHF money spent for this work in the past:

Appropriation Year	Source	Amount
2012	Local Tax Levy - 25% Grant Match	180,000
2013	Local Tax Levy - 25% Grant Match	230,000
2014	Local Tax Levy - 25% Grant Match	804,750
2015	Local Tax Levy - 25% Grant Match	200,000

Activity Details

Requirements:

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

Will local government approval be sought prior to acquisition - **Yes**

Is the land you plan to acquire 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 activity on permanently protected land per 97A.056, subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 - **Yes (WMA, AMA, Public Waters)**

Do you anticipate federal funds as a match for this program - **No**

Land Use:

Will there be planting of corn or any crop on OHF land purchased or restored in this program - **No**

Is this land currently open for hunting and fishing - **Yes**

School Section, Halls and Sugar Lakes are currently open to hunting and fishing that comply with State Regulations. The Shell Rock River is also open to state fishing regulations. The wetland restorations and land acquisitions are currently not open to hunting and fishing.

Will the land be open for hunting and fishing after completion - **Yes**

Yes and will follow the State of Minnesota fishing and hunting laws

Are there currently trails or roads on any of the acquisitions on the parcel list - **No**

Will new trails or roads be developed as a result of the OHF acquisition - **No**

Accomplishment Timeline

Activity	Approximate Date Completed
Begin project planning, design, permitting work and acquisitions	July 2017
Begin projects during the 2018 construction season following completion of design, permits and contracting	2018 Construction Season to 2019
Complete all restoration and habitat improvement projects and finalize acquisitions	End of 2019 Construction Season
Vegetation enhancement on restoration projects	June 2020
Maintenance and monitoring of all restoration and habitat improvement projects	Ongoing

Budget Spreadsheet

Total Amount of Request: \$4,122,400

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$45,000	\$0		\$45,000
Contracts	\$1,105,600	\$0		\$1,105,600
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$2,125,300	\$0		\$2,125,300
Easement Acquisition	\$0	\$0		\$0
Easement Stewardship	\$0	\$0		\$0
Travel	\$0	\$0		\$0
Professional Services	\$491,300	\$200,000	Local Option Sales Tax	\$691,300
Direct Support Services	\$0	\$0		\$0
DNR Land Acquisition Costs	\$15,000	\$0		\$15,000
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$340,200	\$0		\$340,200
DNR IDP	\$0	\$0		\$0
Total	\$4,122,400	\$200,000		\$4,322,400

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Program Manager	0.43	1.00	\$25,000	\$0		\$25,000
Program Assistant	0.30	1.00	\$20,000	\$0		\$20,000
Total	0.73	2.00	\$45,000	\$0		\$45,000

Amount of Request: \$4,122,400

Amount of Leverage: \$200,000

Leverage as a percent of the Request: 4.85%

DSS + Personnel: \$45,000

As a % of the total request: 1.09%

Easement Stewardship: \$0

As a % of the Easement Acquisition: -%

Does the amount in the contract line include R/E work?

Yes, all of the work in the contract line is centered on restoration and enhancement projects.

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.

Does this proposal have the ability to be scalable? - Yes

Tell us how this project would be scaled and how administrative costs are affected, describe the "economy of scale" and how outputs would change with reduced funding, if applicable:

Yes, Phase VI has scalable projects, however a reduction in funds would lead to a decrease in potential projects that the SRRWD could complete.

Output Tables

Table 1a. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	95	0	0	25	120
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	191	191
Protect in Easement	0	0	0	0	0
Enhance	0	0	0	266	266
Total	95	0	0	482	577

Table 2. Total Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$596,900	\$0	\$0	\$791,200	\$1,388,100
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$2,391,500	\$2,391,500
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$342,800	\$342,800
Total	\$596,900	\$0	\$0	\$3,525,500	\$4,122,400

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	120	0	120
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	191	0	191
Protect in Easement	0	0	0	0	0	0
Enhance	0	0	0	266	0	266
Total	0	0	0	577	0	577

Table 4. Total Requested Funding within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$0	\$0	\$0	\$1,388,100	\$0	\$1,388,100
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$2,391,500	\$0	\$2,391,500
Protect in Easement	\$0	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$342,800	\$0	\$342,800
Total	\$0	\$0	\$0	\$4,122,400	\$0	\$4,122,400

Table 5. Average Cost per Acre by Resource Type

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$6,283	\$0	\$0	\$31,648
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$12,521
Protect in Easement	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$1,289

Table 6. Average Cost per Acre by Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$0	\$0	\$0	\$11,568	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$12,521	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$1,289	\$0

Target Lake/Stream/River Feet or Miles

8

I have read and understand Section 15 of the Constitution of the State of Minnesota, Minnesota Statute 97A.056, and the Call for Funding Request. I certify I am authorized to submit this proposal and to the best of my knowledge the information provided is true and accurate.

Parcel List

Explain the process used to select, rank and prioritize the parcels:

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.

Section 1 - Restore / Enhance Parcel List

Freeborn

Name	TRDS	Acres	Est Cost	Existing Protection?
Headwaters Stream Bank Restoration	10221225	25	\$776,300	No
School Section Lake	10322236	266	\$327,800	No
Wedge Creek Wetland Restoration	10322215	35	\$225,600	No
Wedge Creek Wetland Restoration	10322216	60	\$371,300	No

Section 2 - Protect Parcel List

Freeborn

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Haug Property	10120231	37	\$456,000	No	Full	Not Applicable
Leland Property	10221203	21	\$266,200	No	Full	Full
Owens Property	10221230	133	\$1,639,200	No	Full	Not Applicable

Section 2a - Protect Parcel with Bldgs

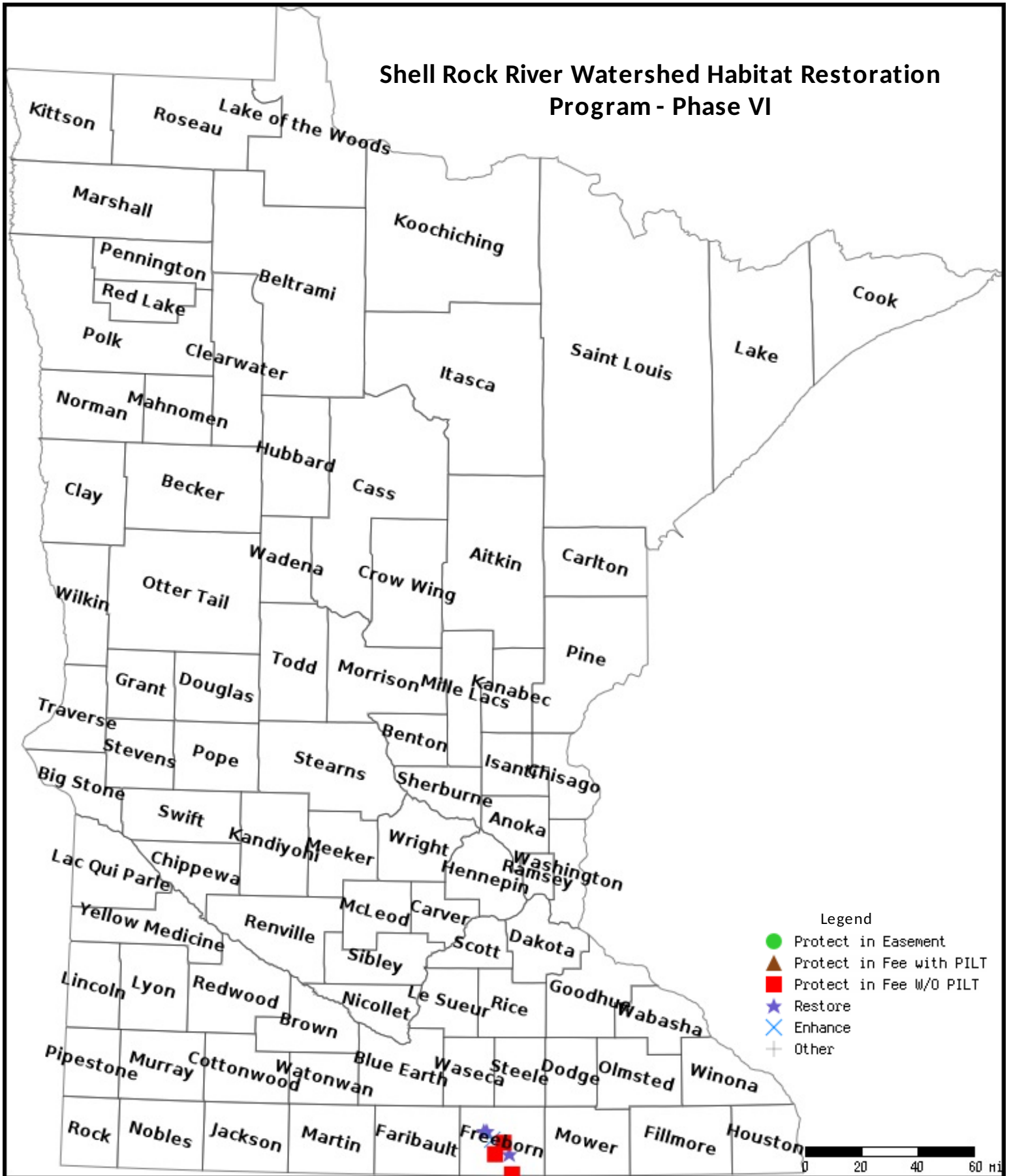
No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Parcel Map

Shell Rock River Watershed Habitat Restoration Program - Phase VI



Data Generated From Parcel List



Pictured Left: Previously LSOHC Funded Albert Lea Lake Dam and Fish Barrier.



Shell Rock River Watershed Habitat Restoration Program - Phase VI

2016 LSOHC Fund Request: \$4,122,400

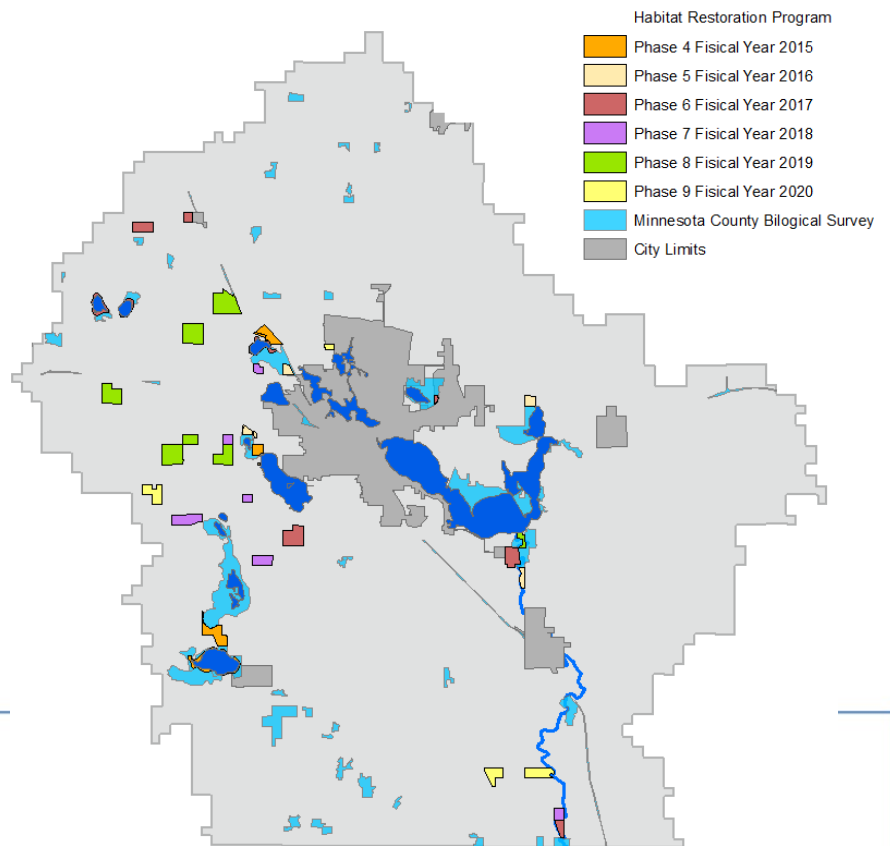
About the Watershed Habitat Restoration Program

The District's Phase VI Habitat Restoration Program will restore, enhance and protect 577 acres of essential shallow lake, wetland and stream bank habitat across the watershed. Projects will turn agricultural landscapes into wetland complexes, shallow lakes burdened with rough fish will be restored to provide breeding and migratory waterfowl habitats, streambanks will be enhanced, and key biological functioning parcels will be permanently protected. Projects in Phase VI are critical for the benefit of fish, waterfowl and wildlife populations, reversing the trend of wetland loss and habitat degradation.

The SRRWD Habitat Restoration Program is a phased, \$20 million watershed-wide effort to restore, protect and enhance degraded habitat conditions through implementation of projects on a lake-shed basis. This Phase VI proposal is the latest effort that builds on and complements six previously funded LSOHC Projects, including Phase IV and V of the Habitat Restoration Program, along with the Albert Lea Lake Dam and Fish Barrier Project.

Benefits

The results of the Watershed Habitat Restoration Program will be restoration of desirable fish, waterfowl and wildlife populations, enhance native aquatic root vegetation, increase fish habitat and spawning areas, waterfowl nesting areas, improve waterfowl breeding and migratory success, restore streambanks, and will protect the watershed from invasive species.



Watershed Features

The Shell Rock River Watershed includes a series of shallow lakes, wetlands and streams flowing into the Cedar River Watershed, Upper Iowa River, Mississippi River and ultimately the Gulf of Mexico. Habitat degradation is due to the effects of surface water, high nutrients, invasive aquatic vegetation and invasive fish species. This impacts food sources for duck and fish populations that have traditionally called the watershed home.



Shell Rock River Watershed Habitat Restoration Program - Phase VI

2016 Lessard-Sams Outdoor Heritage Fund Request: \$4,122,400

Project Highlights

Restore

- Restore 95 acres of wetland basins to improve upland game and waterfowl nesting habitat.
- Restore 25 acres of streambank within the Shell Rock River AMA to improve wildlife habitat.

Protect

- Acquire 191 acres of key targeted lands to re-establish native vegetation, improve nesting habitat and waterfowl food sources

Enhance

- Enhance 266 lake acres with rotenone treatment to control rough fish and re-establish native aquatic vegetation

SRRWD LSOHC Timeline

- **2009-2010:** The SRRWD received a grant from the LSOHC to install fish barriers at Wedge Creek, White Lake, and Fountain Lake. The fish barriers will prevent migration of rough fish upstream of Fountain Lake to spawn.
- **2012:** The SRRWD purchased a 257 acre parcel surrounding the headwaters to the Shell Rock River with funds awarded from LSOHC. This land acquisition was a key step in replacing the Albert Lea Lake Dam and Fish Barrier.
- **2014-2015:** With roughly \$1.8 million in LSOHC funds, the District was able to replace the Albert Lea Lake Dam that includes an electric fish barrier and drawdown structure. This project allows for vegetation enhancement in Albert Lea Lake and protects the District's chain of lakes against aquatic invasive species.
- **2014-2015:** In 2015, the SRRWD received LSOHC funding for Phase IV of the Habitat Restoration Program. Four main projects will be completed including: Wedge Creek Reach #6, Upper Twin Pumping Station, Upper and Lower Twin Fish Barrier, and Pickerel Lake Adjustable Outlet.
- **2015-2016:** In 2016, the SRRWD received LSOHC funding for Phase V of the Habitat Restoration Program. The \$1.2 million dollars will be used for projects including wetland restorations, vegetative restorations, and key targeted land acquisitions.

Wedge Creek Fish Barrier



LSOHC Director Mark Johnson at the Albert Lea Lake Dam and Fish Barrier Ribbon Cutting



**Shell Rock River Watershed District
Resolution 2016-09
L-SOHC Grant Application**

BE IT RESOLVED that the Shell Rock River Watershed District, hereinafter referred to as "Authorized Official" (Authorized Agent) acts as legal sponsor for the Shell Rock River Watershed Habitat Restoration Program - Phase VI contained in the

Lessard-Sams Outdoor Heritage Council (L-SOHC) Application to be submitted on May 26, 2016, and that Authorized Official is hereby authorized to apply to the LSOHC, hereinafter referred to a "State," for funding of this project on behalf of the applicant.

BE IT FURTHER RESOLVED that the Applicant has the legal authority to apply for financial assistance, and the institutional, managerial and financial capability to ensure adequate acquisition, maintenance and protection of the proposed project.

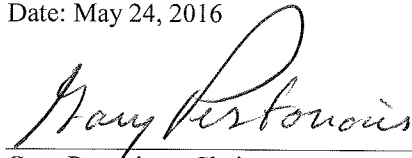
BE IT FURTHER RESOLVED that the Applicant has not incurred any construction costs or has not entered into any written agreements to purchase property proposed by this project.

BE IT FURTHER RESOLVED that the Applicant has not violated any Federal, State, or local laws pertaining to fraud bribery, graft, kickbacks, collusion, conflict of interest or other unlawful or corrupt practice.

BE IT FURTHER RESOLVED that upon approval of the application by the State, the Authorized Official may enter into an Agreement with the State for the above-referenced project, and that the Applicant certifies that it will comply with all applicable laws and regulations as stated in the contract agreement.

NOW, THEREFORE BE IT RESOLVED that Andy Henschel, Director of Field Operations or Brett Behnke, District Administrator for the Shell Rock River Watershed District, is hereby authorized to execute such Agreements as are necessary to implement the project on behalf of the Applicant.

Date: May 24, 2016



Gary Pestorius, Chair
Shell Rock River Watershed District



Alan O. Bakken, Secretary
Shell Rock River Watershed District

L-SOHC Grant

Shell Rock River Watershed Habitat Restoration Program

Project List

Project Title	Description	Est. Cost	Type of Project	Water Plan	Plan Priority Connection	Subwatershed Number	Section, Twshp, Range	Acres	Parcel
Pickereel Lake-Adjustable outlet	Install adjustable outlet on Pickereel Lake to enhance lake habit thru periodic draw-downs	\$ 615,250	Restore	TMDL	4.0 Pickereel 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	Maintain and enhance existing game fish population and improve waterfowl habitat	\$ 743,750	Enhance	Watershed District	Appendix B, Objective 4, pg.6	49011	T101 R22 S12	464	339200010
Upper Twin Water Level Control Station	To assist in drawdown of Upper Twin Lake to re-establish native vegetation and improve waterfowl habitat	\$ 397,500	Enhance	Watershed District	Appendix E, Objective2, Implementation Action 2	49011	T101 R22 S02	213	49020010
Wedge Creek Reach #6 Wetland	Establishment of a wetland basin to improve waterfowl habitat	\$ 243,570	Enhance	TMDL	Page 46, Table 6-3, BMP FLWB-09, Water quality project near Wedge Creek outlets.	49013	T103 R22 S36	16	140360020
Wedge Creek Restoration Reach #6	Install BMP's for improvement of in stream spawning and over-wintering habitat of native fish species	\$ 450,800	Restore	TMDL	Page 46, Table 6-3, BMP FLWB-09, Water quality project near Wedge Creek outlets.	49013	T103 R22 S36	150	140360020
Wedge Creek Reach #1 Vegetative Restoration	Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 72,450	Enhance	Watershed District	Appendix E, Objective2, Implementation Action 2	49013	T102 R21 S6	181	80060070
Pickereel Lake Site #12 Channel/Wetland Restoration	Establishment of a wetland basin to improve waterfowl habitat and Northern Pike spawning	\$ 40,250	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	587	90505030
Targeted Habitat Acquisition; Olson Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 406,725	Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Presevation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49007	T102 R21 S36	33	80360020
Albert Lea Lake - Unnamed Creek - Wetland restoration	Establishment of a wetland basin to improve waterfowl habitat	\$ 201,250	Restore	Watershed District	Appendix B, Goal 2, Objective 3.1, Upper Watershed treatments to enhance and sustain improvements in the lake environment.	49003	T102 R20 S06	202	70060030
Targeted Habitat Acquisition; Mud Lake Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 332,775	Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Presevation 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; Remakel Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 87,815	Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Presevation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49016	T102 R22 S12	7	90120050
Targeted Habitat Acquisition; Owens Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 1,639,225	Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Presevation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49016	T102 R21 S30	133	80360020
School Section, Halls, and Sugar Lakes Fish Community Reclamation	Rotenone treatment of School Section Lake to kill the rough fish and reestablish native aquatic vegetation	\$ 327,750	Enhance	TMDL	6.0 Fountain Lake, Table 6-3, pg. 43, FLWB-20, description pg. 53	49013	T103 R22 S36	266	-
Targeted Habitat Acquisition; Houg Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 456,025	Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Presevation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49009	T101 R20 S31	37	20310020
Targeted Habitat Acquisition; Leland Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 266,220	Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Presevation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49012	T102 R21 S03	21	342110040
Wedge Creek Wetland Restoration in T103 R22 S16	Establishment of a wetland basin to improve waterfowl habitat	\$ 371,250	Restore	TMDL	6.0 Fountain Lake, Table 6-3, pg 44, FLWB-14 description pg. 51	49014	T103 R22 S16	60	140160030
Headwaters Stream Bank Habitat Restoration	Restoration of habitat along the headwater property to improve wildlife habitat	\$ 776,250	Restore	Watershed District	Appendix B, Objective 3. Implemetation Action 3	49007	T102 R21 S25	25	80250021
Wedge Creek Wetland Restoration in T103 R22 S15	Establishment of a wetland basin to improve waterfowl habitat	\$ 225,625	Restore	TMDL	6.0 Fountain Lake, Table 6-3, pg 44, FLWB-15 description pg. 51	49014	T103 R22 S15	35	140150100

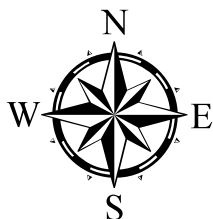
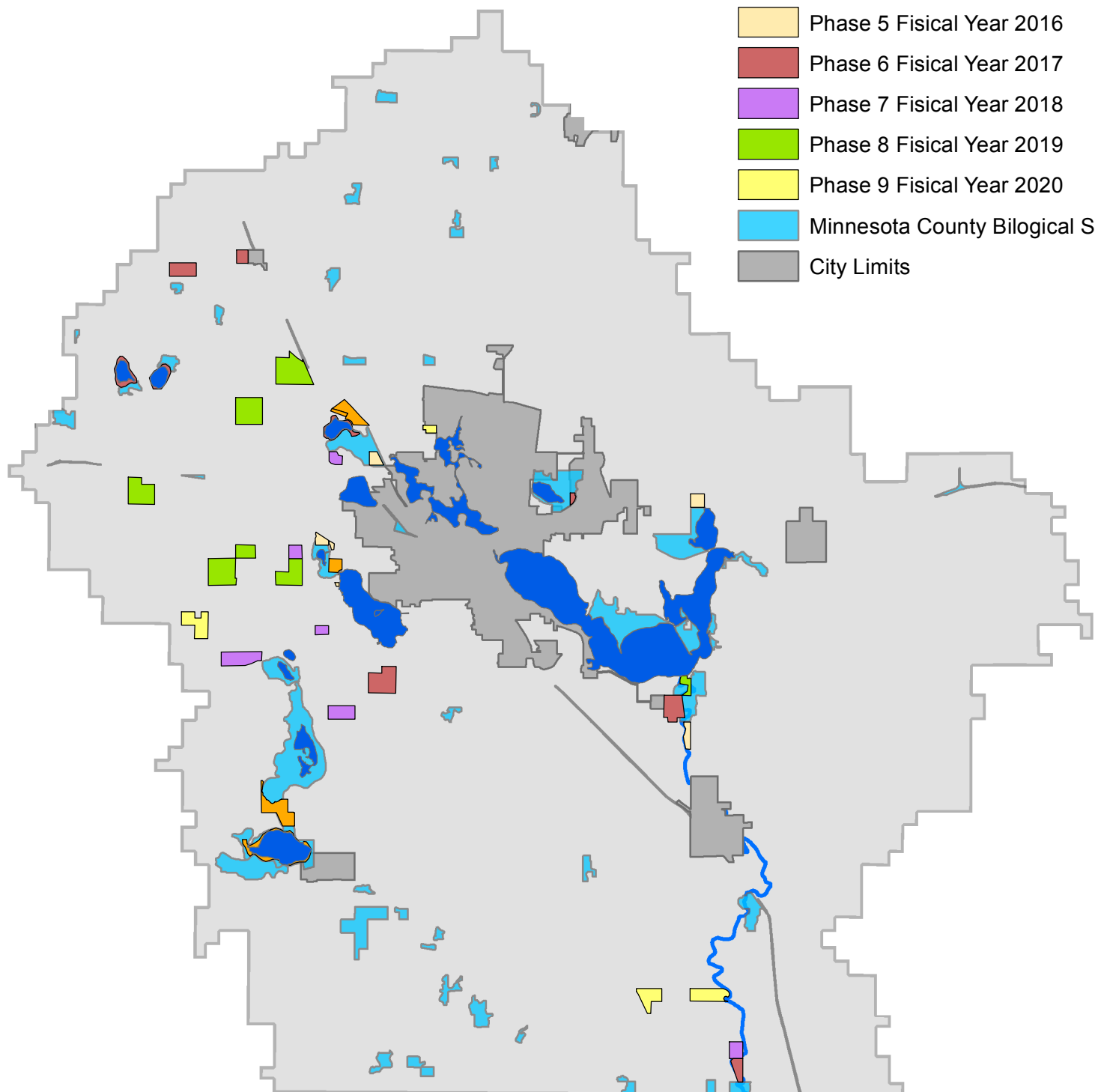
Targeted Habitat Acquisition; Dakin Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 295,800	Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Presevation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49009	T101 R20 S31	24	20310010
Pickerel Lake Subwatershed Wetland Restoration and Habitat Improvement	Restoration of wetland site in Pickerel Lake Subwatershed to improve wildlife habitat	\$ 621,000	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 S22	110	90220030
Pickerel Lake Subwatershed Wetland Restoration and Habitat Improvement	Restoration of wetland site in Pickerel Lake Subwatershed to improve wildlife habitat	\$ 69,000	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 S24	15	90240080
Pickerel Lake Subwatershed Wetland Restoration and Habitat Improvement	Restoration of wetland site in Pickerel Lake Subwatershed to improve wildlife habitat	\$ 1,656,000	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 S25	300	90250010
Pickerel Lake Subwatershed Wetland Restoration and Habitat Improvement	Restoration of wetland site in Pickerel Lake Subwatershed to improve wildlife habitat	\$ 51,750	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 S11	8	90110100
Targeted Habitat Acquisition; Petersen School Section Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 320,450	Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Presevation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49003	T103 R22 S36	32	90010110
Targeted Habitat Acquisition; Palmer Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 332,775	Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Presevation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49007	T102 R21 S25	27	80250040
Wedge Creek Wetland Restoration in T102 R22 S5	Establishment of a wetland basin to improve waterfowl habitat	\$ 433,750	Restore	TMDL	6.0 Fountain Lake, Table 6-3, pg 43, FLWB-12 description pg. 50	49014	T102 R22 S5	21	90050060
Wedge Creek Wetland Restoration in T103 R22 S34	Establishment of a wetland basin to improve waterfowl habitat	\$ 426,250	Restore	TMDL	6.0 Fountain Lake, Table 6-3, pg 44, FLWB-13 description pg. 51	49015	T103 R22 S34	22	140340010
Wedge Creek Wetland Restoration in T103 R22 S26	Establishment of a wetland basin to improve waterfowl habitat	\$ 249,375	Restore	TMDL	6.0 Fountain Lake, Table 6-3, pg 44, FLWB-16 description pg. 51-52	49015	T103 R22 S26	11	140260020
Pickerel Lake Subwatershed Wetland Restoration and Habitat Improvement	Restoration of wetland site in Pickerel Lake Subwatershed to improve wildlife habitat	\$ 331,200	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 S10	60	90100100
Pickerel Lake Subwatershed Wetland Restoration and Habitat Improvement	Restoration of wetland site in Pickerel Lake Subwatershed to improve wildlife habitat	\$ 58,650	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 S15	11	90150080
Pickerel Lake Subwatershed Wetland Restoration and Habitat Improvement	Restoration of wetland site in Pickerel Lake Subwatershed to improve wildlife habitat	\$ 193,200	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 S14	35	90140010
Targeted Habitat Acquisition; Lang Property	Protect and Reestablish native vegetation to improve upland game and waterfowl nesting habitat	\$ 455,400	Protect	Watershed District	Appendix B, Goal 2, Objective 3.2, Presevation and enhancement of shoreland and riparian zones around lakes and along water courses in the watershed.	49017	T 101 R21 S25	207	30250030
Pickerel Lake Subwatershed Wetland Restoration and Habitat Improvement	Restoration of wetland site in Pickerel Lake Subwatershed to improve wildlife habitat	\$ 469,200	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 S21	85	90210010
Fountain Lake Variable Crest Dam		\$ 2,978,500	Enhance			49003	T102 R21 S09	550	347870020

Color Coding for Project Phases:

Phase 4	
Phase 5	
Phase 6	
Phase 7	
Phase 8	
Phase 9	

Habitat Restoration Program

- Phase 4 Fiscal Year 2015
- Phase 5 Fiscal Year 2016
- Phase 6 Fiscal Year 2017
- Phase 7 Fiscal Year 2018
- Phase 8 Fiscal Year 2019
- Phase 9 Fiscal Year 2020
- Minnesota County Biological Survey
- City Limits



Habitat Restoration Program

0 1.75 3.5 Miles

