

# Lessard-Sams Outdoor Heritage Council

## Fiscal Year 2021 / ML 2020 Request for Funding



Date: May 30, 2019

Program or Project Title: Accelerated Shallow Lakes and Wetland Enhancement Phase 12

Funds Requested: \$3,951,000

Manager's Name: Ricky Lien  
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County Locations: Anoka, Big Stone, Carver, Chippewa, Crow Wing, Lac Qui Parle, Polk, Pope, Roseau, Stevens, and St. Louis.

### Eco regions in which work will take place:

- Northern Forest
- Forest / Prairie Transition
- Southeast Forest
- Prairie
- Metro / Urban

### Activity types:

- Enhance

### Priority resources addressed by activity:

- Wetlands

### Abstract:

This proposal will accomplish shallow lake and wetland enhancement and restoration work throughout Minnesota, with a focus on the prairie region. Over 13,800 acres of wetland habitat will be impacted. The proposal is comprised of two components - (1) projects to engineer and implement shallow lake and wetland enhancement activities; (2) funding to continue the existing Roving Habitat Crew in Region 3 to conduct habitat management work on public lands. Funding is requested to purchase pumps for the Region 1 and 3 Roving Habitat crews to expand their ability to provide active management to wetlands.

### Design and scope of work:

Minnesota wetlands, besides being invaluable for waterfowl, also provide other desirable functions and values - habitat for a wide range of species, groundwater recharge, water purification, flood water storage, shoreline protection, and economic benefits. An estimated 90% of Minnesota's prairie wetlands have been lost, more than 50% of our statewide wetland resource. In remaining wetlands, benefits are too often compromised by degraded habitat quality due to excessive runoff and invasive plants and fish. See the report on the quality of Minnesota's existing wetlands that it included as an attachment to this proposal. This proposal will accomplish needed wetland habitat work throughout Minnesota, with a focus on the prairie region.

ROVING HABITAT CREW - Numerous plans pertaining to wetlands and shallow lakes call for effective management of existing habitat to provide maximum benefits for wildlife. Past Outdoor Heritage Fund (OHF) monies were used to establish regional Roving Habitat Crews to address needed upland and wetland habitat management work on public lands. We have seen remarkable recoveries of both habitat quality and subsequent wildlife use of wetlands when we have invested in active management. The funding requested in this proposal will be targeted to continuing the wetland habitat work accomplished by the Region 3 Roving Habitat Crew. Work will include, but not be limited to, managing water levels, maintaining fish barriers and other wetland infrastructure, including winterkill of fish, and controlling invasive plants and fish. Note that the proposal includes the acquisition of capital equipment in the form of pump units for the Regions 1 and 3 Roving Habitat Crews. Currently the Region 1 Roving Habitat Crew has a large pump, fuel cube, pipes, and trailers for transportation. This equipment was gifted to the DNR by Ducks Unlimited. Pumping of wetlands/shallow lakes to facilitate drawdowns or to dewater water control structure construction sites is increasingly needed as more properties are brought under

management, extreme rain events make hydrological management difficult, and we look to increase our management of smaller wetlands.

**SHALLOW LAKES / WETLAND PROJECTS** -The habitat quality of the shallow lakes/wetlands still on the landscape can be markedly improved by implementing active management to bring about habitat objectives. This proposal seeks to engineer and construct wetland infrastructure such as dikes, water control structures, and fish barriers, and to implement management techniques such as prescribed burns, rough fish control and water level manipulation. The shallow lake and wetland projects identified in this proposal for enhancement were proposed and reviewed by DNR Area and Regional supervisors. Projects, as shown in the accompanying parcel list, include engineering feasibility and design work, replacement/renovation of wetland infrastructure to bring about habitat enhancement, and direct wetland management activities.

Parcels may be added, modified, or deleted from the proposal's parcel list to accommodate engineering feasibility results, provide resources to new opportunities, or to address the challenges associated with complex shallow lake and wetland projects.

To improve efficiency and meet mutual goals, projects may be done in cooperation with Ducks Unlimited.

### **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 Duck Recovery Plan
- Managing Minnesota's Shallow Lakes for Waterfowl and Wildlife

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

The first stated goal of the Long Range Duck Recovery Plan is to restore a breeding population of ducks averaging 1 million. The primary strategy for this goal is the restoration and protection of 2 million additional acres of habitat, of which 30% is wetland. The second goal of the Duck Plan is an increase in Minnesota's duck harvest. The primary strategy for this goal is the protection, enhancement, and management of 1800 shallow lakes in Minnesota. This OHF proposal directly contributes to these goals.

'Wetland' appears 233 times in the Minnesota Prairie Conservation Plan. Within Prairie Plan core areas, 83,169 acres of restored wetlands are needed. It also makes the assumption that high numbers of prairie wetlands will be actively managed. As noted by the MN Pollution Control Agency, only 1 in 5 prairie wetlands is in good condition. Restoration/enhancement of this proposal contribute to this plan.

### **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

#### **Forest / Prairie Transition:**

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

#### **Northern Forest:**

- Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas

#### **Metro / Urban:**

- Protect, enhance, and restore remnant native prairie, Big Woods forests, and oak savanna with an emphasis on areas with high biological diversity

#### **Southeast Forest:**

- Protect, enhance, and restore habitat for fish, game, and nongame wildlife in rivers, cold-water streams, and associated upland habitat

## **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:**

Three elements relate to this proposal's ability to produce a significant and permanent conservation legacy.

First, the scale of this proposal is significant, exceeding 10,000 acres. Projects of this size are able to produce results locally and statewide.

Second, the infrastructure (water control structures, dikes, fish barriers) projects proposed for construction or renovation will be worked on by DNR engineers who will design and oversee construction and renovation to achieve long-lasting results. A typical goal is to have constructed water control structures, dikes and fish barriers with a life expectancy of last a minimum of 30-40 years. These projects will be on public waters or publicly-owned or eased lands. Roving habitat crews have become a key component to maintaining quality on state lands.

Third, the type of work being done through this proposal, Shallow lake enhancement and wetland restoration, are key components of all significant conservation plans for Minnesota affecting Minnesota. The work is needed to restore wetlands, 90% of which have been lost in the prairies and many of the remaining ones are degraded. Key state conservation plans such as Minnesota's Prairie Conservation Plan, Duck Recovery Plan, and Shallow Lake Plan call for the active management of shallow lakes and the restoration/management of wetlands to Minnesota's landscape.

## **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:**

Shallow Lakes staff provide standardized, rigorous assessments of shallow lakes to determine management needs and document habitat management effectiveness. Shallow lakes research has proven the effectiveness of management practices being employed

The Minnesota Duck Recovery Plan goals include boosting the state's breeding duck population. The most productive prairie waterfowl habitat is a mix of wetland and grassland as a habitat complex. A complex could be 4 - 9 square miles and should be comprised of 10% temporary/seasonal wetlands, 10% permanent wetlands, and 40% grasslands, with the remaining 40% available for crops. In addition to mixes of grasslands and healthy wetlands, The Duck Plan also called for accelerated efforts to restore 1,800 shallow lakes, including wild rice lakes.

The Minnesota Prairie Conservation Plan, which is a plan for both uplands and wetlands in the prairie region of Minnesota, outlines focal areas (Core Areas and Habitat Complexes) where we can build on an existing base of conservation lands and improve the habitat there. The Prairie Wetland Initiative component of this OHF grant would contribute to these identified Core Areas and Habitat Complexes by working to actively manage and improve small wetlands on public lands, especially on those lands contributing to the Minnesota Comprehensive Prairie Plan. The Status and Trends of Wetlands in Minnesota: Depressional Wetland Quality Assessment (2007 - 2012), produced by the Minnesota Pollution Control Agency, noted that while most wetlands in northern Minnesota are in good condition, the opposite is true in the central and former prairie regions of the state, where degraded vegetation communities are predominant. Vegetation communities in more than half of these depressional wetlands are in poor condition (56%), with only 17% in good condition, similar to the quality of all wetland types in the central hardwood and former prairie regions. Non-native invasive plants are having the greatest impact.

The projects and initiatives called for in this OHF proposal will directly contribute to expanded and healthy wetland complexes and increased shallow lakes work. Work will renovate existing wetland infrastructure and establish new management, especially in the critical prairie region of Minnesota.

## **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:**

Roughly 50% of all federally endangered animal are wetland-related. As a measure of the importance of wetlands to Minnesota Species of Greatest Conservation Need (SGCN), the word 'wetland' appears 127 times in Minnesota's Wildlife Action Plan 2015-2025 (WAP). Conservation Focus Areas are priority areas for working with partners to identify, design, and implement conservation actions and report on the effectiveness toward achieving the goals and objectives defined in the Wildlife Action Plan. Target Habitat Complexes within Conservation Focus Areas commonly include Prairie Wetland Complexes and other wetland community types. Potential conservation actions (wetland specific):

The protection and management of wetlands and wetland/grassland complexes are listed extensively in the discussion of Conservation Focus Area Target, Conservation Issues and Approaches. Specific management actions mentioned include reed canary grass and invasive cattail control, "natural disturbance management" (i.e. water level management, prescribed fire, woody vegetation removal). Target Habitat Complexes within Conservation Focus Areas commonly include Prairie Wetland Complexes and other wetland community

types.

As noted in the WAP, wet meadows and fens typically provide optimal habitat for sedge wrens, yellow rails, Nelson's sharp-tailed sparrows and numerous other SGCN. Wetland Management Options to support SGCN include prevention of wetland degradation, restoration of wetland complexes, and management of invasives.

For shallow lakes, examples of SGCN include lesser scaup, northern pintail, common moorhen, least bitterns, American bitterns, marsh wrens, and Virginia rails. Shallow lake management actions to benefit SGCN include the restoration of large complexes of shallow lakes and wetlands, with attention to the habitat features required by SGCN, management for a natural water regime in shallow lakes, and management of invasives.

See a list of SGCN associated with wetlands included as an attachment to this proposal.

Management of wetlands and shallow lakes as noted above will be accomplished through the work described in this proposal.

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

Mallards are a commonly used indicator species for numerous waterfowl plans due to (1) extensive research that has occurred with this species on many aspects of its life history, habitat requirement and response to management, and (2) the fact that it is representative of the "typical" upland nesting duck. Both Joint Venture waterfowl plans that cover Minnesota – the Prairie Pothole Joint Venture and the Upper Mississippi River and Great Lakes Region Joint Venture (UMRG LRJV) – use the mallard as a focal species. The biological model used in the UMRG LRJV to estimate habitat needs to support mallard population growth uses a simple but accepted rate of 1 mallard pair per hectare (1 pair per 2.47 acres) of wetland habitat (noting that upland habitat for nesting is also obviously needed). Trumpeter swans could also be used as an indicator species relative to assessing wetland habitat work. Trumpeter swans are a recognizable feature on wetlands and their restoration is a modern wildlife management success story. Trumpeter swans are strictly territorial on their breeding areas with shoreline complexity and food availability being factors in defining the area being defended. Though reported territories can range in size from 1.5 - >100 hectares, a reasonable expectation is that one additional trumpeter swan pair would be supported by each 50 acres of wetlands protected, restored, or enhanced.

## Outcomes:

### Programs in the northern forest region:

- Improved availability and improved condition of habitats that have experienced substantial decline *Intensive wetland management and habitat infrastructure maintenance will provide the wetland base called for in numerous prairie, shallow lake and waterfowl plans. Area wildlife staff and/or shallow lakes staff will monitor completed projects to determine success of implementation and to assess the need for future management and/or maintenance.*

### Programs in forest-prairie transition region:

- Wetland and upland complexes will consist of native prairies, restored prairies, quality grasslands, and restored shallow lakes and wetlands *Intensive wetland management and habitat infrastructure maintenance will provide the wetland base called for in numerous prairie, shallow lake and waterfowl plans. Area wildlife staff and/or shallow lakes staff will monitor completed projects to determine success of implementation and to assess the need for future management and/or maintenance.*

### Programs in metropolitan urbanizing region:

- Protected habitats will hold wetlands and shallow lakes open to public recreation and hunting *Intensive wetland management and habitat infrastructure maintenance will provide the wetland base called for in numerous prairie, shallow lake and waterfowl plans. Area wildlife staff and/or shallow lakes staff will monitor completed projects to determine success of implementation and to assess the need for future management and/or maintenance.*

### Programs in southeast forest region:

- Large corridors and complexes of biologically diverse wildlife habitat typical of the unglaciated region are restored and protected *Intensive wetland management and habitat infrastructure maintenance will provide the wetland base called for in numerous prairie, shallow lake and waterfowl plans. Area wildlife staff and/or shallow lakes staff will monitor completed projects to determine success of implementation and to assess the need for future management and/or maintenance.*

### Programs in prairie region:

- Protected, restored, and enhanced shallow lakes and wetlands *Intensive wetland management and habitat infrastructure maintenance will provide the wetland base called for in numerous prairie, shallow lake and waterfowl plans. Area wildlife staff and/or shallow lakes staff will monitor completed projects to determine success of implementation and to assess the need for future management and/or maintenance.*

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

DNR engineers will design and oversee construction and renovation of infrastructure to achieve long-lasting results. A typical goal is to have water control structures, dikes and fish barriers last a minimum of 30-40 years. The management of completed infrastructure projects will fall on existing staff of the Department of Natural Resources. Periodic enhancements such as invasive species removal, supplemental vegetation planting, or water control structure installation, maintenance, or replacement, will be accomplished through annual funding requests to a variety of funding sources including, but not limited to, the Game and Fish Fund, bonding, gifts, the Environmental and Natural Resources Trust Fund, the Outdoor Heritage Fund, and federal sources such as North American Wetlands Conservation Act grants. Wetland enhancement projects such as cattail control, prescribed burns, rough fish management and the like are implemented to achieve quality, long-lasting habitat benefits lasting benefits, realistically they have variable lifespans due to conditions imposed by climate, physical factors, etc. Monitoring by area wildlife staff and shallow lakes specialists will ensure that followup management is employed as needed.

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

Year	Source of Funds	Step 1	Step 2	Step 3
10-12 months post-construction of infrastructure	DNR	Engineering staff warranty review		
1 year post-management action	DNR	Parcel review by areas wildlife staff, shallow lakes staff, or small wetland specialists.		

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

Wetlands exceed all other land types in terms of wildlife productivity. In the US, roughly 150 species of birds depend on wetlands. Beyond wildlife habitat, wetlands play a key role in providing clean water, along with values such as floodwater retention, groundwater recharge, and shoreline buffering. Counties in southern and western Minnesota have lost an average of 95% of their wetlands. A 2014 USFWS publication, between 1997 and 2009, Minnesota ranked highest among 5 Upper Midwest/Great Plains states for wetland loss. Habitat conversion and degradation continues. Numerous strategic plans such as the Minnesota Duck Recovery Plan, Minnesota Shallow Lakes Plan, the Minnesota Wildlife Action Plan, and the Minnesota Prairie Conservation Plan all document the need to implement aggressive and focused habitat management to lost and degraded habitat to restore wildlife.

## Does this program include leverage in funds:

No

## Relationship to other funds:

- Not Listed

## Describe the relationship of the funds:

Not Listed

## Per MS 97A.056, Subd. 24, Any state agency or organization requesting a direct appropriation from the OHF must inform the LSOHC at the time of the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose:

This request is an acceleration of the Minnesota DNR's Section of Wildlife wetland habitat work to a level not attainable but for the appropriation.

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

Not Listed

## Activity Details

**Requirements:**

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

Will restoration and enhancement work follow best management practices including MS 84.973 Pollinator Habitat Program - **Yes**

Is the restoration and enhancement activity on permanently protected land per 97A.056, subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 - **Yes (WMA, WPA, SNA, Permanently Protected Conservation Easements, Refuge Lands, Public Waters, State Forests)**

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**

**Accomplishment Timeline**

Activity	Approximate Date Completed
Engineering feasibility projects	June 2023
Construction projects	June 2024
Roving Habitat Crews	June 2025
Aerial Cattail Control	June 2024

# Budget Spreadsheet

**Total Amount of Request: \$3,951,000**

## Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$702,000	\$0		\$702,000
Contracts	\$1,725,000	\$0		\$1,725,000
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$0	\$0		\$0
Easement Stewardship	\$0	\$0		\$0
Travel	\$245,000	\$0		\$245,000
Professional Services	\$591,000	\$0		\$591,000
Direct Support Services	\$99,000	\$0		\$99,000
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$300,000	\$0		\$300,000
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$289,000	\$0		\$289,000
DNR IDP	\$0	\$0		\$0
<b>Total</b>	<b>\$3,951,000</b>	<b>\$0</b>		<b>\$3,951,000</b>

## Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Natural Resource Specialists	2.00	5.00	\$702,000	\$0		\$702,000
<b>Total</b>	<b>2.00</b>	<b>5.00</b>	<b>\$702,000</b>	<b>\$0</b>		<b>\$702,000</b>

## Capital Equipment

Item Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Pumps for Roving Habitat Crews	\$300,000	\$0		\$300,000
<b>Total</b>	<b>\$300,000</b>	<b>\$0</b>		<b>\$300,000</b>

Amount of Request: \$3,951,000

Amount of Leverage: \$0

Leverage as a percent of the Request: 0.00%

DSS + Personnel: \$801,000

As a % of the total request: 20.27%

Easement Stewardship: \$0

As a % of the Easement Acquisition: -%

### How did you determine which portions of the Direct Support Services of your shared support services is direct to this program:

DNR calculates direct support services costs that are directly related to and necessary for each request based on the type of work being done and which division it's being done by.

### What is included in the contracts line?

The entire amount shown in the Contract line of the budget will be used for R/E work.

### Does the amount in the travel line include equipment/vehicle rental? - Yes

### Explain the amount in the travel line outside of traditional travel costs of mileage, food, and lodging:

\$245,000 is shown in the Travel line of the budget. In addition to traditional travel costs of mileage, food, and lodging, this funding will be used to cover DNR fleet costs associated with equipment used by DNR staff funded through this appropriation. Such equipment could include ATV's, UTV's, MarshMasters, tractors, trailers, and other equipment needed for critical habitat management activities.

**Describe and explain leverage source and confirmation of funds:**

Ducks Stamp, federal grants, other state funding, and NGO partner dollars are spent extensively on shallow lake and wetland projects around the state. However, our ability to track these expenditures and directly tie them to specific OHF projects precludes us from listing specific leverage amounts.

**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:**

The project can be scaled, though reduced number of habitat acres will result. Reduced funding will result in a prioritization process to select projects that best meet LSOHC and DNR strategic plans, produce quality habitat results, and address emergency needs. Statewide experts, NGO partners, and regional experts would be consulted.



## Output Tables

**Table 1a. Acres by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	0	0
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	13,838	0	0	0	13,838
Total	13,838	0	0	0	13,838

**Table 2. Total Requested Funding by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$0	\$0
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	\$3,951,000	\$0	\$0	\$0	\$3,951,000
Total	\$3,951,000	\$0	\$0	\$0	\$3,951,000

**Table 3. Acres within each Ecological Section**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	0	0
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	2,631	2,046	250	6,417	2,494	13,838
Total	2,631	2,046	250	6,417	2,494	13,838

**Table 4. Total Requested Funding within each Ecological Section**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$0	\$0	\$0	\$0	\$0	\$0
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	\$820,600	\$128,200	\$134,400	\$2,219,600	\$648,200	\$3,951,000
Total	\$820,600	\$128,200	\$134,400	\$2,219,600	\$648,200	\$3,951,000

**Table 5. Average Cost per Acre by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0
Enhance	\$286	\$0	\$0	\$0

**Table 6. Average Cost per Acre by Ecological Section**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$0	\$0	\$0	\$0	\$0
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	\$312	\$63	\$538	\$346	\$260

*Automatic system calculation / not entered by managers*

**Target Lake/Stream/River Feet or Miles**

0

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:**

Projects were submitted by Minnesota DNR Area Wildlife Staff into a stateside project database and were subsequently reviewed by both Regional and Statewide staff for suitability. As with past Shallow Lake and Wetland Enhancement appropriations, the parcel list may be adjusted as needed to remove or adjust parcels that prove to be infeasible or not meet habitat requirements and/or parcels may be added if they are within the scope of the accomplishment plan and budget. A revised and accurate parcel list is required as part of the Final Report.

Note: Aerial Cattail Spraying shown on the parcel list is a statewide effort involving multiple parcels. Location information shown on the parcel list below is the location of the helicopter base. Actual work will be done statewide at multiple locations and will be reflected in the final report.

## Section 1 - Restore / Enhance Parcel List

**Anoka**

Name	TRDS	Acres	Est Cost	Existing Protection?
Pool 1 Water Control Replacement	03322W33	100	\$100,000	Yes

**Big Stone**

Name	TRDS	Acres	Est Cost	Existing Protection?
Correl/Jensen Wetland Restoration	12044W10	29	\$20,000	Yes
Wetland Killen MSU - added management	12044W14	160	\$548,000	Yes

**Carver**

Name	TRDS	Acres	Est Cost	Existing Protection?
Raguet Fen Management Woody Control	11623W36	31	\$94,000	Yes

**Chippewa**

Name	TRDS	Acres	Est Cost	Existing Protection?
Rosemoen Island Managed Wetland MSU	11942W34	30	\$375,000	Yes

**Crow Wing**

Name	TRDS	Acres	Est Cost	Existing Protection?
Aerial Cattail Spraying	04530W09	10,000	\$540,000	Yes

**Lac Qui Parle**

Name	TRDS	Acres	Est Cost	Existing Protection?
Marsh Lake Fish Pond Structure and Pumping	11943W10	13	\$30,000	Yes

**Polk**

Name	TRDS	Acres	Est Cost	Existing Protection?
Kroening WMA Basin Enhancement	14741W25	30	\$225,000	Yes

**Pope**

Name	TRDS	Acres	Est Cost	Existing Protection?
Glenwood Area Wild Rice plantings	12537W35	100	\$6,000	Yes

## Roseau

Name	TRDS	Acres	Est Cost	Existing Protection?
County Line shallow wetlands	16344W06	55	\$145,000	Yes
Pool 1 Sanctuary Enhancement	16342W01	46	\$17,000	Yes

## Stevens

Name	TRDS	Acres	Est Cost	Existing Protection?
Alberta WMA water control feasibility	12043W34	0	\$20,000	Yes

## St. Louis

Name	TRDS	Acres	Est Cost	Existing Protection?
Darwin Myers WMA Dike and Water Control Structure Reconstruction	06015W35	744	\$420,000	Yes

## Section 2 - Protect Parcel List

No parcels with an activity type protect.

## Section 2a - Protect Parcel with Bldgs

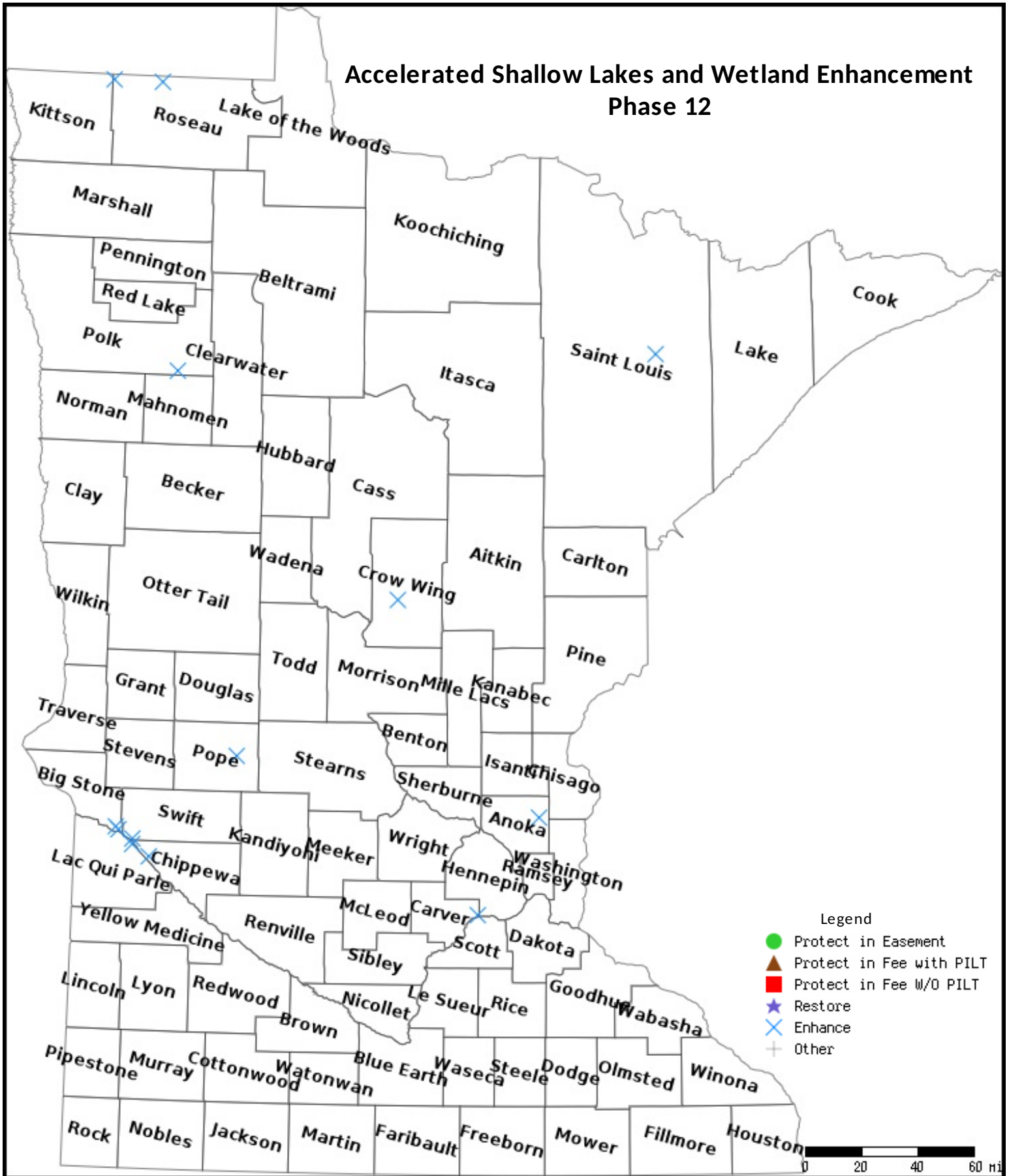
No parcels with an activity type protect and has buildings.

## Section 3 - Other Parcel Activity

No parcels with an other activity type.

# Parcel Map

## Accelerated Shallow Lakes and Wetland Enhancement Phase 12



Data Generated From Parcel List

# ML20 Shallow Lakes and Wetland Enhancement Phase 12 – Two Components, 14,000 wetland acres enhanced!

## 1. Region 3 Roving Habitat Crew – *Highly trained, equipped, and focused staff to manage public wildlife habitat.*

Requested funding is to continue the existing Region 3 Roving Habitat Crew's ability to accomplish wetland habitat enhancement work.



Before

Cattail  
burning



After

After a Roving Habitat Crew assisted with a controlled cattail burn at Waterbury WMA, a Wildlife Manager stated, "The burn at Waterbury provided lots of open water this spring. It's the first time I can remember shorebirds using it, and it had better than usual waterfowl use also."



High  
Capacity  
Pump in  
use at  
State Line  
Lake

Shallow Lake  
Drawdown

Drawdown  
at State  
Line Lake



A Wildlife Manager commented after a Roving Habitat Crew used a high capacity pump to facilitate the drawdown of State Line Lake – "[This] allowed DNR to drawdown a green, turbid lake with little aquatic vegetation. This resulted in more habitat and fish and wildlife."

2. Shallow Lakes / Wetland Projects – *addressing wetland habitat infrastructure and management needs around the state.*

OHF funding would restore wetlands, provide engineering feasibility and design work, improve wetland infrastructure, and enhance wetlands and shallow lakes through active management.



Examples of wetland enhancement projects

