



## Lessard-Sams Outdoor Heritage Council

Accelerated Shallow Lakes and Wetland Enhancement Phase 12

Laws of Minnesota 2020 Accomplishment Plan

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### General Information

**Date:** 08/15/2023

**Project Title:** Accelerated Shallow Lakes and Wetland Enhancement Phase 12

**Funds Recommended:** \$1,676,000

**Legislative Citation:** ML 2020, Ch. 104, Art. 1, Sec. 2, subd 4(d)

**Appropriation Language:** \$1,676,000 the second year is to the commissioner of natural resources to enhance and restore shallow lakes and wetland habitat statewide. A list of proposed land restorations and enhancements must be provided as part of the required accomplishment plan.

### Manager Information

**Manager's Name:** Ricky Lien

**Title:** Wetland Habitat Team Supervisor

**Organization:** Minnesota DNR

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**Office Number:**

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### Location Information

**County Location(s):** Polk, Crow Wing and Big Stone.

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

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

**Activity types:**

- Enhance

**Priority resources addressed by activity:**

- Wetlands

## Narrative

### **Abstract**

This proposal will accomplish shallow lake and wetland enhancement and restoration work throughout Minnesota, with a focus on the prairie region. Almost 4,200 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.

### **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. 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, inducing winterkill of fish, and controlling invasive plants and fish.

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. Aerial cattail spraying is included. Additionally, a capital equipment purchase of a Trimble Survey Unit will be made to staff to evaluate and survey potential projects.

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 Duck

**How does the plan 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.

**Describe how the plan 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.

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

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

**Which two other plans are addressed in this program?**

- Long Range Duck Recovery Plan
- Managing Minnesota's Shallow Lakes for Waterfowl and Wildlife

## Which LSOHC section priorities are addressed in this program?

### Forest / Prairie Transition

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

### Metro / Urban

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

### 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

### Prairie

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

### Southeast Forest

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

## Outcomes

### Programs in forest-prairie transition region:

- Wetland and upland complexes will consist of native prairies, restored prairies, quality grasslands, and restored shallow lakes and wetlands ~ *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 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 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.*

**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.*

**Does this program include leveraged funding?**

No

**Per MS 97A.056, Subd. 24, Please explain whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.**

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

**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.

**Actions 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.	-	-

## Activity Details

### Requirements

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

Yes

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

Yes

**Is the restoration and enhancement activity on permanently protected land per 97A.056, Subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 or on lands to be acquired in this program?**

Yes

**Where does the activity take place?**

- WMA
- WPA
- SNA
- Permanently Protected Conservation Easements
- County/Municipal
- Refuge Lands
- Public Waters
- State Forests

### Land Use

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

No

## Timeline

Activity Name	Estimated Completion Date
Engineering feasibility projects	June 2023
Construction projects	June 2024
Roving Habitat Crews	June 2023
Aerial Cattail Control	June 2023

**Date of Final Report Submission:** 11/01/2025

**Availability of Appropriation:** Subd. 7. Availability of Appropriation

Money appropriated in this section may not be spent on activities unless they are directly related to and necessary for a specific appropriation and are specified in the accomplishment plan approved by the Lessard-Sams Outdoor Heritage Council. Money appropriated in this section must not be spent on indirect costs or other institutional overhead charges that are not directly related to and necessary for a specific appropriation. Unless otherwise provided, the amounts in this section are available until June 30, 2023. For acquisition of real property, the amounts in this section are available until June 30, 2024, if a binding agreement with a landowner or purchase agreement is entered into by June 30, 2023, and closed no later than June 30, 2024. Funds for restoration or enhancement are available until June 30, 2025, or five years after acquisition, whichever is later, in order to complete initial restoration or enhancement work. If a project receives at least 15 percent of its funding from federal funds, the time of the appropriation may be extended to equal the availability of federal funding to a

maximum of six years if the federal funding was confirmed and included in the original approved draft accomplishment plan. Funds appropriated for fee title acquisition of land may be used to restore, enhance, and provide for public use of the land acquired with the appropriation. Public-use facilities must have a minimal impact on habitat in acquired lands.



**Budget**

Budget reallocations up to 10% do not require an amendment to the Accomplishment Plan.

**Totals**

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$216,000	-	-	\$216,000
Contracts	\$822,000	-	-	\$822,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$67,000	-	-	\$67,000
Professional Services	\$251,000	-	-	\$251,000
Direct Support Services	\$56,000	-	-	\$56,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	\$148,500	-	-	\$148,500
Other Equipment/Tools	\$11,500	-	-	\$11,500
Supplies/Materials	\$104,000	-	-	\$104,000
DNR IDP	-	-	-	-
<b>Grand Total</b>	<b>\$1,676,000</b>	-	-	<b>\$1,676,000</b>

**Personnel**

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
Natural Resource Specialists	2.0	3.0	\$216,000	-	-	\$216,000

**Capital Equipment**

Item	Funding Request	Leverage	Leverage Source	Total
Trimble Survey Unit	\$18,500	-	-	\$18,500
Survey equip./accessories	\$97,000	-	-	\$97,000
ATV and tracks	\$25,000	-	-	\$25,000
ATV trailer	\$8,000	-	-	\$8,000

**Amount of Request:** \$1,676,000

**Amount of Leverage:** -

**Leverage as a percent of the Request:** 0.0%

**DSS + Personnel:** \$272,000

**As a % of the total request:** 16.23%

**Easement Stewardship:** -

**As a % of the Easement Acquisition:** -

**How will this program accommodate the reduced appropriation recommendation from the original proposed requested amount?**

Two measures were employed to accommodate the reduced appropriation. First, the Roving Habitat Crew that will

be funded by this appropriation will be funded for three years instead of five. Second, the project list was reduced to include only four high priority projects.

## Contracts

### What is included in the contracts line?

The amount budgeted in the Contacts line of the budget includes funding needed to contract with private construction companies to build wetland habitat projects.

## Travel

### 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

\$157,000 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.

### I understand and agree that lodging, meals, and mileage must comply with the current MMB Commissioner Plan:

No

## Direct Support Services

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

Direct Support Services is determined by a standard DNR process taking into account the amount of funding and the number of allocations made with that funding.

## Federal Funds

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

No

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

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	0	0	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	4,190	0	0	0	4,190
<b>Total</b>	<b>4,190</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,190</b>

**Total Requested Funding by Resource Type (Table 2)**

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	\$1,676,000	-	-	-	\$1,676,000
<b>Total</b>	<b>\$1,676,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$1,676,000</b>

**Acres within each Ecological Section (Table 3)**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
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	975	500	150	2,040	525	4,190
<b>Total</b>	<b>975</b>	<b>500</b>	<b>150</b>	<b>2,040</b>	<b>525</b>	<b>4,190</b>

**Total Requested Funding within each Ecological Section (Table 4)**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	\$286,000	\$28,000	\$67,000	\$1,208,000	\$87,000	\$1,676,000
<b>Total</b>	<b>\$286,000</b>	<b>\$28,000</b>	<b>\$67,000</b>	<b>\$1,208,000</b>	<b>\$87,000</b>	<b>\$1,676,000</b>

**Average Cost per Acre by Resource Type (Table 5)**

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	\$400	-	-	-

**Average Cost per Acre by Ecological Section (Table 6)**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-

Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	\$293	\$56	\$446	\$592	\$165

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

## Parcels

*For restoration and enhancement programs ONLY: Managers may add, delete, and substitute projects on this parcel list based upon need, readiness, cost, opportunity, and/or urgency so long as the substitute parcel/project forwards the constitutional objectives of this program in the Project Scope table of this accomplishment plan. The final accomplishment plan report will include the final parcel list.*

### Parcel Information

#### Sign-up Criteria?

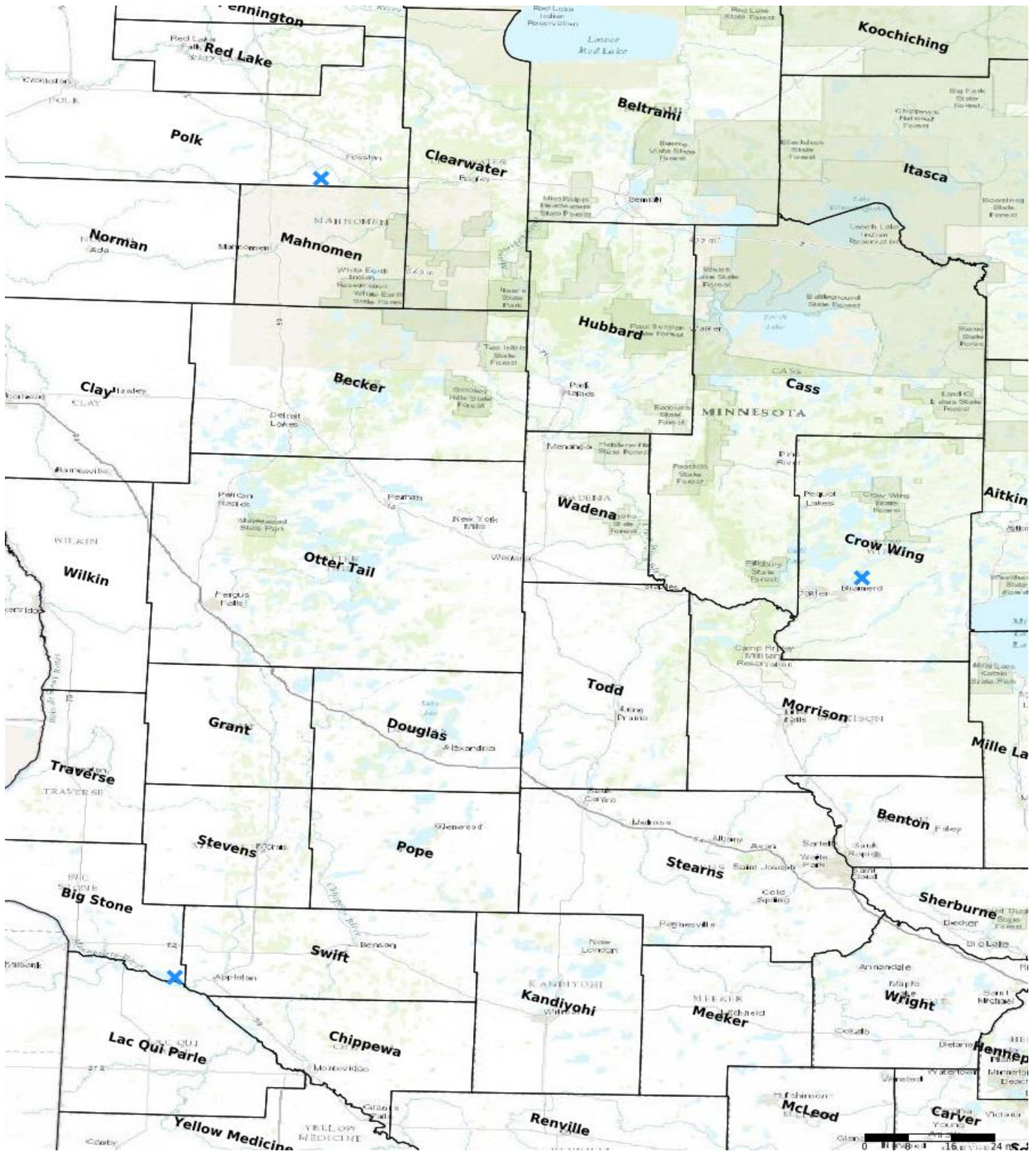
No

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

### Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Wetland Killen Moist Soil Unit	Big Stone	12044W14	160	\$572,000	Yes
Aerial Cattail Spraying	Crow Wing	04530W09	25,000	\$135,000	Yes
Kroening WMA Basin Enhancement	Polk	14741W25	30	\$235,000	Yes

# Parcel Map



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