



Lessard-Sams Outdoor Heritage Council

Living Shallow Lake Enhancement & Wetland Restoration Initiative - Phase VI
Laws of Minnesota 2018 Accomplishment Plan

General Information

Date: 01/13/2023

Project Title: Living Shallow Lake Enhancement & Wetland Restoration Initiative - Phase VI

Funds Recommended: \$3,740,000

Legislative Citation: ML 2018, Ch. 208, Art. 1, Sec. 2, subd 4(f)

Appropriation Language: \$3,740,000 the second year is to the commissioner of natural resources for an agreement with Ducks Unlimited to restore and enhance shallow lakes and wetlands on public lands and wetlands under permanent conservation easement for wildlife management. A list of proposed shallow lake enhancements and wetland restorations must be provided as part of the required accomplishment plan.

Manager Information

Manager's Name: John Lindstrom

Title: Regional Biologist

Organization: Ducks Unlimited

Address: c/o USFWS Litchfield WMD 22274 615 Avenue

City: Litchfield, MN 55355

Email: jlindstrom@ducks.org

Office Number: 320-693-2849

Mobile Number: 320-212-8018

Fax Number:

Website: www.ducks.org

Location Information

County Location(s): Douglas, Otter Tail, Murray, Jackson, Kandiyohi, Meeker, Redwood, Lac qui Parle, Le Sueur, Swift, Martin, Becker, Cottonwood, Nobles, Pope, Sibley, Big Stone, Nicollet, Grant, Freeborn, Steele, McLeod, Renville, Watonwan and Lyon.

Eco regions in which work will take place:

- Prairie

Activity types:

- Restore

- Enhance

Priority resources addressed by activity:

- Wetlands

Narrative

Abstract

This Phase 6 request for Ducks Unlimited's Living Lakes program will enhance 1,000 acres of shallow lakes and restore 50 acres of small wetlands by engineering and installing water control structures for Minnesota DNR and U.S. Fish & Wildlife Service on public lands and wetlands under easement. Structures will be used by DNR and Service partners to restore wetland hydrology and actively manage shallow lake water levels to enhance their ecology for ducks, other birds, and hunters in the Prairie Region of Minnesota. DU will engineer structures and contract with private sector firms for construction and earth-moving work.

Design and Scope of Work

This is Phase 6 of Ducks Unlimited's ongoing shallow lake enhancement and prairie wetland restoration conservation program, and will enhance 1,000 acres of shallow lakes and restore 50 acres of small wetlands in the Prairie Pothole Region of SW Minnesota. DU provides wetland engineering services to the Minnesota DNR and U.S. Fish & Wildlife Service (FWS) to survey, design, and install water level control structures to enhance degraded shallow lakes and restore drained wetlands on public land and under easement. Water control structures will be used to conduct temporary water level draw-downs to rejuvenate shallow lake ecology and productivity. DU engineers will survey and design water control structures, and will manage their construction by private sector firms contracted by DU.

Shallow lake enhancement and wetland restoration are top priority actions in all major conservation plans for Minnesota. Our work addresses the habitat goals identified in North American Waterfowl Management Plan, Minnesota's Prairie Conservation Plan, and Minnesota's Duck Recovery Plan which calls for the active management of 1,800 shallow lakes and adding 64,000 wetlands to Minnesota's landscape. This work is time-sensitive because complex shallow lake enhancement projects take several years to design and implement, and because wetlands restorations are critically needed for breeding waterfowl.

Healthy and abundant wetlands are required to sustain breeding and migrating waterfowl. Minnesota has lost approximately 90% of our prairie wetlands along with 99% of native prairie uplands around them. This has had a profound negative impact on breeding ducks and other prairie wetland wildlife here. Shallow lakes and wetlands that remain are often those that were too deep to drain years ago, and they now function as the core of Minnesota's remaining waterfowl habitat complexes. Unfortunately, these remaining wetland basins now often receive the excessive nutrient-laden water runoff from an intensively drained and interconnected landscape through which invasive fish such as carp have improved access. As a result, many of our remaining wetlands and shallow lakes are turbid and degraded due to highly drained watersheds, high and stable water levels in which nutrients collect and carp and other invasive fish proliferate. The result is that aquatic ecology functions stagnate and wetland productivity declines, and wetland basins with few aquatic plants and invertebrates result. This is especially detrimental to diving ducks and other species that rely exclusively on aquatic plant and invertebrate foods within

wetlands and shallow lakes to survive. These factors have caused a decline in Minnesota's diverse waterfowl resources, and in Minnesota's rich waterfowling tradition too.

This funding request will support DU projects that biologists and wetland engineering staff assess shallow lake and wetland restoration project feasibility, and design and manage construction of water control structures and fish barriers required to improve public water shallow lakes and restore wetlands in the Prairie Pothole Region of SW Minnesota. Funding will support ongoing shallow lake technical assistance from DU biologists and engineers to assess, survey, and design future projects for implementation under future OHF appropriations for this program.

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?

This proposal enhances shallow lakes and restores non-forested prairie wetlands, which are identified as critical habitats for many "Species of Greatest Conservation Need" listed in Minnesota's "Tomorrow's Habitat for the Wild & Rare: An Action Plan for Minnesota Wildlife." Specific species listed in the Action Plan as requiring shallow lakes (page 273) include lesser scaup, northern pintail, common moorhen, least bittern, American bittern, marsh wren, and Virginia rail, along with being "important for many other species". Specific species listed in the Action Plan as requiring emergent marshes (page 267) include least bittern, American bittern, marsh wren, and Virginia rail, and Forster's terns are listed as requiring large deep-water marshes.

In addition to these specific wildlife species listed as SGCN examples in the Action Plan, shallow lakes and prairie wetlands will provide habitat of significant value for other species listed in Appendix B of the Action Plan too. Enhanced shallow lakes will provide habitat of significant value for other SGCN including: western grebe, black tern, northern harrier, trumpeter swan, common loon, bald eagle, Franklin's gull, whimbrel, black-crowned night heron, American white pelican, horned grebe, red-necked grebe, eared grebe, and common tern. Restored prairie wetlands will provide habitat of significant value for other SGCN including: include black tern, northern harrier, trumpeter swan, rusty blackbird and black-crowned night heron.

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:

Ducks Unlimited uses science-based targeting to evaluate shallow lake and prairie wetland restorations in the Prairie Region, especially small wetland restorations that help improve prairie-wetland complexes for breeding ducks. Models such as the U.S. Fish & Wildlife Service (USFWS) "Thunderstorm Maps" and "Restorable Wetlands Inventory" help determine landscape importance for breeding waterfowl. We consider biological diversity and significance according to the Minnesota DNR County Biological Survey (MCBS). Several project examples follow:

Indian Lake is a 377-acre shallow lake in Sibley County partially included in a state WMA. It was identified by Minnesota DNR as having a high level of biological significance, and as having moderate biodiversity significance by the MCBS.

Lake Hassel is a 703-acre shallow lake in Swift County in a landscape that currently supports 31-40 breeding duck pairs per square mile. It has a high level of biological significance and a moderate level of biodiversity significance, and is within 1.5 miles of three different native plant communities identified by the MCBS (Wet Prairie, Seepage Meadow, Dry Hill Prairie).

Boon Lake is an 858-acre shallow lake in Renville County, identified as having moderate biological significance, and is located just south of a large cluster of shallow lakes with moderate and high levels of biological significance.

Julsrud WPA in Otter Tail County has been identified as being an outstanding site for biodiversity and occurs within a large complex of fee-title and permanently protected lands under easement that are highly diverse.

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?

Prairie

- Protect, restore, and enhance shallow lakes

Does this program include leveraged funding?

-

Non-OHF Appropriations

Year	Source	Amount
2009	DU private and federal USFWS and NAWCA grant funds	\$1,111,000
2010	DU private and federal USFWS and NAWCA grant funds	\$1,205,400
2012	DU private and federal USFWS and NAWCA grant funds	\$839,300
2014	DU private and federal USFWS and NAWCA grant funds	-
2017	DU private and federal USFWS and NAWCA grant funds	-

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

Shallow lake enhancement water control structures and prairie wetland restorations are engineered and implemented for state and federal agency conservation partners on land under their state or federal long-term control and management responsibility. Thus, all projects constructed will be sustained and maintained by conservation partners Minnesota DNR and U.S. Fish & Wildlife Service, which are the two primary wildlife habitat management agencies in Minnesota.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2020	DNR Game & Fish Account, OHF for DNR Shallow Lakes Program and DNR Roving Crews	DNR Area Wildlife and Shallow Lakes Program Staff will assess shallow lake and wetland conditions following initial water level draw-downs, and document for management consideration	Every 3-8 years, depending on wetland conditions, water control structures will be used to actively manage and enhance shallow lakes and wetlands via temporary water level draw-down to remove fish, stimulate aquatic plants, and rejuvenate their overall aquatic ecology, which includes stimulating aquatic invertebrate production. Some basins may need pumping via DNR pump purchased by DU via previous 2012 OHF grant.	DNR assess ecological conditions again following subsequent temporary water level draw-downs and refilling management treatments, and communicate results and questions or concerns to DU.

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
- Permanently Protected Conservation Easements
- Public Waters

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
Recon projects with DNR and FWS partners and begin engineering survey and design of wetland restorations and shallow lake enhancements	June 2019
Complete small wetland restorations	June 2021
Complete larger shallow lake enhancement water control structure installations	June 2022

Date of Final Report Submission: 08/31/2023**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, 2021. For acquisition of real property, the amounts in this section are available until June 30, 2022, if a binding agreement with a landowner or purchase agreement is entered into by June 30, 2021, and closed no later than June 30, 2022. Funds for restoration or enhancement are available until June 30, 2023, 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 that federal funding was confirmed and included in the second 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	Antic. Leverage	Leverage Source	Total
Personnel	\$700,000	\$20,000	DU private and future federal NAWCA	\$720,000
Contracts	\$2,740,000	\$100,000	DU private and future federal NAWCA	\$2,840,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$60,000	\$10,000	DU private and future federal NAWCA	\$70,000
Professional Services	\$120,000	-	-	\$120,000
Direct Support Services	\$55,000	-	-	\$55,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$50,000	\$5,000	DU private and future federal NAWCA	\$55,000
Supplies/Materials	\$15,000	\$5,000	DU private and future federal NAWCA	\$20,000
DNR IDP	-	-	-	-
Grand Total	\$3,740,000	\$140,000	-	\$3,880,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Antic. Leverage	Leverage Source	Total
Manager - grant administration and program coordination	1.0	3.0	\$90,000	-	-	\$90,000
Professional engineers, surveyors, construction managers, and biologist to plan, design, and implement projects	6.0	3.0	\$610,000	\$20,000	DU private and future federal NAWCA	\$630,000

Capital Equipment

Item	Funding Request	Antic. Leverage	Leverage Source	Total
Portable diesel pump on trailer, fuel tank, and pipes/hoses for USFWS	-	-	-	-

Amount of Request: \$3,740,000

Amount of Leverage: \$140,000

Leverage as a percent of the Request: 3.74%

DSS + Personnel: \$755,000

As a % of the total request: 20.19%

Easement Stewardship: -

As a % of the Easement Acquisition: -

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

This program budget was reduced to 54% of the funding request according to proportion of the funding request recommended, with minor reallocation among budget categories.

Describe and explain leverage source and confirmation of funds:

DU private funds and future federal NAWCA grants will be requested to help extend the use of state OHF grant funds, where and when possible. Federal NAWCA grants are highly competitive and subject to federal budget appropriations, and the amounts pledged as leverage are conservative estimates.

Contracts

What is included in the contracts line?

Yes, all of the budget request for Contracts is for shallow lake enhancement and wetland restoration work contracted to private sector construction firms specializing in earth moving and water control structure installation involving steel weirs, concrete culverts, etc.

Travel

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

-

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

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?

Minnesota DNR grants staff previously reviewed and approved DU accounting methodology for Direct Support Services, which are calculated and included in DU staff costs. DU Direct Support Services constitute approximately 10% of DU overall staff costs on average among all billable DU conservation staff categories. DU breaks out and invoices for Direct Support Service expenses approved by DNR for reimbursement separately from Personnel expenses.

Federal Funds

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

Yes

Are the funds confirmed?

No

What is the approximate date you anticipate receiving confirmation of the federal funds?

July 2020

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

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	50	0	0	0	50
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	1,000	0	0	0	1,000
Total	1,050	0	0	0	1,050

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	\$240,000	-	-	-	\$240,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	\$3,500,000	-	-	-	\$3,500,000
Total	\$3,740,000	-	-	-	\$3,740,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	0	0	50	0	50
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0
Enhance	0	0	0	1,000	0	1,000
Total	0	0	0	1,050	0	1,050

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	\$240,000	-	\$240,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	\$3,500,000	-	\$3,500,000
Total	-	-	-	\$3,740,000	-	\$3,740,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	\$4,800	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	\$3,500	-	-	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	\$4,800	-
Protect in Fee with State PILT Liability	-	-	-	-	-

Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	\$3,500	-

Target Lake/Stream/River Feet or Miles

Outcomes

Programs in prairie region:

- Enhanced shallow lake productivity ~ *Shallow lakes enhanced via temporary water level draw-downs made possible by DU-engineered and installed water control structures will be assessed by Minnesota DNR shallow lakes program surveys both before and after draw-downs to document improvements in water clarity, abundance of aquatic plants, and overall improvements in the aquatic ecology of each basin. Minnesota DNR and U.S. Fish & Wildlife Service field staff also conduct periodic counts of waterfowl and other wildlife using these basins in both spring and fall, along with hunters, and thus wildlife and human use is also monitored on a more informal basis.*

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

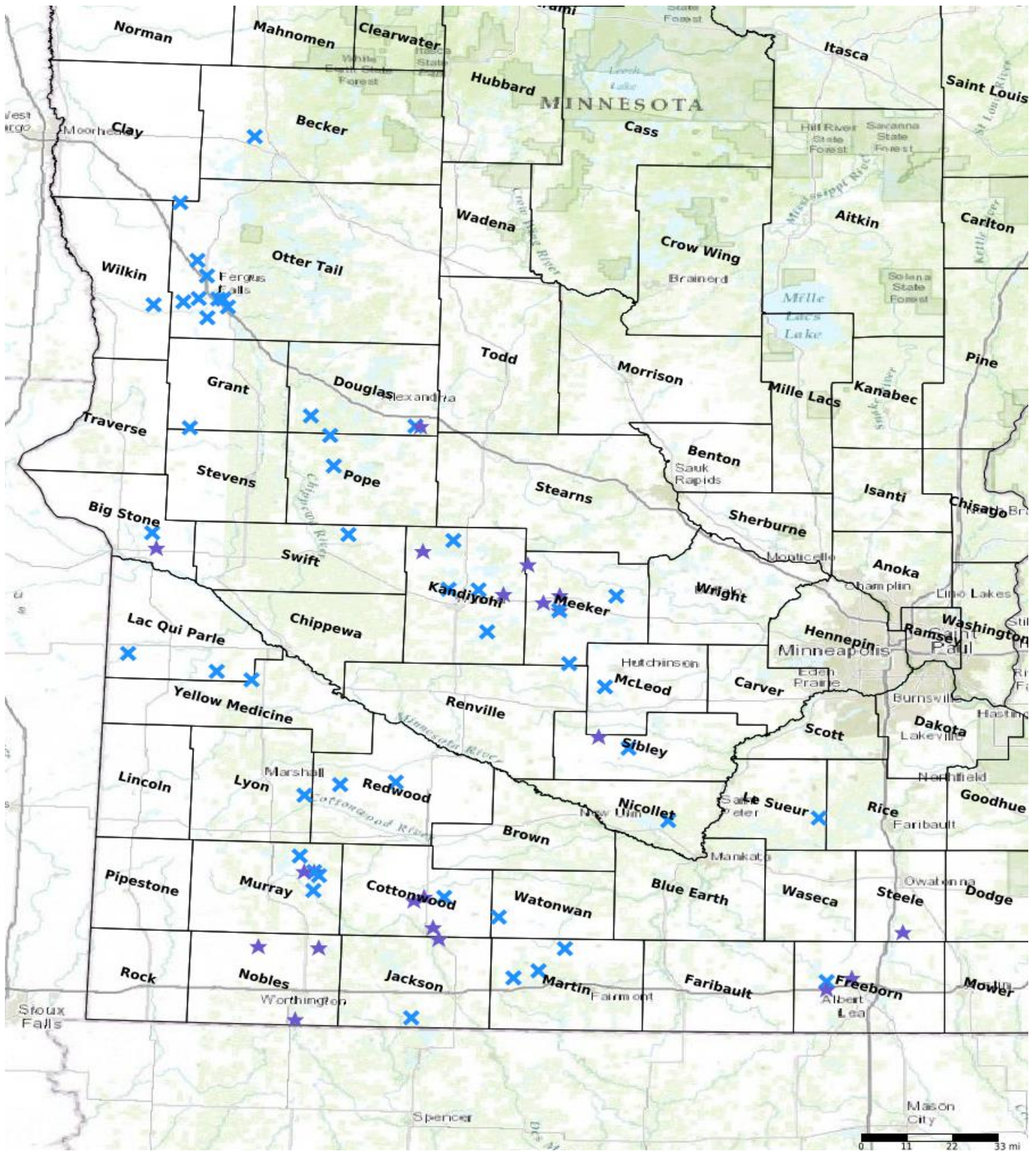
Explain the process used to identify, prioritize, and select the parcels on your list:

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Hamden Slough NWR	Becker	13942202	210	\$400,000	Yes
Shelstad WPA - Shelstad Tract	Big Stone	12145211	51	\$250,000	Yes
Otrey Lake WMA	Big Stone	12245222	116	\$175,000	Yes
Cottonwood Lake WPA	Cottonwood	10535219	7	\$35,000	Yes
Watowan River WPA	Cottonwood	10636211	9	\$45,000	Yes
Bartsch Lake	Cottonwood	10635209	66	\$300,000	Yes
Harder Lake WPA	Cottonwood	10636216	1	\$5,000	Yes
Eng WPA	Douglas	12740211	25	\$150,000	Yes
Orange WPA - Enhancement	Douglas	12736220	10	\$30,000	Yes
Orange WPA	Douglas	12736221	105	\$300,000	Yes
Halls Lake WPA	Freeborn	10322230	105	\$150,000	Yes
Illinois, Chicago, and Eastern WPA	Freeborn	10222206	29	\$145,000	Yes
Two Island WPA	Freeborn	10322224	4	\$20,000	Yes
Cheney Trust WPA	Grant	12744235	94	\$200,000	Yes
Sangl WMA Wetland Enhancement	Jackson	10136221	25	\$150,000	Yes
Fish Lake WPA	Jackson	10435205	11	\$55,000	Yes
USFWS Easement - Block Wetland Enhancement	Kandiyohi	12034228	14	\$150,000	Yes
USFWS Easement - Carlson Wetland Restoration	Kandiyohi	12136203	20	\$150,000	Yes
Yarmon WPA	Kandiyohi	11834223	268	\$400,000	Yes
Timber Lake	Kandiyohi	12235222	202	\$250,000	Yes
Uncle Matts Lake WPA	Kandiyohi	12033232	10	\$100,000	Yes
Weber WPA	Kandiyohi	12035228	79	\$300,000	Yes
Sweetwater WMA	Lac qui Parle	11746236	69	\$200,000	Yes
Wild Wings WMA	Lac qui Parle	11643223	73	\$250,000	Yes
Flinks Slough WMA	Lac qui Parle	11642236	227	\$200,000	Yes
Diamond Lake	Le Sueur	11023222	120	\$250,000	Yes
SE Clifton WMA	Lyon	11140235	88	\$300,000	Yes
Caron WMA	Martin	10333226	37	\$150,000	Yes
Clam Lake	Martin	10332215	72	\$200,000	Yes
Gleam WMA	Martin	10431216	15	\$200,000	Yes
Raslyn WMA - Mud/Barber Lakes	McLeod	11630234	586	\$500,000	Yes
Butler Lake FWS PL Easement	Meeker	11932210	60	\$150,000	Yes
Doering FWS PL Easement	Meeker	11931219	10	\$50,000	Yes
USFWS Easement - Soine Wetland Restoration	Meeker	12132219	10	\$100,000	Yes
USFWS Easement - Trebil	Meeker	12031231	40	\$200,000	Yes

Powers Lake	Meeker	12030236	0	\$380,000	Yes
Thoen and Harold Lakes	Meeker	11931219	522	\$500,000	Yes
Shetek WMA - Robbins Slough	Murray	10840222	245	\$3,000	Yes
Devils Run WPA	Murray	10639206	28	\$200,000	Yes
Buffalo Lake WPA	Murray	10739207	4	\$20,000	Yes
Slaughter Slough WPA	Murray	10740211	18	\$90,000	Yes
Dovray WPA	Murray	10739217	3	\$15,000	Yes
Buffalo Lake WMA - Wetland Restoration	Murray	10739207	10	\$50,000	Yes
Swan Lake WMA - Middle Lake	Nicollet	11028226	2,665	\$400,000	Yes
Graham Lake WPA	Nobles	10439220	14	\$70,000	Yes
Lake Bella WPA	Nobles	10140227	1	\$5,000	Yes
Bloom WPA	Nobles	10441220	4	\$20,000	Yes
Mavis WPA	Otter Tail	13243211	1	\$10,000	Yes
Wieggers WPA	Otter Tail	13343208	20	\$55,000	Yes
Aaberg WPA	Otter Tail	13244212	1	\$15,000	Yes
Ridgeway WPA	Otter Tail	13244216	15	\$50,000	Yes
Busko WPA	Otter Tail	13143205	221	\$250,000	Yes
Hi-View WMA	Otter Tail	13243224	55	\$300,000	Yes
Knollwood WPA	Otter Tail	13245221	3	\$20,000	Yes
Townsend WPA	Otter Tail	13243210	2	\$20,000	Yes
Julsrud WPA	Otter Tail	13644205	15	\$50,000	Yes
Scribner WPA	Otter Tail	13444224	2	\$25,000	Yes
Ben Wade WPA	Pope	12639204	10	\$100,000	Yes
Stewart WPA	Pope	12539215	15	\$50,000	Yes
Daubs Lake	Redwood	11137211	175	\$200,000	Yes
Westline WMA	Redwood	11139213	200	\$200,000	Yes
Boon Lake	Renville	11731233	858	\$500,000	Yes
Ward Lake WMA	Sibley	11330204	10	\$75,000	Yes
Indian Lake	Sibley	11329221	229	\$250,000	Yes
Straight River Marsh WPA	Steele	10520222	50	\$300,000	Yes
Loen WPA	Swift	12238218	35	\$100,000	Yes
Sulem WMA	Watonswan	10533205	226	\$400,000	Yes

Parcel Map



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