



Lessard-Sams Outdoor Heritage Council

Accelerated Shallow Lakes and Wetland Enhancements Phase 17

ML 2025 Request for Funding

General Information

Date: 06/04/2024

Proposal Title: Accelerated Shallow Lakes and Wetland Enhancements Phase 17

Funds Requested: \$10,326,000

Confirmed Leverage Funds: -

Is this proposal Scalable?: Yes

Manager Information

Manager's Name: Ricky Lien

Title: Wetland Habitat Team Supervisor

Organization: Minnesota DNR

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Location Information

County Location(s): Waseca, Watonwan, Cottonwood, Redwood, Murray, Rice, Lincoln, Swift, Steele, Nobles, Aitkin, Mille Lacs, Pine and Todd.

Eco regions in which work will take place:

- Northern Forest
- Prairie
- Forest / Prairie Transition

Activity types:

- Enhance
- Restore
- Other :

Priority resources addressed by activity:

- Wetlands

Narrative**Abstract**

This proposal will establish shallow lake and wetland enhancement and restoration work on over 15,000 acres. This programmatic proposal has two components - (1) Twenty projects to construct infrastructure such as water control structures, dikes, and a fish barrier leading to enhanced or restored habitat, plus aerial spraying of hybrid cattails, engineering, and activities to enhance wild rice habitat; (2) Continued funding the Wetland Management Program, including staff. This work supports the goals of Minnesota habitat and species plans, but specifically supports the Minnesota Long-Range Duck Recovery Plan, Minnesota Duck Action Plan, and Minnesota's Shallow Lakes Plan for Waterfowl.

Design and Scope of Work

In addition to being critical for waterfowl, wetlands and shallow lakes provide 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 and more than 50% of our statewide wetlands. Wetlands that remain are often compromised by degraded quality. This programmatic proposal will accomplish wetland habitat work throughout Minnesota via two components - (1) Projects and (2) Wetland Management Program.

1. CONSTRUCTION/ENGINEERING/MANAGEMENT PROJECTS - Projects identified on the parcel list were proposed and reviewed by DNR Area and Regional supervisors and Wetland Habitat Team staff. Planned work includes constructing wetland infrastructure to bring about habitat enhancement or wetland restorations and direct wetland management activities. Engineering and construction of 12 infrastructure projects will install or renovate water control structures, dikes, and a fish barrier leading to enhanced wetland habitat. Four restoration projects are planned. One project will involve survey and design work to prepare for future construction. Herbicide treatments will continue on at least 10,000 acres monotypic hybrid cattails. Additionally, funds will be used to enhance wild rice through seeding at Swamp Lake in Aitkin County, wetland brush management at Chengwatana State Forest in Pine County, and at other sites through outlet clearance and beaver control to benefit and reestablish wild rice.

2. WETLAND MANAGEMENT PROGRAM - The Wetland Management Program (WMP) was created to assess and initiate management to restore/enhance wetland complexes. The WMP addresses management needed for smaller wetlands on Wildlife Management Areas and has been a huge success. The 2020 Minnesota Duck Action Plan noted the need to expand the WMP, which was done using a previous OHF appropriation. This proposal will continue funding for two Wetland Management Specialist and the program supervisor and allow for continued wetland assessment and habitat restoration and enhancement work in the prairies of Minnesota. Wetland enhancement work includes water level manipulation, control of invasive fish and plants, and will be focused on wetland complexes. Funding is requested through this proposal for to-be-determined wetland complex restoration and enhancement work that will be identified by WMP during this appropriation. It is conservatively estimated that each Natural Resource Specialist working in the WMP impacts 1,000 acres of small wetlands over the life of an appropriation. Creation of the WMP was instrumental in being able to take advantage of \$10 million Climate Resiliency funding from the Minnesota legislature, \$0.9 million from federal Inflation Reduction Act funding, and wetland enhancement/restoration funds made available by partner NGOs.

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

Parcels may be added, modified, or deleted from the 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. All changes shall be in keeping with the scope of the project and will be fully reported in the Final Report.

Explain how the proposal addresses habitat protection, restoration, and/or enhancement for fish, game & wildlife, including threatened or endangered species conservation

Approximately 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.

The protection and management of wetlands and wetland/grassland complexes are noted 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 lake habitat, examples of SGCN include lesser scaup, northern pintail, common moorhen, least bitterns, American bitterns, marsh wrens, and Virginia rails. Wetland 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.

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

What are the elements of this proposal that are critical from a timing perspective?

The Status and Trends of Wetlands in Minnesota: Depressional Wetland Quality Assessment (2007 – 2012), produced by the Minnesota Pollution Control Agency, noted that the prairie and central regions of the state wetlands are dominated by degraded vegetation communities. 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. In other words, not only have most wetlands been lost in much of the prairie and forest-transition areas of Minnesota, what remains are degraded and need management action to produce quality habitat. Work as described in this proposal will provide needed habitat, while also provide the other benefits found in healthy wetlands - water quality, floodwater storage, places to hunt and recreate, and carbon sequestration.

Describe how the proposal expands habitat corridors or complexes and/or addresses habitat fragmentation:

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 proposal 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. More specifically, the work done by the Wetland Management Program is targeted to identify key wetland complexes in the prairie region and bring management actions to the wetlands of those complexes.

Which top 2 Conservation Plans referenced in MS97A.056, subd. 3a are most applicable to this project?

- Long Range Duck Recovery Plan
- Minnesota's Wildlife Action Plan 2015-2025

Explain how this proposal will uniquely address habitat resilience to climate change and its anticipated effects on game, fish & wildlife species utilizing the protected or restored/enhanced habitat this proposal targets.

Highlighting just how important wetlands are to adaptation and climate action, the Global Center on Climate Adaptation noted, "Wetlands capture CO₂ from the atmosphere, making them nature's own solution to the climate emergency. In fact, they store more carbon than any other ecosystem on Earth, and peatlands alone store twice as much as all the world's forests. According to Ramsar's Scientific and Technical Review Panel, wetlands cover only nine percent of the planet's surface, but store up to 35 percent of terrestrial carbon." Additionally, wetlands and shallow lakes provide the ability to hold precipitation and run-off that occur from major storm events that occur more frequently due to climate change.

Which LSOHC section priorities are addressed in this proposal?

Forest / Prairie Transition

- Protect, enhance, and restore wild rice wetlands, shallow lakes, wetland/grassland complexes, aspen parklands, and shoreland that provide critical habitat for game and nongame wildlife

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

Describe how this project/program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife, and if not permanent outcomes, why it is important to undertake at this time:

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

First, the scale of this proposal is significant - 13,956 wetland acres. Projects of this size are able to produce results locally and statewide.

Second, the infrastructure (water control structures, dikes, a fish barrier) projects proposed for construction or renovation will be worked on by qualified 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.

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, Long Range Duck Recovery Plan, Minnesota Duck Action Plan, and Managing Minnesota Shallow Lakes for Waterfowl and Wildlife Plan call for the active management of shallow lakes and the restoration/management of wetlands to Minnesota's landscape.

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 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.*

What other dedicated funds may collaborate with or contribute to this proposal?

- N/A

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?

Qualified 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 and Pittman-Robertson funds. Wetland enhancement projects such as cattail control, prescribed burns, invasive fish management and the like are implemented to achieve quality, long-lasting habitat benefits, but the benefit lifespan may be variable due to conditions imposed by climate, physical factors, etc. Monitoring by area wildlife staff and shallow lakes specialists will ensure that follow-up management is employed as needed.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
10-12 months post-completion of engineered infrastructure	DNR	Qualified engineers conduct warranty inspection of project.	-	-
1 year post-implementation of management action	DNR	Wetland Management Program and Area Wildlife staff evaluate management effectiveness.	-	-

Provide an assessment of how your program may celebrate cultural diversity or reach diverse communities in Minnesota, including reaching low- and moderate-income households:

The DNR Acceleration Shallow Lakes and Wetlands Enhancements Phase 16 has the following specific ties to BIPOC and diverse communities:

- Wild rice seeding has tribal support to re-establish culturally valuable wild rice. A potential partnership regarding this effort is being discussed.

DNR’s OHF projects aim to serve all Minnesotans. At the same time, we are bringing more focus in all our work to BIPOC and diverse communities. The Minnesota DNR has adopted advancing diversity, equity and inclusion (DEI) as a key priority in its 2020-22 strategic plan. The plan focuses on increasing the cultural competence of our staff, creating a workforce that is reflective of Minnesota, continuing to strengthen tribal consultation and building partnerships with diverse communities.

The OHF funds high quality habitat projects that provide ecosystem services like clean water and carbon sequestration that support environmental justice. OHF also supports public access and recreational opportunities on these lands. OHF projects and outcomes benefit BIPOC and diverse communities through recreational opportunities that are close-to-home, culturally responsive and accessible to Minnesotans with disabilities.

The DNR has diversity, equity and inclusion strategies that benefit all OHF projects:

- Multilingual and culturally specific hunting and fishing education programs take place on public lands.
- All hiring is equal opportunity, affirmative action, and veteran-friendly. Contracting seeks out Targeted Group, Economically Disadvantaged and Veteran-Owned businesses.
- Public engagement seeks out BIPOC voices and involves diverse communities. Outreach and marketing of projects has this focus as well.
- Partnerships are at the center of all projects. Tribes in particular are consulted in all pertinent areas of the DNR’s work, under EO 19-24.

Activity Details

Requirements

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?

- Public Waters
- WPA
- County/Municipal
- State Forests
- WMA
- Other : National Forest
- Permanently Protected Conservation Easements
- Refuge Lands

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program, either by the proposer or the end owner of the property, outside of the initial restoration of the land?

No

Will insecticides or fungicides (including neonicotinoid and fungicide treated seed) be used within any activities of this proposal either in the process of restoration or use as food plots?

No

Other OHF Appropriation Awards

Have you received OHF dollars through LSOHC in the past?

Yes

Are any of these past appropriations still OPEN?

Yes

Approp Year	Funding Amount Received	Amount Spent to Date	Funding Remaining	% Spent to Date
2023	\$3,695,000	\$196,225	\$3,498,775	5.31%
2022	\$2,301,000	\$597,813	\$1,703,187	25.98%
2021	\$2,589,000	\$1,080,946	\$1,508,054	41.75%
2020	\$1,676,000	\$792,354	\$883,646	47.28%
2019	\$845,000	\$253,251	\$591,749	29.97%
2019	\$3,541,000	\$2,720,959	\$820,041	76.84%
Totals	\$14,647,000	\$5,641,548	\$9,005,452	38.52%

Timeline

Activity Name	Estimated Completion Date
Survey and engineer only projects	2030
Construction of infrastructure projects	2030
Wetland Management Program actions	2030
aerial spraying of cattails / wild rice seeding	2030

Budget

Totals

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	\$1,762,000	-	-	\$1,762,000
Contracts	\$5,930,000	-	-	\$5,930,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$200,000	-	-	\$200,000
Professional Services	\$1,692,000	-	-	\$1,692,000
Direct Support Services	\$242,000	-	-	\$242,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	\$125,000	-	-	\$125,000
Other Equipment/Tools	\$30,000	-	-	\$30,000
Supplies/Materials	\$345,000	-	-	\$345,000
DNR IDP	-	-	-	-
Grand Total	\$10,326,000	-	-	\$10,326,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
Program Supervisor	1.0	5.0	\$682,000	-	-	\$682,000
Wetland Specialists (NR Specialist-WL)	2.0	5.0	\$1,080,000	-	-	\$1,080,000

Capital Equipment

Item	Funding Request	Total Leverage	Leverage Source	Total
UTV and trailer x 2	\$70,000	-	-	\$70,000
Trimble survey unit	\$55,000	-	-	\$55,000

Amount of Request: \$10,326,000

Amount of Leverage: -

Leverage as a percent of the Request: 0.0%

DSS + Personnel: \$2,004,000

As a % of the total request: 19.41%

Easement Stewardship: -

As a % of the Easement Acquisition: -

Does this proposal have the ability to be scalable?

Yes

If the project received 50% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?

Funding at 50% would be adequate for 3 years of the Wetland Management Program (\$1.53 million), with the remaining funds being available for projects. This is approximately 46% of what is needed for the project list and the acres would be reduced commensurately.

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

Reduction of the proposal by 50% would be addressed by reducing Wetland Management Program from 5 years to 3 years.. The amount needed for salary for WMP staff would go from \$1.762 million down to \$1.022 million. DSS would also be reduced based on a Department formula.

If the project received 30% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?

Three years is the minimum needed for the Wetland Management Program (\$1.53 million). Taking this amount from a 30% funding level would leave approx. \$1.5 million for projects. This is approximately 20% of what is needed for the proposal project list and the acres would be reduced commensurately.

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

Reduction of the proposal to 30% would be addressed by reducing Wetland Management Program from 5 years to 3 years. The amount needed for salary for WMP staff would go from \$1.762 million down to \$1.022 million. DSS would also be reduced based on a Department formula.

Personnel

Has funding for these positions been requested in the past?

Yes

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

This proposal seeks funding for two Wetland Management Specialists and a program supervisor. These staff are currently funded with a previously acquired OHF appropriation. The requested funding will allow them to continue their important wetland habitat work uninterrupted by a lapse in funding.

Contracts

What is included in the contracts line?

Contract funding will be used to obtain needed construction, engineering, and/or management actions to construct shallow lake and wetland infrastructure projects or to implement wetland management activities.

Professional Services

What is included in the Professional Services line?

- Design/Engineering
- Other : The majority of the Professional Services costs associated with this proposal is associated with needed engineering that results from doing wetland infrastructure work and includes typical surveys and design activities. Also included in this proposal are two other activities that the DNR views as professional services. (1) Helicopter and pilot costs associated with aerial spraying of invasive cattails and (2) State Historical Preservation Office (SHPO) permits.
- Surveys

Travel

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

No

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

\$200,000 is shown in the Travel line of the budget and will be used traditional travel costs of mileage, food, and lodging. The total cost is determined by an estimated travel expense of \$40,000 per annually. This cost is verified by past expenditures.

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

Yes

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.

Other Equipment/Tools

Give examples of the types of Equipment and Tools that will be purchased?

Equipment and tools would be typical tools used by someone working in wetland environments to develop projects and could include waders, canoe, flagging, personal protective equipment (PPE), etc.

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?

Past OHF work has been used for match in federal grants (such as NAWCA, Pittman-Robertson) and it's probable the same opportunity will present itself, but the amounts are unavailable to report at this time. The Wetland Management Program which was established using previous OHF

appropriation and for which further funds are requested in this proposal was instrumental in the Department being able to spend a \$10 million Climate Resiliency appropriation from the state legislature and almost \$1 million in federal Inflation Reduction Act funds.

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	122	0	0	0	122
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	15,273	0	0	0	15,273
Total	15,395	0	0	0	15,395

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	\$1,237,000	-	-	-	\$1,237,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	\$9,089,000	-	-	-	\$9,089,000
Total	\$10,326,000	-	-	-	\$10,326,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	0	0	122	0	122
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	5,600	0	8,121	1,552	15,273
Total	0	5,600	0	8,243	1,552	15,395

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	\$1,237,000	-	\$1,237,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	\$1,257,500	-	\$6,240,200	\$1,591,300	\$9,089,000
Total	-	\$1,257,500	-	\$7,477,200	\$1,591,300	\$10,326,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	\$10,139	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	\$595	-	-	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	\$10,139	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	\$224	-	\$768	\$1,025

Target Lake/Stream/River Feet or Miles

Parcels

Sign-up Criteria?

[Yes - Sign up criteria is attached](#)

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

Proposals for individual projects are submitted by DNR Area Wildlife Staff and Wetland Habitat Team members. Projects are reviewed at the regional and central office and appropriate projects are selected for inclusion in this OHF proposal. The parcel list may be modified by the program manager as needed and the Final Report must reflect an accurate and complete parcel list.

In addition to the projects shown on the parcel list, additional projects will be selected for aerial cattail spraying using the attached "Guidelines Aerial Cattail Spraying.docx." The Final Report will accurately show all parcels.

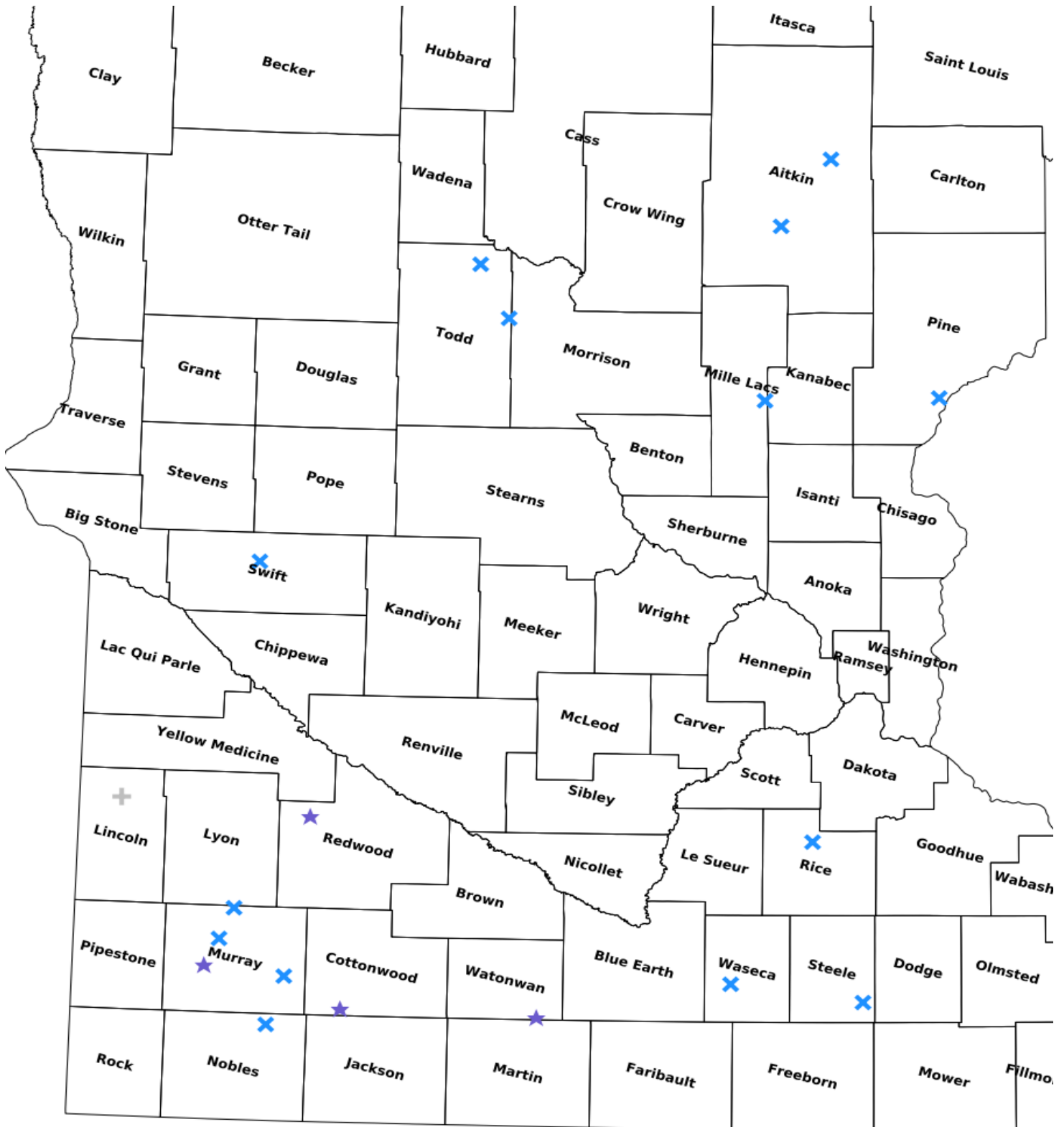
Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection	Description
Grayling Marsh WMA	Aitkin	04823210	500	\$470,000	Yes	Replace a 32-year old water control structure
Swamp Lake Wild Rice	Aitkin	04625226	291	\$151,000	Yes	Wild rice seeding
Pats Pasture WMA Wetland Restoration	Cottonwood	10537229	33	\$180,000	Yes	Restore wetlands
Mille Lacs WCS (Rum River State Forest)	Mille Lacs	03926213	500	\$525,000	Yes	Replace 3 aging WCS
Long Lake WCS	Murray	10841204	188	\$190,000	Yes	Replace WCS
Irruption WMA WCS	Murray	10639220	41	\$500,000	Yes	Replace WCS
Lowville WMA WCS	Murray	10742212	50	\$310,000	Yes	Replace WCS
Peters WMA Wetland Restorations, Phase II	Murray	10642209	59	\$700,000	Yes	Restore wetlands
Lonetree WMA WCS Replacement	Nobles	10440215	46	\$150,000	Yes	Replace aging WCS
Chengwatana SF Wetland Brush Removal	Pine	03919207	400	\$97,000	Yes	Brush removal to improve waterfowl habitat and wild rice
Phyllis Voosen WMA Wetland Restorations, Phase II	Redwood	11238219	20	\$288,000	Yes	Restore wetlands
Paulson Marsh	Rice	11121211	55	\$190,000	Yes	Replace WCS/dike
Rickert Lake WCS Phase II	Steele	10519210	41	\$190,000	Yes	Install WCS
Danvers WMA WCS	Swift	12140205	700	\$437,000	Yes	Replace aging WCS
Staples Dike	Todd	13333225	600	\$828,000	Yes	Rehabilitate entire dike system
Ruff-Nik Paycer Pool	Todd	13132225	26	\$211,000	Yes	Inadequate water control structure must be replaced
Silver Lake Fish Barrier	Waseca	10624224	0	\$305,000	Yes	Install fish barrier
Perch Creek WMA Wetland Restoration	Watsonwan	10530231	10	\$40,000	Yes	Restore wetlands

Other Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Bossuyt WCS engineering	Lincoln	11245204	0	\$40,000	Yes

Parcel Map



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

Proposal Outline:

- Shallow lake and wetland enhancements and restorations in the Prairie, Forest/Prairie Transition, and Northern Forest ecoregions.
 - Enhancement and restoration of at least 15,000 acres
 - 14 wetland and shallow lake infrastructure projects
 - 4 wetland restorations
 - Helicopter spraying of monotypic cattail stands
 - Wild rice management
- Programmatic support for the Wetland Management Program
 - Funding for 2 Wetland Habitat Specialists and one Program Supervisor for 5 years
 - Project funding for wetland complex restoration and enhancement on WMAs

Previous Program Accomplishments:

Appropriation	Proposed acres	Actual acres
ML13 Accelerated Wetland and Shallow Lake Enhancement, Phase 5	15,355	13,811
ML14 Accelerated Wetland and Shallow Lake Enhancement, Phase 6	6,788	19,365
ML15 Accelerated Wetland and Shallow Lake Enhancement, Phase 7	8,756	28,101
ML16 Accelerated Wetland and Shallow Lake Enhancement, Phase 8	9,415	22,142
ML17 Accelerated Wetland and Shallow Lake Enhancement, Phase 9	5,135	5,024
ML18 Accelerated Wetland and Shallow Lake Enhancement, Phase 10	25,224	4,695
AVERAGE	11,779	15,523

Highlighted Project:

Utilizing a specially equipped DNR helicopter and Roving Habitat Crews for ground support, monotypic stands of hybrid cattails are treated to return them to productive waterfowl habitat.



Wetland Management Program work to restore and enhance wetland complexes:

DNR Accelerated Shallow Lake and Wetland Enhancements - Phase 17



Figure 1 Topography survey are done to identify potential wetland restorations and enhancements and provide data for construction planning.

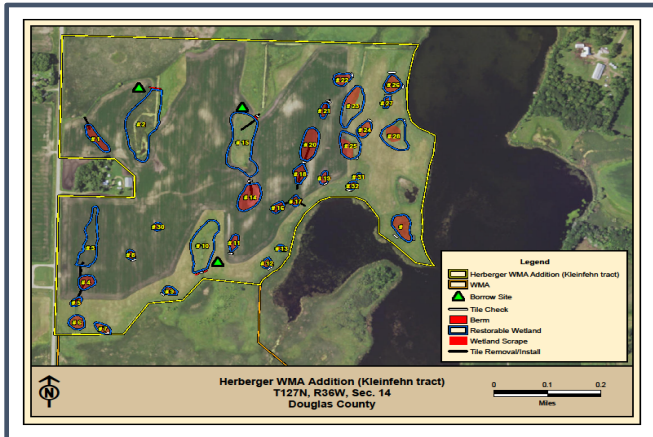


Figure 2 Planning and Design. Wetland Consultant and Specialists prepare for construction.



Figure 3. Construction is completed to restore or enhance wetlands on Wildlife Management Areas in the prairie regions of Minnesota.



Figure 4. Before and after images of a restored wetland on a WMA.

Wetland Management Program – To-Be-Determined Projects

Funding amount - Total of \$850,000, which includes \$800,000 for contracted work for wetland complex restoration/enhancement and \$50,000 for Professional Services

Description of work - Wetland Management Program (WMP) Specialists are constantly reviewing Wildlife Management Areas to assess existing or drained wetlands for needed enhancement or restoration work. Work is prioritized for wetland complexes to maximize habitat benefits and achieve work efficiencies. Typical restoration work involves breaking drainage tiles, plugging ditches, sediment removal, and infrastructure such as dikes and water control structures. Enhancement work includes vegetation control, especially dealing with monotypic stands of hybrid cattails, manipulating water levels, and removal of detrimental fish. WMP staff are able to quickly implement needed habitat work on Wildlife Management Areas if funding is available.

The requested funding would be prioritized to projects that implement habitat work in wetland complexes, with an estimated impact to 1,000 acres during the appropriation timeframe.