



## Lessard-Sams Outdoor Heritage Council

Living Shallow Lakes and Wetlands Enhancement & Restoration Initiative  
ML 2027 Request for Funding

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### General Information

**Date:** 06/22/2026

**Proposal Title:** Living Shallow Lakes and Wetlands Enhancement & Restoration Initiative

**Funds Requested:** \$11,776,000

**Confirmed Leverage Funds:** \$600,000

**Is this proposal Scalable?:** Yes

### Manager Information

**Manager's Name:** John Lindstrom

**Title:** Manager of Conservation Programs - Minnesota

**Organization:** Ducks Unlimited

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### Location Information

**County Location(s):** Lac qui Parle, Kandiyohi, Jackson, Grant, Douglas, Cottonwood, Clay, Brown, Big Stone, Becker, Otter Tail, Stearns, Swift, Hennepin, Sherburne, Martin, Meeker, Stevens, Pope, Lincoln, Faribault, Blue Earth, Murray, Redwood, Renville, Lyon, Nobles, Todd, Sibley, Freeborn, Nicollet, Watonwan, Rice, Yellow Medicine, Le Sueur, Traverse, Wright, Polk, Scott, Carver, Washington, Mahnomen, Chippewa and Marshall.

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

Forest / Prairie Transition

Prairie

Metro / Urban

Northern Forest

**Activity types:**

Restore

Enhance

**Priority resources addressed by activity:**

Wetlands

Prairie

**Narrative****Abstract**

This request for Ducks Unlimited's Living Lakes program will enhance or restore 2,500 acres of wetlands and adjacent prairie grasslands for the U.S. Fish & Wildlife Service, Minnesota DNR, and other public land partners and private lands under permanent easement. DU biologists and engineers will design wetland restorations to restore natural hydrology and water control structures for active management of shallow lakes and larger wetlands to enhance their ecology for wildlife and people across Minnesota. While DU staff will design restoration and enhancement projects, DU will hire private contractors to conduct restoration and enhancement work.

**Design and Scope of Work**

This Phase 13 of Ducks Unlimited's ongoing shallow lake enhancement and wetland restoration conservation program will enhance or restore at least 2,500 acres of shallow lakes, wetlands, and prairie grasslands, primarily in the Prairie Pothole Region of Minnesota. DU biologists work with U.S. Fish & Wildlife Service and Minnesota DNR field staff to restore and enhance wetlands on public land and under easement and DU engineers design water level control structures to enhance degraded shallow lakes and wetlands for DNR and other partners. Water control structures are used for temporary water level draw-downs to rejuvenate shallow lake ecology and productivity for wildlife. Small wetland enhancement and restoration work is completed using natural infrastructure and by removing sediment, tile, and trees from wetlands. Adjacent grasslands may be enhanced with tree removal to benefit upland nesting waterfowl. Restoration work is done by private sector firms hired 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 restoring 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 wetland 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 and 99% of native prairie grasslands. This has had a profound negative impact on breeding ducks and other prairie wetland wildlife here. Our remaining shallow lakes and wetlands are often those that were too deep to drain years ago and now function as the core of Minnesota's remaining waterfowl habitat complexes. Unfortunately, these remaining wetland basins now 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 drainage they receive and high, stabilized water levels in which nutrients collect and invasive fish proliferate. This results in stagnated aquatic wetland ecology and productivity and wetland basins with few aquatic plants and

invertebrates for birds to eat. This is especially detrimental to diving ducks and other wetland-dependent species that rely exclusively on aquatic plant and invertebrate foods within wetlands and shallow lakes. These factors have caused a significant decline in both Minnesota's once diverse waterfowl population and rich waterfowling traditions.

This funding request will support DU staff biologists and engineers who survey, design, and manage construction of shallow lake and wetland enhancement and restoration projects to improve public water shallow lakes and restore wetlands and grasslands. Funding will also support ongoing wetland technical assistance to assess, survey, and design future enhancement and wetland projects for implementation under future OHF appropriations for this program.

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

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: black tern, northern harrier, trumpeter swan, rusty blackbird and black-crowned night heron.

Frequently, our small wetland restoration and enhancement work is prioritized based on the USFWS "Thunderstorm Map" that estimates the density of breeding waterfowl across the prairie part of the state. During spring migration, waterfowl frequently return to areas near where they hatched looking to nest themselves. We target those areas that are already most attractive to breeding waterfowl, and maximize the attractiveness of small wetland basins on existing WPAs and WMAs, including removing invasive trees. This helps improve these existing complexes for wetland dependent wildlife and only makes them more attractive to waterfowl looking to nest, and improve their chance to successfully nest. These wetlands are also used by waterfowl migrating through the area in the fall too.

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

Most prairie wetlands have already been drained and most shallow lakes degraded in southern Minnesota. Functioning wetland basins are the most important habitat variable for breeding ducks and the most limiting factor for ducks in the prairie region of Minnesota. Similarly, healthy and productive shallow lakes are the limiting habitat type for diving ducks and most other migrating waterfowl species as they pass through Minnesota in fall and spring. To improve wetland conditions for both breeding and migrating waterfowl in Minnesota, it is imperative that we restore wetlands and enhance shallow lakes, especially in the Prairie Pothole Region of SW Minnesota. Some of these larger shallow lake and wetland projects can take over a decade to come together. Given

the importance of both small ponds and larger lakes and wetlands to waterfowl throughout their annual cycle, it is crucial that this work continue to be delivered effectively in high-priority areas.

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

Ducks Unlimited uses science-based targeting to evaluate shallow lake and prairie wetland restorations, 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). Where possible, we like to work in large complexes of high habitat value. Several examples include:

Lake Katrina is a 485-acre shallow lake in Hennepin County and is identified as having high biodiversity significance according to MCBS. Baker Park Reserve surrounds Lake Katrina and also has sites of high biodiversity significance. Ducks Unlimited is working on a new water-control structure here that will enhance the habitat quality of the lake for wetland dependent wildlife by allowing temporary water level drawdowns.

Several federal Waterfowl Production Areas (WPA) in west-central Minnesota are located in landscapes with outstanding biodiversity significance in large complexes of fee-title and protected private lands under permanent easement and term conservation options like CRP too. Key parts of these landscapes currently support 40-60 breeding duck pairs per square mile, with the potential to support over 100 breeding duck pairs per square mile once wetlands are restored or enhanced. Small wetland work, including tree removal, in these landscapes can improve the attractiveness of these areas to wetland dependent wildlife and upland nesting birds, such as many species of waterfowl.

Ducks Unlimited is currently working on several different wetland enhancement projects at Big Stone National Wildlife Refuge in Lac qui Parle County. The refuge is home to several sites of outstanding, high, and moderate levels of biodiversity significance. The landscape is currently able to support 10-25 breeding duck pairs per square mile. These enhanced wetlands and shallow lakes will provide additional habitat for birds throughout their annual cycle.

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

Long Range Duck Recovery Plan

North American Waterfowl Management Plan

**Which LSOHC section priorities are addressed in this proposal?**

**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 habitat corridors, with emphasis on the Minnesota, Mississippi, and St. Croix rivers (bluff to floodplain)

**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, and restore migratory habitat for waterfowl and related species, so as to increase migratory and breeding success

**Describe how this project/program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife:**

Ducks Unlimited professional engineers and biologists design and install robust steel and concrete water level control structures that provide long-lasting shallow lake enhancement and wetland restoration tools to Minnesota DNR, U.S. Fish & Wildlife Service, and other partner's field managers. These water control structures are essential to enhancing shallow lakes and controlling outflows, and must be engineered to a very high level in order to withstand time and environmental pressures while providing wildlife managers with the means to regularly conduct temporary water level draw-downs to enhance their aquatic ecology to ensure optimal ecological condition for ducks. Similarly, smaller wetland restorations often involve complex drainage systems that require professional engineering to survey, design, and restore without negatively affecting upstream and downstream private landowners. Since 1984, Ducks Unlimited has provided professional wetland engineering services to our state and federal wildlife conservation agency partners.

**If this project/program does not have permanent outcomes, describe why it is important to undertake at this time:**

### 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 ~ *This program will restore and enhance wetlands and grasslands on federal Waterfowl Production Areas and USFWS Habitat easements, and similar wetlands for MNDNR, each of which will be selected strategically by USFWS and MNDNR to benefit existing wetland complexes and migratory birds for both breeding and migration habitat, and which will be monitored by USFWS and MNDNR.*

**Programs in metropolitan urbanizing region:**

Game lakes are significant contributors of waterfowl, due to efforts to protect uplands adjacent to game lakes ~ *DU will enhance and restore shallow lakes and wetlands on the Three Rivers Park District, Sherburne NWR, and Minnesota Valley NWR and federal Waterfowl Production Areas perpetually protected, managed, monitored, and evaluated annually by highly-trained U.S. Fish & Wildlife Service wildlife biologists. Park and service staff will guide the enhancement and restoration work by DU, and will evaluate wetland habitat outcomes annually to guide future management actions.*

**Programs in the northern forest region:**

Other ~ *Wetland and shallow lakes restored or enhanced by DU will be assessed by Minnesota DNR or USFWS 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 informative opportunistic basis.*

**Programs in prairie region:**

Protected, restored, and enhanced shallow lakes and wetlands ~ *Wetland and shallow lakes restored or enhanced by DU will be assessed by Minnesota DNR or USFWS 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 informative opportunistic basis.*

**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 funding requested, if approved, will supplement traditional funding for Ducks Unlimited's Living Lakes Initiative, and will not supplant or substitute for traditional funding previously used for this purpose by Ducks Unlimited.

**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 implemented for agency conservation partners on land under their state, federal, or municipal long-term control and management responsibility. Thus, all projects constructed will be sustained and maintained by conservation partners like the Minnesota DNR and U.S. Fish & Wildlife Service, which are the two primary wildlife habitat management agencies in Minnesota. Upland areas that are enhanced or restored under this program will be managed with intermittent fire to maintain the benefits of our work.

**Actions to Maintain Project Outcomes**

Year	Source of Funds	Step 1	Step 2	Step 3
2033	DNR Game & Fish Account, OHF for DNR Shallow Lakes and Small Wetlands Program and DNR Roving Crews	DNR Area Wildlife and Program Staff will assess shallow lake and wetland conditions following initial water level draw-downs or restoration, 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.

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

Ducks Unlimited conserves wetlands for waterfowl and people alike. Our habitat projects restore natural infrastructure, which helps to alleviate society’s climate impacts and provide clean water for diverse communities, who are disproportionately impacted by the effects of wetland loss and climate change.

Wetlands recharge groundwater in aquifers that provide clean, dependable water supplies while removing pollutants and reducing downstream flooding. Community resiliency is enhanced by the function of wetlands and adjacent grassland habitats that clean water and help absorb impacts from severe weather events. Public waters also provide opportunities for fishing, hunting, canoeing, kayaking, birding, and outdoor education for diverse and low to moderate income communities that may not otherwise have access to natural open spaces. Frequently our work occurs in outstate Minnesota where there are more moderate and low income households, providing access to natural areas where they might not otherwise have access. Indigenous communities may benefit from DU wetland enhancements and restorations that create suitable conditions for wild rice to proliferate. Wetlands deliver a return on investment that supports the health, resiliency, and well-being of diverse communities.

Restoring wetlands in the Mississippi River watershed benefits the diverse communities who draw their water from the river such as Minneapolis, St. Paul, and St. Cloud. Minneapolis alone draws 21 billion gallons of water a year from the Mississippi River to produce 57 million gallons of drinking water each day.

DU works with Three Rivers Park District and U.S. Fish & Wildlife Service's Minnesota Valley and Sherburne National Wildlife Refuges to enhance shallow lakes and other wetlands near diverse communities. The Refuges and Park District both connect the vibrant cultures of the Twin Cities metro with the diversity of wildlife and habitat in the metro area. They enhance urban habitat while offering community programs, environmental education, and access to nature on the edge of the city as well as hunting, fishing and hiking in wilder areas across the metro.

**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?**

WMA

WPA

Permanently Protected Conservation Easements

Public Waters

Refuge Lands

County/Municipal

AMA

### 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

### Previous OHF Appropriations

**Have you received OHF dollars through LSOHC for this program or project in the past?**

Yes

**Are there any of these past appropriations still OPEN?**

Yes

**If needed, please include any explanation of unspent funds.**

This request is for continued partnership in our successful wetland and shallow lake enhancement and restoration program. Over the past 3 years, DU has grown its wetland programs in Minnesota which has allowed us to efficiently spend out appropriations in a timely manner. We are on track to invoice over \$5 million of OHF on wetland projects funded by this program this fiscal year. That is an accurate approximation for how much we plan to spend annually. Final Reports were submitted for ML21 (Phase 7) and ML22 (phase 8) prior to submission of this proposal and we expect to wrap up 1+ appropriation a year moving forward. We have a reduced ask this year because we have a backlog of pending project deliveries that have been delayed due to federal North American Wetland Conservation Act (NAWCA) funding slowdowns. Our model is to leverage our OHF funding with federal NAWCA dollars on all large projects, and we have over a dozen projects tied to these delays, which will be several million in OHF contracts once agreements with USFWS are completed and projects are bid out. This federal funding has already been authorized. Instead of delivering these delayed projects, we shifted to starting work and spending staff time on new projects, opportunities, and partnerships.

**Open OHF Appropriations - Data from Most Recent Status Update**

<b>Project</b>	<b>Funding Amount Received</b>	<b>Amount Spent to Date</b>	<b>Funding Remaining</b>	<b>% Spent to Date</b>
ML 2026 - Living Shallow Lakes and Wetlands Enhancement & Restoration Initiative	\$6,571,000	-	\$6,571,000	0.0%
ML 2025 - Living Shallow Lakes & Wetlands Enhancement & Restoration Initiative - Phase XI	\$5,601,000	\$152,800	\$5,448,200	2.73%
ML 2024 - Living Shallow Lakes and Wetlands Enhancement & Restoration Initiative - Phase X	\$7,867,000	\$2,969,800	\$4,897,200	37.75%
ML 2023 - Living Shallow Lakes & Wetlands Enhancement & Restoration Initiative - Phase IX	\$6,634,000	\$2,935,000	\$3,699,000	44.24%
<b>Totals</b>	<b>\$26,673,000</b>	<b>\$6,057,600</b>	<b>\$20,615,400</b>	<b>22.71%</b>

**Timeline**

<b>Activity Name</b>	<b>Estimated Completion Date</b>
Recon projects with DNR, FWS, and other partners and begin engineering survey and design of wetland restorations and shallow lake enhancements	June 2027
Complete some small wetland restorations and some larger shallow lake enhancements	June 2028
Complete remaining small wetland projects and larger shallow lake enhancement water control structure installations	June 2032

**Budget**

**Totals**

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	\$2,200,000	\$470,000	DU Private, federal NAWCA, and USFWS IRA	\$2,670,000
Contracts	\$9,000,000	\$500,000	DU Private & federal NAWCA grants	\$9,500,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	\$500,000	Federal USFWS Migratory Bird Con. Fund	\$500,000
Easement Stewardship	-	-	-	-
Travel	\$100,000	\$10,000	DU Private & federal NAWCA grants	\$110,000
Professional Services	\$50,000	-	-	\$50,000
Direct Support Services	\$176,000	-	-	\$176,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	\$40,000	-	-	\$40,000
Other Equipment/Tools	\$10,000	-	-	\$10,000
Supplies/Materials	\$200,000	\$20,000	DU Private & federal NAWCA grants	\$220,000
DNR IDP	-	-	-	-
<b>Grand Total</b>	<b>\$11,776,000</b>	<b>\$1,500,000</b>	-	<b>\$13,276,000</b>

**Personnel**

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
Professional Engineers, Surveyors, Construction Managers, and Biologists to Design and Implement Projects	8.0	3.0	\$2,050,000	\$470,000	DU Private, federal NAWCA, and USFWS IRA	\$2,520,000
Manager - Grant Administration & Program Coordination	0.5	3.0	\$150,000	-	-	\$150,000

**Capital Equipment**

Item	Funding Request	Total Leverage	Leverage Source	Total
Tracked ATVs and/or UTVs for survey and construction management	\$40,000	-	-	\$40,000

**Amount of Request:** \$11,776,000  
**Amount of Leverage:** \$1,500,000  
**Leverage as a percent of the Request:** 12.74%  
**DSS + Personnel:** \$2,376,000  
**As a % of the total request:** 20.18%  
**Easement Stewardship:** -  
**As a % of the Easement Acquisition:** -

**Leverage Funding Table**

	Leverage Amount Committed	Leverage Amount Confirmed (of Committed Funds)	Leverage Amount Anticipated	Total Leverage
Amount:	\$600,000	\$600,000	\$1,000,000	\$1,500,000
% of Total Leverage:	40.0%	40.0%	66.67%	

N/A

**Detail leverage sources and confirmation of funds:**

DU will leverage OHF grant funds with additional private support from individuals, foundations, and corporations and from federal NAWCA grants. Federal leverage will also come from USFWS (\$500,000 MBCF easement acquisition funds and \$100,000 from IRA).

**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?**

If reduced to 50% of the request, our acres/activities and budget would be scaled proportionately.

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

If reduced to 50% of the request, our personnel and DSS would be scaled proportionately.

**If the project received 30% of the requested funding**

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

If reduced to 30% of the request, our acres/activities and budget would be scaled proportionately.

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

If reduced to 30% of the request, our personnel and DSS would be scaled proportionately.

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

**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?**

DU strives to complete one phase of this program before starting the next, to minimize overlap. Currently, we anticipate completing Phase 9 by the end of 2026. We also anticipate a majority of Phase 10 being spent by the end of 2027. Furthermore, DU assigns a unique project number code to each project, and staff charge time to these site-specific project codes as they work on multiple projects throughout the year. Despite DU staff working on multiple projects and grants throughout the year, charges are only billed to one OHF grant or another, and therefore staff charges throughout the year are incurred on multiple projects funded by multiple grants, and DU staff cost invoicing is both sites-specific and OHF grant-specific.

## Contracts

**What is included in the contracts line?**

The contracts line 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.

## Professional Services

**What is included in the Professional Services line?**

Other : County Ditch Petitions and Outlet Fees, Soil Suitability Investigations

## 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**

None - DU travel costs consist of in-state mileage, food, and lodging only. Travel is primarily mileage and lodging for engineering field staff and biologists during project survey and construction management. DU has not typically invoiced for food or meals in the past, and likely won't do so in the future.

**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?**

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 8% 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.

## Other Equipment/Tools

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

GPS survey equipment for performing engineering wetland restoration survey work and engineering surveys of shallow lake and large wetland enhancement projects, including survey equipment lease charges instead of actual outright equipment purchases to avoid buying equipment that becomes obsolete due to upgrades and advancements. Other equipment may include laptop and/or tablet computers, printers and other office equipment for biologists or engineers may be needed, along with hand tools and other field equipment as needs arise.

## Federal Funds

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

Yes

#### **Are the funds confirmed?**

Yes

Cash : \$500,000

#### **Is Confirmation Document attached?**

Yes, on file

## Output Tables

### Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	200	100	0	0	300
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	1,400	800	0	0	2,200
<b>Total</b>	<b>1,600</b>	<b>900</b>	<b>0</b>	<b>0</b>	<b>2,500</b>

### Restoration/Enhancement Acres Breakdown of Existing Protected Lands (Table 1a.2)

	RESTORE: Lands acquired with OHF	RESTORE: Lands NOT acquired with OHF	ENHANCE: Lands acquired with OHF	ENHANCE: Lands NOT acquired with OHF
DNR Lands (WMA, State Forests, etc.)	0	0	0	1,000
Non-DNR Lands (city, state, federal, etc.)	0	150	0	1,100
Easements	0	150	0	100
<b>Total</b>	<b>0</b>	<b>300</b>	<b>0</b>	<b>2,200</b>

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

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	\$1,136,000	\$100,000	-	-	\$1,236,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	\$10,240,000	\$300,000	-	-	\$10,540,000
<b>Total</b>	<b>\$11,376,000</b>	<b>\$400,000</b>	<b>-</b>	<b>-</b>	<b>\$11,776,000</b>

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

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	50	0	240	10	300
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	100	200	0	1,850	50	2,200
<b>Total</b>	<b>100</b>	<b>250</b>	<b>0</b>	<b>2,090</b>	<b>60</b>	<b>2,500</b>

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

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	\$400,000	-	\$800,000	\$36,000	\$1,236,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	\$500,000	\$1,200,000	-	\$8,800,000	\$40,000	\$10,540,000
<b>Total</b>	<b>\$500,000</b>	<b>\$1,600,000</b>	<b>-</b>	<b>\$9,600,000</b>	<b>\$76,000</b>	<b>\$11,776,000</b>

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

Type	Wetland	Prairie	Forest	Habitat
Restore	\$5,680	\$1,000	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	\$7,314	\$375	-	-

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

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	\$8,000	-	\$3,333	\$3,600
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	\$5,000	\$6,000	-	\$4,756	\$800

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

## Parcels

### Sign-up Criteria?

No

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

Ducks Unlimited prioritizes prairie shallow lake enhancement and wetland restoration and enhancement opportunities that are located in landscapes most heavily used by migrating and breeding waterfowl, and which our DNR and USFWS agency partners have identified and prioritize for optimal waterfowl habitat. Due to the overall shortage of prairie wetlands for breeding ducks, and relatively few shallow lakes in optimal condition for migrating ducks in Minnesota, DU relies on our DNR and USFWS agency partner biologists with land management responsibility to determine shallow lake and wetland project opportunities on public land or under easement. From there, DU prioritizes wetland restorations within landscapes of higher predicted breeding duck use, and prioritizes enhancement of shallow lakes where management success is most probable due to basin depth, landscape and hydrology conditions, and the likelihood that invasive fish can be minimized. For our WPA work, it is largely prioritized by the USFWS "Thunderstorm Map," that predicts breeding waterfowl densities, with this program focusing on the WPAs in the best predicted breeding habitats of the prairie and transition parts of the state.

### Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection	Description
Haverkamp WPA	Becker	14141205	10	\$100,000	Yes	Enhance small wetlands for USFWS.
Lindsey Lake WPA	Becker	14242233	20	\$200,000	Yes	Enhance small wetlands for USFWS.
Severson Lake WPA	Becker	13843202	20	\$200,000	Yes	Enhance small wetlands for USFWS.
Spring Marshes WPA	Becker	14042209	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Stinking Lake WPA	Becker	14043231	50	\$500,000	Yes	Enhance shallow lake for USFWS
Tamarac NWR - Beaver Valley Enhancement	Becker	14039220	10	\$75,000	Yes	Enhance shallow lake for USFWS
Tamarac NWR - Buffalo Headwaters	Becker	14040212	80	\$250,000	Yes	Enhance shallow lake for DNR
Tamarac NWR - Mudd Lake Enhancement	Becker	14039231	130	\$300,000	Yes	Enhance shallow lake for USFWS
Tamarac NWR - Pine Lake Enhancement	Becker	14039229	500	\$500,000	Yes	Enhance shallow lake for USFWS
Barry Lake WPA	Big Stone	12447204	3	\$20,000	Yes	Enhance small wetlands for USFWS.
Bentson Lake WPA	Big Stone	12245207	4	\$35,000	Yes	Enhance small wetlands for USFWS.
Helgenson WPA	Big Stone	12145205	1	\$10,000	Yes	Enhance small wetlands for USFWS.
Hillman WPA	Big Stone	12145215	1	\$10,000	Yes	Enhance small wetlands for USFWS.
Jorgenson WPA	Big Stone	12245203	33	\$50,000	Yes	Enhance wetlands and prairie for FWS
Kufrin WPA	Big Stone	12245221	10	\$100,000	Yes	Enhance small wetlands for USFWS
Lac Qui Parle WMA - Perry Tract Enhancement	Big Stone	12044215	3	\$20,000	Yes	Enhance small wetlands for DNR

Olson WPA	Big Stone	12244201	15	\$100,000	Yes	Enhance small wetlands for USFWS
Otrey Lake WMA	Big Stone	12245222	55	\$200,000	Yes	Engineer and install water control structure for DNR
Prairie WPA	Big Stone	12246236	2	\$15,000	Yes	Enhance small wetlands for USFWS.
Redhead Marsh WPA	Big Stone	12146211	3	\$15,000	Yes	Enhance small wetlands for USFWS.
Rothi WPA	Big Stone	12145202	3	\$25,000	Yes	Enhance small wetlands for USFWS.
Swenson Lake	Big Stone	12246203	314	\$500,000	Yes	Engineer and install water control structure for DNR
Twin Lakes WPA	Big Stone	12246225	1	\$10,000	Yes	Enhance small wetlands for USFWS
Eagle Lake	Blue Earth	10825207	617	\$1,000,000	Yes	Engineer and install pump and water control structure for DNR
Ida Lake Enhancement	Blue Earth	10528212	160	\$750,000	Yes	Enhance shallow lake for DNR
Lost Marsh WMA	Blue Earth	10625235	230	\$300,000	Yes	Enhance shallow lake for DNR
Middle MN River WPA - Wetland Restoration	Brown	10931234	20	\$150,000	Yes	Restore wetlands on WPA for USFWS.
MN Valley NWR - Chaska Lake Enhancement	Carver	11523208	80	\$500,000	Yes	Engineer and install new water control structure for USFWS.
Franko WMA Enhancement	Chippewa	11738214	42	\$150,000	Yes	Engineer and install water control structure for DNR
Bjornson WPA	Clay	13845209	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Eide WPA	Clay	14144221	10	\$100,000	Yes	Enhance small wetlands for USFWS.
Korell WPA	Clay	14144215	30	\$200,000	Yes	Enhance small wetlands for USFWS.
Moe WPA	Clay	14144232	10	\$10,000	Yes	Enhance small wetlands for USFWS.
Clear Lake WPA	Cottonwood	10538235	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Cottonwood Lake WPA	Cottonwood	10535219	2	\$20,000	Yes	Restore small wetlands for USFWS
Harder Lake WPA	Cottonwood	10636216	1	\$5,000	Yes	Engineer and restore small wetlands for USFWS
Rat Lake Enhancement	Cottonwood	10635220	130	\$200,000	Yes	Enhance shallow lake for MNDNR
Watonwan River WPA	Cottonwood	10636211	85	\$150,000	Yes	Enhance wetlands for USFWS
Wolf Lake WPA - Small wetland restorations	Cottonwood	10535231	5	\$20,000	Yes	Restore small wetlands for USFWS
Banke Slough WPA - Small Wetlands	Douglas	12839218	1	\$90,000	Yes	Enhance small wetlands for USFWS
Ernest Olson WPA	Douglas	13040223	2	\$115,000	Yes	Enhance small wetlands for USFWS.
Hegg Lake WMA	Douglas	12740227	73	\$300,000	Yes	Engineer and install water control structure for DNR
Hudson WPA - Small Wetlands	Douglas	12737229	3	\$145,000	Yes	Enhance small wetlands for USFWS
J.I. case WPA - Small Wetlands	Douglas	12840225	2	\$125,000	Yes	Enhance small wetlands for USFWS

Kensington WPA	Douglas	12740233	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Klug WPA - Small Wetlands	Douglas	12840221	1	\$105,000	Yes	Enhance small wetlands for USFWS
Petersen WPA	Douglas	12836229	3	\$145,000	Yes	Enhance small wetlands for USFWS.
Rachel WPA	Douglas	12837211	5	\$55,000	Yes	Enhance small wetlands for USFWS.
Rolling Acres WPA	Douglas	12840231	6	\$155,000	Yes	Enhance small wetlands for USFWS.
Runestone WPA	Douglas	12740214	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Stowe Lake WPA	Douglas	12939218	447	\$150,000	Yes	Enhance wetlands and prairie for FWS
Urness WMA	Douglas	12840210	37	\$200,000	Yes	Engineer and install water control structure for DNR
Maple River WPA	Faribault	10426210	50	\$500,000	Yes	Enhance wetland management with new water level control structures.
Minnesota Lake	Faribault	10425206	1,860	\$500,000	Yes	Enhance shallow lake for DNR
Bhagyam WPA	Freeborn	10121230	15	\$20,000	Yes	Enhance wetlands for USFWS
Twin Lakes WPA	Freeborn	10122202	5	\$50,000	Yes	Restore small wetlands for USFWS
Two Island WPA	Freeborn	10322224	4	\$20,000	Yes	Engineer and restore small wetlands for USFWS
Bailey Slough WPA	Grant	12843206	8	\$30,000	Yes	Enhance small wetlands for USFWS.
Evavold WPA	Grant	13041204	2	\$20,000	Yes	Enhance small wetlands for USFWS.
Frikken WPA	Grant	13042203	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Green WPA	Grant	12843207	6	\$35,000	Yes	Enhance small wetlands for USFWS.
Mud Lake WPA	Grant	13044225	4	\$125,000	Yes	Enhance small wetlands for USFWS.
Pomme de Terre WPA	Grant	13042235	4	\$175,000	Yes	Enhance small wetlands for USFWS.
Stony Brook WPA - Shallow Lake Enhancement	Grant	13043205	118	\$300,000	Yes	Engineer and install water control structure for USFWS
Lake Katrina Enhancement	Hennepin	11823230	485	\$500,000	Yes	Engineer and install new water control structure for Three Rivers Park District.
Three Rivers Park District - Goose Lake Enhancement	Hennepin	12022235	74	\$250,000	Yes	Enhance shallow lake for 3RPD
Three Rivers Park District - Mud Lake Enhancement	Hennepin	11922202	140	\$500,000	Yes	Enhance shallow lake for 3RPD
Boot Lake	Jackson	10335231	155	\$500,000	Yes	Engineer and install new water control structures for MNDNR
Christiania WPA - Small Wetlands	Jackson	10435209	6	\$100,000	Yes	Restore small wetlands for USFWS
Iowa Lake Enhancement	Jackson	10138231	242	\$400,000	Yes	Engineer and install water control structure for DNR

Little Sioux WPA	Jackson	10136230	10	\$100,000	Yes	Enhance small wetlands for USFWS.
Minnesota WPA	Jackson	10137232	30	\$300,000	Yes	Enhance wetlands for USFWS
Sangl WMA	Jackson	10136221	25	\$150,000	Yes	Enhance small wetlands for MNDNR.
Sioux Forks WPA	Jackson	10136218	10	\$100,000	Yes	Enhance small wetlands for USFWS.
Timber Lake WPA	Jackson	10437224	21	\$40,000	Yes	Enhance wetlands for USFWS
Big Kandiyohi Lake WPA	Kandiyohi	11734203	40	\$400,000	Yes	Enhance small wetlands for USFWS.
Brenner Lake WPA	Kandiyohi	12236206	10	\$100,000	Yes	Enhance small wetlands for USFWS.
Burbank WPA	Kandiyohi	12234210	5	\$50,000	Yes	Enhance small wetlands for USFWS
Carlson Lake WPA	Kandiyohi	12034204	10	\$100,000	Yes	Enhance small wetlands for USFWS.
Century WPA - Small Wetlands	Kandiyohi	12136211	10	\$100,000	Yes	Enhance small wetlands for USFWS
Ella Lake WPA	Kandiyohi	11933221	30	\$200,000	Yes	Enhance small wetlands for USFWS
Evenson WPA	Kandiyohi	12035216	15	\$75,000	Yes	Enhance small wetlands for USFWS
Hanson WPA	Kandiyohi	11836214	8	\$80,000	Yes	Enhance small wetlands for USFWS.
Henjum Lake WPA	Kandiyohi	12136222	15	\$150,000	Yes	Enhance small wetlands for USFWS.
Johnson WPA - Small Wetlands	Kandiyohi	11834230	5	\$20,000	Yes	Enhance small wetlands for USFWS
Larson Easement Restoration	Kandiyohi	12034229	10	\$50,000	Yes	Restore small wetlands for USFWS
New London WPA	Kandiyohi	12134204	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Pennock WPA	Kandiyohi	12036234	26	\$50,000	Yes	Enhance small wetlands for USFWS
Randall WPA - Small wetlands	Kandiyohi	12236209	5	\$50,000	Yes	Enhance small wetlands for USFWS
Raymond WPA	Kandiyohi	11836206	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Sunburg WPA Small Wetlands	Kandiyohi	12236219	15	\$75,000	Yes	Enhance small wetlands for USFWS
Swanson WPA Small Wetlands	Kandiyohi	12034222	10	\$50,000	Yes	Enhance small wetlands for USFWS
Uncle Matt's WPA	Kandiyohi	12033232	10	\$100,000	Yes	Enhance small wetlands for USFWS.
Weber WPA - Small wetlands	Kandiyohi	12035221	20	\$200,000	Yes	Enhance small wetlands for USFWS
Yarmon WPA	Kandiyohi	11834223	263	\$400,000	Yes	Engineer and install new water control structure for USFWS
Big Stone NWR - Pool 3/5 Enhancement	Lac qui Parle	12045208	130	\$500,000	Yes	Enhance shallow lake for FWS
Big Stone NWR Pool 4/4A	Lac qui Parle	12145232	275	\$1,500,000	Yes	Engineer and install water control structures for USFWS
Colbert WPA	Lac qui Parle	11744232	10	\$30,000	Yes	Enhance wetlands and prairie for FWS

Goodman WPA	Lac qui Parle	11745229	5	\$20,000	Yes	Enhance wetlands and prairie for FWS
Sweetwater WMA	Lac qui Parle	11746236	69	\$200,000	Yes	Engineer and install water control structure for DNR
Wild Wings WMA	Lac qui Parle	11643223	73	\$250,000	Yes	Engineer and install water control structure for DNR
Sanborn Lake WMA - Dietz Lake Enhancement	Le Sueur	11223235	73	\$300,000	Yes	Engineer and install water control structure for DNR
Agribank WPA	Lincoln	11146205	25	\$150,000	Yes	Enhance small wetlands for USFWS
Anderson Lake Enhancement	Lincoln	11145206	275	\$400,000	Yes	Enhance shallow lake for DNR
Fox WPA	Lincoln	11045222	20	\$100,000	Yes	Enhance small wetlands for USFWS
Knofczynski WPA	Lincoln	11245227	10	\$50,000	Yes	Enhance small wetlands for USFWS
Kontz WPA	Lincoln	11345206	20	\$100,000	Yes	Enhance small wetlands for USFWS
Northern Tallgrass Prairie NWR - Gislason Lake Unit Small Wetlands	Lincoln	11144201	15	\$70,000	Yes	Enhance small wetlands for USFWS
Prairie Dell WMA Enhancement	Lincoln	11345216	5	\$50,000	Yes	Enhance small wetlands for DNR
Rochel WPA	Lincoln	11045201	15	\$50,000	Yes	Enhance small wetlands for USFWS
Rook WPA	Lincoln	11345227	17	\$75,000	Yes	Enhance small wetlands for USFWS
Weber WPA	Lincoln	11045222	11	\$50,000	Yes	Enhance small wetlands for USFWS
Arends WPA	Lyon	11343218	5	\$20,000	Yes	Enhance small wetlands for USFWS
Bendix I WPA	Lyon	10941220	5	\$35,000	Yes	Enhance wetlands and prairie for FWS
Bendix II WPA	Lyon	10941221	5	\$15,000	Yes	Enhance wetlands and prairie for FWS
Black Rush Lake WPA	Lyon	11042216	30	\$125,000	Yes	Enhance small wetlands for USFWS
Lyons WMA - Brown Marsh Enhancement	Lyon	11042228	70	\$300,000	Yes	Enhance shallow lake with water control structure for MNDNR
North Twin Lake Enhancement	Lyon	10940219	115	\$250,000	Yes	Engineer and install water control structure for DNR
Peterson WPA	Lyon	10942230	5	\$20,000	Yes	Enhance small wetlands for USFWS
Sherman WPA	Lyon	10941218	10	\$25,000	Yes	Enhance wetlands and prairie for FWS
Church Lake Restoration	Mahnomen	14641232	206	\$500,000	Yes	Engineer and install water control structure for DNR
Jason Barker WPA East	Mahnomen	14542224	3	\$20,000	Yes	Enhance small wetlands for USFWS
Agassiz NWR - Madsen Pool	Marshall	15642215	100	\$50,000	Yes	Enhance wetland management with new water level control structures.
Agassiz NWR - Mud Lake Main Agassiz Pool	Marshall	15641220	5,000	\$1,000,000	Yes	Enhance wetland management with berms.

Agassiz NWR - Pool 8	Marshall	15642203	100	\$50,000	Yes	Enhance wetland management with new water level control structures.
Clam Lake	Martin	10332215	72	\$200,000	Yes	Engineer and install water control structure for MNDNR
Duck Lake Restoration	Martin	10333211	100	\$300,000	Yes	Restore shallow lake for USFWS
Four Corners WMA - Small Wetlands	Martin	10332231	10	\$50,000	Yes	Enhance small wetlands for USFWS
Holmes Lake Restoration	Martin	10232235	100	\$750,000	Yes	Engineer and install water control structure for USFWS
Rooney Run WMA - Round Lake Enhancement	Martin	10332221	45	\$200,000	Yes	Engineer and install water level control structure for MNDNR
Rooney Run WMA - Small Wetlands	Martin	10332210	5	\$30,000	Yes	Enhance small wetlands for DNR
Seymour WMA Small Wetlands	Martin	10332220	5	\$30,000	Yes	Enhance small wetlands for USFWS
Clear Lake WPA	Meeker	12130210	10	\$75,000	Yes	Engineer and install new water control structure for USFWS.
Hanson Lake WPA	Meeker	11931207	21	\$210,000	Yes	Enhance small wetlands for USFWS.
Harvey WPA	Meeker	12031231	40	\$400,000	Yes	Enhance small wetlands for USFWS.
Lake Harden WPA Small Wetlands	Meeker	11831236	10	\$75,000	Yes	Enhance small wetlands for USFWS
Litchfield WPA	Meeker	11931236	20	\$200,000	Yes	Restore wetlands for USFWS.
Meeker Easement 107X	Meeker	11930204	25	\$250,000	Yes	Enhance wetland for USFWS with new water control structure.
Meeker Easement 162X	Meeker	12029213	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Meeker Easement 205X, 204X, 126X	Meeker	12029225	35	\$150,000	Yes	Restore small wetlands for USFWS
Peifer WPA Shallow Lake Enhancement	Meeker	11930204	81	\$200,000	Yes	Engineer and install water control structure for USFWS
Rodewald WMA - Wetland Restoration	Meeker	11832220	25	\$300,000	Yes	Engineer and install new water control structure for MNDNR.
Rosendale WPA	Meeker	11832216	20	\$100,000	Yes	Enhance small wetlands for USFWS
Seifert Easement Restoration	Meeker	11931236	20	\$100,000	Yes	Restore small wetlands for USFWS
Tyrone Flats WPA	Meeker	12131213	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Buffalo Lake WMA Wetland Restoration	Murray	10739207	10	\$50,000	Yes	Restore small wetlands for MNDNR.
Devils Run WPA	Murray	10639206	28	\$200,000	Yes	Engineer and install new water control structure for USFWS
Haberman WMA Restoration	Murray	10539217	100	\$150,000	Yes	Restore small wetlands and grassland for DNR
Kramer FWS Easement Restoration	Murray	10839229	30	\$300,000	Yes	Restore small wetlands for USFWS







Lowville WMA Enhancement	Murray	10742212	45	\$100,000	Yes	Enhance shallow lake for MNDNR
Shetek WMA - Robbins Slough Enhancement	Murray	10840222	245	\$350,000	Yes	Engineer and install water control structure for MNDNR
Shetek WMA - Round Lake Enhancement	Murray	10840221	171	\$200,000	Yes	Engineer and install new water control structure for MNDNR.
Slaughter Slough WPA	Murray	10740211	20	\$125,000	Yes	Engineer and restore small wetlands for USFWS
Swan Lake WMA - Small Wetlands	Nicollet	10928206	10	\$150,000	Yes	Enhance and restore small wetlands for DNR
Bloom WPA	Nobles	10441220	4	\$20,000	Yes	Engineer and restore small wetlands for USFWS
Graham Lake WPA	Nobles	10439220	14	\$70,000	Yes	Engineer and restore small wetlands for USFWS
Lake Bella WPA	Nobles	10140227	1	\$5,000	Yes	Engineer and restore small wetlands for USFWS
Worthington WPA	Nobles	10240224	2	\$20,000	Yes	Enhance small wetlands for USFWS.
Backstrom WPA - Small Wetlands	Otter Tail	13543208	3	\$40,000	Yes	Enhance small wetlands for USFWS
Baumann WPA	Otter Tail	13237205	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Duenow WPA	Otter Tail	13442233	3	\$20,000	Yes	Enhance small wetlands for USFWS
Erhard's Grove WPA - Small Wetlands	Otter Tail	13543228	2	\$140,000	Yes	Enhance small wetlands for USFWS
Fitzgerald WPA	Otter Tail	13743208	2	\$40,000	Yes	Enhance small wetlands for USFWS.
Gardner WPA	Otter Tail	13644203	1	\$15,000	Yes	Enhance small wetlands for USFWS.
Grady Mann WPA	Otter Tail	13144228	3	\$140,000	Yes	Enhance small wetlands for USFWS.
Haihy WPA	Otter Tail	13644212	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Headquarters WPA - Small Wetlands	Otter Tail	13242201	1	\$5,000	Yes	Enhance small wetlands for USFWS
Hi View WMA	Otter Tail	13243224	56	\$500,000	Yes	Enhance shallow lake for DNR
Jorgenson WPA	Otter Tail	13144203	6	\$15,000	Yes	Enhance small wetlands for USFWS.
Kunz WPA	Otter Tail	13243220	95	\$50,000	Yes	Enhance small wetlands for USFWS
Mortenson WPA Small Wetlands	Otter Tail	13241214	5	\$50,000	Yes	Enhance small wetlands for USFWS
Nelson WPA	Otter Tail	13743206	1	\$30,000	Yes	Enhance small wetlands for USFWS.
Pelican Valley WPA	Otter Tail	13543204	3	\$20,000	Yes	Enhance small wetlands for USFWS.
Rokes WPA	Otter Tail	13337220	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Simpson WPA	Otter Tail	13643235	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Stange Lake WPA - Small Wetlands	Otter Tail	13242210	2	\$75,000	Yes	Enhance small wetlands for USFWS.
Tomhave WPA	Otter Tail	13343219	43	\$25,000	Yes	Enhance small wetlands for USFWS

Tweeton WPA	Otter Tail	13743207	1	\$35,000	Yes	Enhance small wetlands for USFWS.
Wildung WPA	Otter Tail	13343219	83	\$45,000	Yes	Enhance small wetlands for USFWS
Clarke WPA	Polk	14941207	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Hill River WPA	Polk	14841201	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Lepier WPA	Polk	14740206	10	\$100,000	Yes	Enhance small wetlands for USFWS.
Mcintosh WPA	Polk	14841216	1	\$10,000	Yes	Enhance small wetlands for USFWS.
Ann Lake WPA	Pope	12638227	4	\$135,000	Yes	Enhance small wetlands for USFWS.
Glenwood WPA	Pope	12537234	15	\$100,000	Yes	Enhance small wetlands for USFWS
Grove Lake WPA	Pope	12536228	10	\$100,000	Yes	Enhance small wetlands for USFWS
Jorgenson WPA	Pope	12639202	10	\$10,000	Yes	Enhance small wetlands for USFWS.
Kolstad Lake WPA	Pope	12338206	15	\$50,000	Yes	Enhance wetlands and prairie for FWS
Krantz Lake WPA	Pope	12536202	15	\$70,000	Yes	Enhance small wetlands for USFWS
Mattson WPA	Pope	12640210	7	\$50,000	Yes	Enhance small wetlands for USFWS.
Ouren WPA	Pope	12437232	5	\$160,000	Yes	Enhance small wetlands for USFWS.
Rolling Forks WPA	Pope	12338229	10	\$50,000	Yes	Enhance small wetlands for USFWS
Stenerson Lake WPA	Pope	12438203	13	\$15,000	Yes	Enhance small wetlands for USFWS.
Stenson Lake WPA	Pope	12438223	4	\$115,000	Yes	Enhance small wetlands for USFWS.
Stewart WPA	Pope	12539215	15	\$100,000	Yes	Engineer and install new water control structure for USFWS.
Wall WPA	Pope	12437218	9	\$90,000	Yes	Enhance small wetlands for USFWS.
Coal Mine Creek WMA Restoration	Redwood	10936214	150	\$750,000	Yes	Restore small wetlands and grassland for DNR
Daubs Lake Enhancement	Redwood	11137211	175	\$250,000	Yes	Engineer and install water control structure for DNR
Westline WMA	Redwood	11139213	200	\$200,000	Yes	Engineer and install water level control structure for MNDNR
Beaver Falls WMA - Wetland Enhancement	Renville	11335223	30	\$250,000	Yes	Engineer and install new water control structure for MNDNR.
Boon Lake Enhancement	Renville	11631205	858	\$500,000	Yes	Engineer and install a water control structure and permanent pump for MNDNR
Brookfield WPA	Renville	11632202	5	\$50,000	Yes	Enhance small wetlands for USFWS
St. Olaf - Big Pond Enhancement	Rice	11220235	10	\$100,000	Yes	Engineer and install water control structure for FWS

MN Valley NWR - Louisville Swamp Enhancement	Scott	11423205	75	\$500,000	Yes	Engineer and install new water control structure for USFWS.
Sherburne NWR - East Bergerson Enhancement	Sherburne	03427203	20	\$100,000	Yes	Enhance large wetland for USFWS
Sherburne NWR - West Carpenter Pool Enhancement	Sherburne	03528226	70	\$300,000	Yes	Engineer and install new water control structure for USFWS.
Washington Lake Enhancement	Sibley	11426215	600	\$500,000	Yes	Engineer and install new water control structure for MNDNR.
Ashley WPA	Stearns	12635229	20	\$200,000	Yes	Enhance small wetlands for USFWS.
Collegeville WPA	Stearns	12430234	3	\$30,000	Yes	Enhance small wetlands for USFWS.
Crow River WMA Enhancement	Stearns	12334228	77	\$300,000	Yes	Engineer and install water control structure for DNR
McCormick Lake WPA Small Wetlands	Stearns	12634224	5	\$25,000	Yes	Enhance small wetlands for USFWS
Padua WPA	Stearns	12535206	10	\$10,000	Yes	Enhance small wetlands for USFWS.
Pope WPA	Stearns	12535207	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Prairie Storm WPA	Stearns	12535219	5	\$50,000	Yes	Enhance small wetlands for USFWS.
Roscoe WPA Small Wetlands	Stearns	12332236	20	\$150,000	Yes	Enhance small wetlands for USFWS
St Martin WPA Small Wetlands	Stearns	12432212	20	\$100,000	Yes	Enhance small wetlands for USFWS
Stearns Easement 181x	Stearns	12632232	37	\$500,000	Yes	Enhance large wetland for USFWS
USFWS Easement - 181X	Stearns	12632232	38	\$200,000	Yes	Engineer and install water control structure for FWS
Uhlenkolts Lake WPA	Stearns	12532208	2	\$20,000	Yes	Enhance small wetlands for USFWS.
Whitney WPA	Stearns	12635211	20	\$200,000	Yes	Enhance small wetlands for USFWS.
Wiener WPA	Stearns	12635221	10	\$50,000	Yes	Enhance small wetlands for USFWS
Zehrer WPA	Stearns	12634205	2	\$20,000	Yes	Enhance small wetlands for USFWS.
Edwards WPA - Small Wetlands	Stevens	12441208	1	\$40,000	Yes	Enhance small wetlands for USFWS
Fish Lake WPA	Stevens	12544201	8	\$20,000	Yes	Enhance wetlands and prairie for FWS
Fults WPA	Stevens	12542205	10	\$25,000	Yes	Enhance wetlands and prairie for FWS
Geise WPA	Stevens	12643214	32	\$50,000	Yes	Enhance wetlands and prairie for FWS
Long Lake WPA	Stevens	12441203	3	\$15,000	Yes	Enhance small wetlands for USFWS.
Pepperton WPA	Stevens	12543214	1	\$10,000	Yes	Enhance small wetlands for USFWS
Schultz WPA	Stevens	12443212	30	\$200,000	Yes	Enhance small wetlands for USFWS
Artichoke Lake WPA	Swift	12244209	15	\$70,000	Yes	Enhance small wetlands for USFWS

Brady WPA	Swift	12237225	5	\$30,000	Yes	Enhance wetlands and prairie for FWS
Fahl WPA	Swift	12238206	19	\$45,000	Yes	Enhance wetlands and prairie for FWS
Johnson Lake Enhancement	Swift	12239217	179	\$500,000	Yes	Enhance shallow lake with water control structure for MNDNR
Lac Qui Parle WMA - Williamson Unit Enhancement	Swift	12043217	12	\$100,000	Yes	Enhance small wetlands for DNR
Loen WPA - Small Wetlands	Swift	12238207	3	\$15,000	Yes	Enhance small wetlands for USFWS.
Loose WPA	Swift	12243232	5	\$30,000	Yes	Enhance small wetlands for USFWS
Lynch Lake WPA	Swift	12240227	5	\$30,000	Yes	Enhance small wetlands for USFWS
Svor WPA	Swift	12238217	5	\$85,000	Yes	Enhance small wetlands for USFWS.
Welsh WPA	Swift	12238234	50	\$200,000	Yes	Enhance small wetlands for USFWS
Aurzada Prairie WMA	Todd	12735208	5	\$50,000	Yes	Engineer and install water control structure for DNR
West Union WMA	Todd	12735209	30	\$250,000	Yes	Engineer and install water control structure for DNR
Diekmann WPA - Small Wetlands	Traverse	12548235	2	\$75,000	Yes	Enhance small wetlands for USFWS
Gibson WPA - Small Wetlands	Traverse	12548233	1	\$165,000	Yes	Enhance small wetlands for USFWS
Jenk WPA - Small Wetlands	Traverse	12548235	1	\$175,000	Yes	Enhance small wetlands for USFWS
Murphy WPA	Traverse	12548236	1	\$180,000	Yes	Enhance small wetlands for USFWS.
Pederson WPA	Traverse	12548206	3	\$30,000	Yes	Enhance small wetlands for USFWS.
Robinhood WPA	Traverse	12548217	15	\$85,000	Yes	Enhance small wetlands for USFWS.
Keystone Woods WMA - Wetland Enhancement	Washington	03120218	125	\$750,000	Yes	Wetland enhancement for DNR on Keystone Woods WMA after purchase by TPL.
Sulem WMA	Watonwan	10533205	226	\$500,000	Yes	Engineer and install water level control structure for MNDNR
Angus Lake WPA	Wright	12126236	22	\$220,000	Yes	Enhance small wetlands for USFWS.
Annandale WPA	Wright	12127232	5	\$100,000	Yes	Enhance small wetlands for USFWS.
Corinna WPA	Wright	12127213	5	\$100,000	Yes	Enhance small wetlands for USFWS.
Pelican Lake WPA - Small wetlands	Wright	12125236	15	\$200,000	Yes	Enhance small wetlands for USFWS.
Dakota WPA	Yellow Medicine	11446205	20	\$200,000	Yes	Enhance small wetlands for USFWS
Kontz WPA	Yellow Medicine	11546231	10	\$100,000	Yes	Enhance small wetlands for USFWS
Spellman WMA - Miedd Lake	Yellow Medicine	11441223	50	\$100,000	Yes	Engineer and install water control structure for MN DNR

Parcel Map

-  Protect in Easement
-  Protect in Fee with PILT
-  Protect in Fee W/O PILT
-  Restore
-  Enhance
-  Other

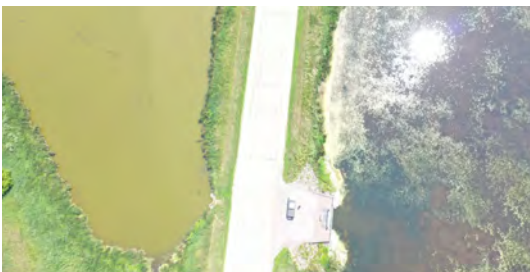


LIVING LAKES

# LIVING SHALLOW LAKE ENHANCEMENT & WETLAND RESTORATION INITIATIVE

**Proposal Request:** \$11,776,000

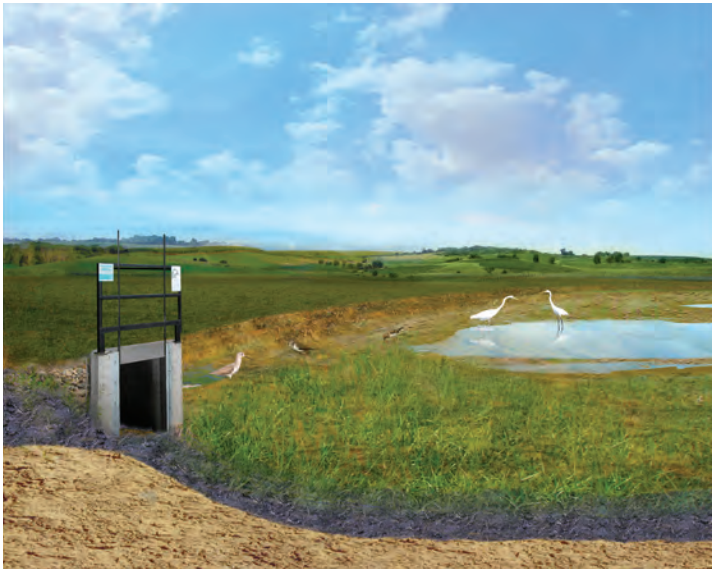
**Proposal Abstract:** This Phase 13 request for Ducks Unlimited's Living Lakes program will enhance or restore 2,500 acres of wetlands and adjacent prairie grasslands for the U.S. Fish & Wildlife Service and Minnesota DNR on public lands and private lands under permanent USFWS easement. Where required, DU engineers will design water control structures to restore wetland hydrology and allow active management of shallow lake water levels to enhance their ecology for ducks, other wildlife, and people, primarily in Minnesota's Prairie Pothole Region. DU staff design restoration and enhancement projects and hire private contractors to implement enhancement and restoration activities.





## STAGE 1

Pre-enhancement turbid water state typical of many shallow lakes located in the prairie and transition zones of Minnesota and Iowa. Note the lack of rooted aquatic plants resulting from stagnant high water levels, as well as the presence of undesirable fish and lack of upland perennial cover creating both internal and external nutrient loading. This condition is exacerbated by above-average precipitation patterns, increased drainage, and connectivity within the watershed. Lakes in this turbid water condition provide poor waterfowl and wildlife habitat and impaired water quality.



## STAGE 2

Once the physical and legal means are in place, a drawdown is a common management practice used to shift shallow lakes from a turbid water state to a clear water state. Note sediment consolidation and the re-growth of rooted aquatic plants from the natural seed bank. Drawdown also helps control undesirable fish populations. A DU designed and constructed water control structure, such as the one illustrated above, will allow agency managers to manipulate water levels to enhance water quality and wildlife habitat. Upland restoration also helps improve habitat and sustain water quality improvements.



## STAGE 3

Post management drawdown clear water state typical of a healthy shallow lake system. Note the restored water levels and water quality, abundance of rooted aquatic plants, invertebrate response, and overall wildlife habitat improvement. When conditions in a managed shallow lake deteriorate over time, the water control structure, such as the one illustrated above, can be managed in accordance with a lake specific comprehensive management plan to help maintain and improve habitat conditions and water quality.

**SPECIAL NOTE:** A managed drawdown mimics natural water level fluctuation such as temporary drought conditions, which are necessary for a healthy shallow lake much like fire is to native prairie.