



Lessard-Sams Outdoor Heritage Council

Living Shallow Lake Enhancement & Wetland Restoration Initiative - Phase VIII
Laws of Minnesota 2022 Accomplishment Plan

General Information

Date: 09/25/2023

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

Funds Recommended: \$5,155,000

Legislative Citation: ML 2022, Ch. 77, Art. 1, Sec. 2, subd. 4(f)

Appropriation Language: \$5,155,000 the second year is to the commissioner of natural resources for an agreement with Ducks Unlimited to restore and enhance shallow lakes and wetlands on public lands and wetlands under permanent conservation easement for wildlife management. A list of proposed shallow lake enhancements and wetland restorations must be provided as part of the required accomplishment plan.

Manager Information

Manager's Name: John Lindstrom

Title: Regional Biologist - Minnesota

Organization: Ducks Unlimited

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Location Information

County Location(s): Le Sueur, Marshall, Big Stone, Grant, Sibley, Otter Tail, Douglas, Todd, Traverse, Nobles, Stevens, Lac qui Parle, Meeker, Martin, Redwood, Murray, Freeborn, Pope, Becker, Cottonwood, Sherburne, Swift, Jackson, Carver, Scott, Kandiyohi, Brown, Lyon, Lincoln, Yellow Medicine, Steele, Watonwan, Morrison and Renville.

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 Phase 8 request for Ducks Unlimited's Living Lakes program will enhance or restore 1,070 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. While DU staff design restoration and enhancement projects, DU hires private contractors to implement enhancement and restoration activities.

Design and Scope of Work

This Phase 8 of Ducks Unlimited's ongoing shallow lake enhancement and prairie wetland restoration conservation program will strive to enhance 860 acres of shallow lakes and grasslands, and restore 210 acres of wetlands and grasslands, primarily in the Prairie Pothole Region of SW Minnesota. DU partners with the U.S. Fish & Wildlife Service (FWS) and Minnesota DNR to design water control structures with fish barriers to enhance degraded shallow lakes and restore drained wetlands on public land and under easement. Water control structures are used to conduct temporary water level draw-downs to rejuvenate shallow lake ecology and productivity for wildlife. Structures are constructed by private sector firms hired by DU and are managed by FWS or DNR. Adjacent grasslands will be restored/enhanced to buffer wetlands.

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 around them. 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 received 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 to survive. These factors have caused a significant decline in Minnesota's once diverse waterfowl population, and as a result, in Minnesota's rich waterfowling traditions.

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

How does the plan address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species?

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

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

Describe how the plan uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:

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

Indian Lake is a 377-acre priority shallow lake in Sibley County, identified as having a high level of biological significance, and as having moderate biodiversity significance by the MCBS. Ducks Unlimited has purchased and restored four properties around the lake in an effort to reduce agricultural runoff and improve water quality in Indian Lake, as well as provide increased habitat for waterfowl and other wetland- and grassland-dependent wildlife.

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

Several federal Waterfowl Production Areas (WPA) in west-central Minnesota are located in landscapes with moderate biodiversity significance in a large complex of fee-title and protected private lands under permanent easement. Key parts of this landscape currently supports 31-40 breeding duck pairs per square mile, with the potential to support 81-100 breeding duck pairs per square mile once wetlands are restored.

Big Stone National Wildlife Refuge Pool 4/4A is 200 acres of wetland habitat 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 41-50 breeding duck pairs per square mile. These enhanced wetlands will provide additional habitat for birds throughout their annual cycle.

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

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

Which two other plans are addressed in this program?

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

Which LSOHC section priorities are addressed in this program?

Forest / Prairie Transition

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

Metro / Urban

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

Prairie

- Protect, restore, and enhance shallow lakes

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. Specifically, the USFWS Habitat and Population Evaluation Team (HAPET) works with federal Wetland Management District staff and partners such as MNDNR and DU to continually assess and refine habitat restoration and management strategies to optimize wildlife habitat.*

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 Minnesota River NWR and/or Three Rivers Park District that are perpetually protected, managed, monitored, and evaluated annually by highly-trained U.S. Fish & Wildlife Service or Park District wildlife biologists. Service and Park District 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 ~ *DU will enhance shallow lakes and wetlands to make them more productive for waterfowl and other wetland-dependent wildlife, which is a statewide concern due to statewide wetland loss and degradation. Wildlife response to wetland project improvements will be monitored, measured, and evaluated by conservation agency partner biologists including Minnesota DNR, USFWS, and Tribal Department of Natural Resource staff biologists.*

Programs in prairie region:

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

Does this program include leveraged funding?

Yes

Explain the leverage:

DU strives to use all of our non-federal expense to leverage federal NAWCA grant funds to further our conservation mission. However, NAWCA is highly competitive and complex, and proposal success is uncertain. Nonetheless, DU works closely with Minnesota DNR, and NGO partners to offer recent past state OHF acquisitions as non-federal match to leverage federal NAWCA funds to help fund shallow lake and wetland restoration projects. DU intends to partner with DNR and other NGOs to pursue NAWCA grant funds in the future to help implement projects funded through this appropriation.

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.

Non-OHF Appropriations

Year	Source	Amount
2020	DU private and federal USFWS and NAWCA grant funds	-
2018	DU private and federal USFWS and	-

	NAWCA grant funds	
2017	DU private and federal USFWS and NAWCA grant funds	-
2014	DU private and federal USFWS and NAWCA grant funds	\$731,000
2012	DU private and federal USFWS and NAWCA grant funds	\$839,300
2010	DU private and federal USFWS and NAWCA grant funds	\$1,205,400
2009	DU private and federal USFWS and NAWCA grant funds	\$1,111,000

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

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2024	DNR Game & Fish Account, OHF for DNR Shallow Lakes Program and DNR Roving Crews	DNR Area Wildlife and Shallow Lakes Program Staff will assess shallow lake and wetland conditions following initial water level draw-downs, and document for management consideration	Every 3-8 years, depending on wetland conditions, water control structures will be used to actively manage and enhance shallow lakes and wetlands via temporary water level draw-down to remove fish, stimulate aquatic plants, and rejuvenate their overall aquatic ecology, which includes stimulating aquatic invertebrate production. Some basins may need pumping via DNR pump purchased by DU via previous 2012 OHF grant.	DNR assess ecological conditions again following subsequent temporary water level draw-downs and refilling management treatments, and communicate results and questions or concerns to DU.

Provide an assessment of how your program celebrates cultural diversity or reaches 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 BIPOC 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. Generational wealth in BIPOC communities is compromised by a lack of natural infrastructure such as wetlands. BIPOC community resiliency is enhanced by the function of wetlands and adjacent grassland habitats that clean water and help absorb impacts from severe weather events.

Restoring wetlands in the Mississippi River watershed benefits BIPOC 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.

Public lands and waters also provide numerous opportunities for fishing, hunting, canoeing, kayaking, birding, and outdoor education for BIPOC communities that may not otherwise have access to natural open spaces. 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 helps to support the health, resiliency, and well-being of BIPOC communities.

In this program, DU will work with U.S. Fish & Wildlife Service's Minnesota Valley National Wildlife Refuge to enhance Chaska Lake in Carver County and other wetlands near the Twin Cities. The Refuge works to connect the vibrant cultures of the Twin Cities metro with the diversity of wildlife and habitat along the Minnesota River. With more than 46 miles of trails and two visitor centers, the Refuge welcomes visitors to enjoy the variety of outdoor experiences offered. Established in 1976 by motivated residents, the Refuge preserved wildlife resources threatened by commercial and industrial development. Now, the Refuge enhances 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 the wilder stretches of the Minnesota River.

Activity Details

Requirements

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

Yes

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

Yes

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

Yes

Where does the activity take place?

- WMA
- WPA
- Permanently Protected Conservation Easements
- Public Waters
- Refuge Lands

Land Use

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

No

Timeline

Activity Name	Estimated Completion Date
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Recon projects with DNR and FWS partners and begin engineering survey and design of wetland restorations and shallow lake enhancements	June 2023
Complete remaining small wetland projects and larger shallow lake enhancement water control structure installations	June 2027
Complete some small wetland restorations and some larger shallow lake enhancements	June 2025

Date of Final Report Submission: 11/01/2027

Availability of Appropriation: Subd. 7. Availability of Appropriation

(a) Money appropriated in this section may not be spent on activities unless they are directly related to and necessary for a specific appropriation and are specified in the accomplishment plan approved by the Lessard-Sams Outdoor Heritage Council. Money appropriated in this section must not be spent on indirect costs or other institutional overhead charges that are not directly related to and necessary for a specific appropriation. Money appropriated to acquire land in fee may be used to restore, enhance, and provide for public use of the land acquired with the appropriation. Public-use facilities must have a minimal impact on habitat in acquired lands.

(b) Money appropriated in this section is available as follows:

(1) money appropriated for acquiring real property is available until June 30, 2026;

(2) money appropriated for restoring and enhancing land acquired with an appropriation in this act is available for four years after the acquisition date with a maximum end date of June 30, 2030;

(3) money appropriated for restoring or enhancing other land is available until June 30, 2027;

(4) notwithstanding clauses (1) to (3), money appropriated for a project that receives at least 15 percent of its funding from federal funds is available until a date sufficient to match the availability of federal funding to a maximum of six years if the federal funding was confirmed and included in the original approved draft accomplishment plan; and

(5) money appropriated for other projects is available until the end of the fiscal year in which it is appropriated.

Budget

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

Totals

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$967,000	\$100,000	USFWS, NAWCA, & Private DU	\$1,067,000
Contracts	\$3,800,000	\$145,000	DU private and federal NAWCA grants	\$3,945,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	\$195,000	USFWS federal Migratory Bird Fund	\$195,000
Easement Stewardship	-	-	-	-
Travel	\$80,000	\$5,000	DU private and federal NAWCA grants	\$85,000
Professional Services	\$50,000	-	-	\$50,000
Direct Support Services	\$80,000	-	-	\$80,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	\$30,000	-	-	\$30,000
Other Equipment/Tools	\$98,000	\$5,000	DU private and federal NAWCA grants	\$103,000
Supplies/Materials	\$50,000	-	-	\$50,000
DNR IDP	-	-	-	-
Grand Total	\$5,155,000	\$450,000	-	\$5,605,000

Personnel

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
DU Professional Biologists, Engineers, Surveyors, Construction Managers, and seasonal staff to design and implement projects	2.8	3.0	\$900,000	\$100,000	USFWS, NAWCA, & Private DU	\$1,000,000
DU Manager and staff - Grant Administration & Program/Project Coordination	0.25	3.0	\$67,000	-	-	\$67,000

Capital Equipment

Item	Funding Request	Leverage	Leverage Source	Total
Tracked ATV/UTV, trailer, and GPS survey instruments	\$30,000	-	-	\$30,000

for topographic elevational surveys to design wetland restorations				
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Amount of Request: \$5,155,000
Amount of Leverage: \$450,000
Leverage as a percent of the Request: 8.73%
DSS + Personnel: \$1,047,000
As a % of the total request: 20.31%
Easement Stewardship: -
As a % of the Easement Acquisition: -

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

This program budget was reduced proportional to the funding allocated as much as possible, however the budget for Personnel remains higher than other categories due to need for DU staff to design and implement work involved. Additionally, DU will rely more on field biologists and seasonal technicians to implement enhancements.

Describe and explain leverage source and confirmation of funds:

USFWS pledged \$10,000 in-kind staff and \$170,000 of MBF federal expense. DU will provide private funds from individuals/foundations/corporations as funds are raised, and seek federal NAWCA grants by using OHF grant expense for match for specific shallow lake and wetland restoration projects proposed in this program.

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?

OHF appropriations fund a team of DU professional staff biologists, engineers, and technicians who work on multiple projects across multiple years. Hourly charges for each project are only invoiced to one specific OHF appropriation, and staff move onto new projects funded via new OHF appropriations as older projects are completed. This appropriation funds a team of DU staff in Minnesota who work on multiple projects and OHF grants, and DU tries to minimize overlap by striving to complete most projects in current OHF grants before beginning new projects in the next phase of the same OHF program. Sometimes, large projects are surveyed, designed, and engineered in an earlier phase, and then implemented through subsequent phases due to time required for permitting, easements, and other permissions required.

Contracts

What is included in the contracts line?

Contracts are competitively-bid to private sector construction and restoration firms that specialize in earth moving, water control structure installation, drain-tile and tree removal, and native grass/forb seed installation. Very little work is done directly by DU staff, other than seeding of small areas such as wetlands and disturbed areas.

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; all DU travel charges are in-state mileage and lodging (DU does not invoice for meals).

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 (DSS), which DU calculates as part of our staff costs for staff support services. On average, DU DSS constitutes approximately 8% of our overall staff costs among all billable DU conservation staff categories. DU breaks out and invoices for DSS expenses approved by MNDNR for reimbursement separately from Personnel expenses incurred.

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

Is Confirmation Document attached?

[Yes](#)

- Cash : \$350,000
- In Kind : \$100,000

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

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	140	70	-	-	210
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	835	25	-	-	860
Total	975	95	-	-	1,070

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	\$1,155,000	\$220,000	-	-	\$1,375,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	\$3,500,000	\$280,000	-	-	\$3,780,000
Total	\$4,655,000	\$500,000	-	-	\$5,155,000

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	10	60	-	140	-	210
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	60	40	-	660	100	860
Total	70	100	-	800	100	1,070

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	\$110,000	\$560,000	-	\$705,000	-	\$1,375,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	\$752,000	\$200,000	-	\$2,600,000	\$228,000	\$3,780,000
Total	\$862,000	\$760,000	-	\$3,305,000	\$228,000	\$5,155,000

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	\$8,250	\$3,142	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	\$4,191	\$11,200	-	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	\$11,000	\$9,333	-	\$5,035	-
Protect in Fee with State PILT Liability	-	-	-	-	-

Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	\$12,533	\$5,000	-	\$3,939	\$2,280

Target Lake/Stream/River Feet or Miles

Parcels

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

Parcel Information

Sign-up Criteria?

No

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

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.

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Hamden Slough NWR	Becker	13942202	3	\$25,000	Yes
Otrey Lake WMA	Big Stone	12245222	116	\$175,000	Yes
Kufrin WPA	Big Stone	12245221	3	\$25,000	Yes
USFWS Easement - Rolfmeier Upland Enhancement	Big Stone	12044202	40	\$25,000	Yes
Twin Lakes WPA	Big Stone	12246225	1	\$10,000	Yes
Dismal Swamp WPA	Big Stone	12345214	10	-	Yes
Rothi WPA	Big Stone	12145202	3	\$25,000	Yes
Prairie WPA	Big Stone	12246236	2	\$15,000	Yes
Redhead Marsh WPA	Big Stone	12146211	3	\$15,000	Yes
Boehnke WPA	Big Stone	12347211	3	-	Yes
Lane WPA	Big Stone	12447227	2	-	Yes
Seidl WPA	Big Stone	12447225	5	-	Yes
Karsky WPA	Big Stone	12346207	9	-	Yes
Bauman WPA	Big Stone	12346220	3	-	Yes
Lac qui Parle WMA - Small wetland restorations	Big Stone	12044214	10	\$50,000	Yes
Hillman WPA	Big Stone	12145215	1	\$10,000	Yes
Barry Lake WPA	Big Stone	12447204	3	-	Yes
Bentson Lake WPA	Big Stone	12245207	4	-	Yes
Helgenon WPA	Big Stone	12145205	1	\$10,000	Yes
Middle MN River WPA - Wetland Restoration	Brown	10931234	20	\$150,000	Yes
Three Rivers Park District - Lake 2 Enhancement	Carver	11624204	35	\$200,000	Yes
MN Valley NWR - Chaska Lake Enhancement	Carver	11523208	80	\$500,000	Yes
Cottonwood Lake WPA	Cottonwood	10535219	2	\$20,000	Yes
Wolf Lake WPA - Small wetland restorations	Cottonwood	10535231	5	\$20,000	Yes
Long Lake - enhancement	Cottonwood	10638222	200	\$30,000	Yes

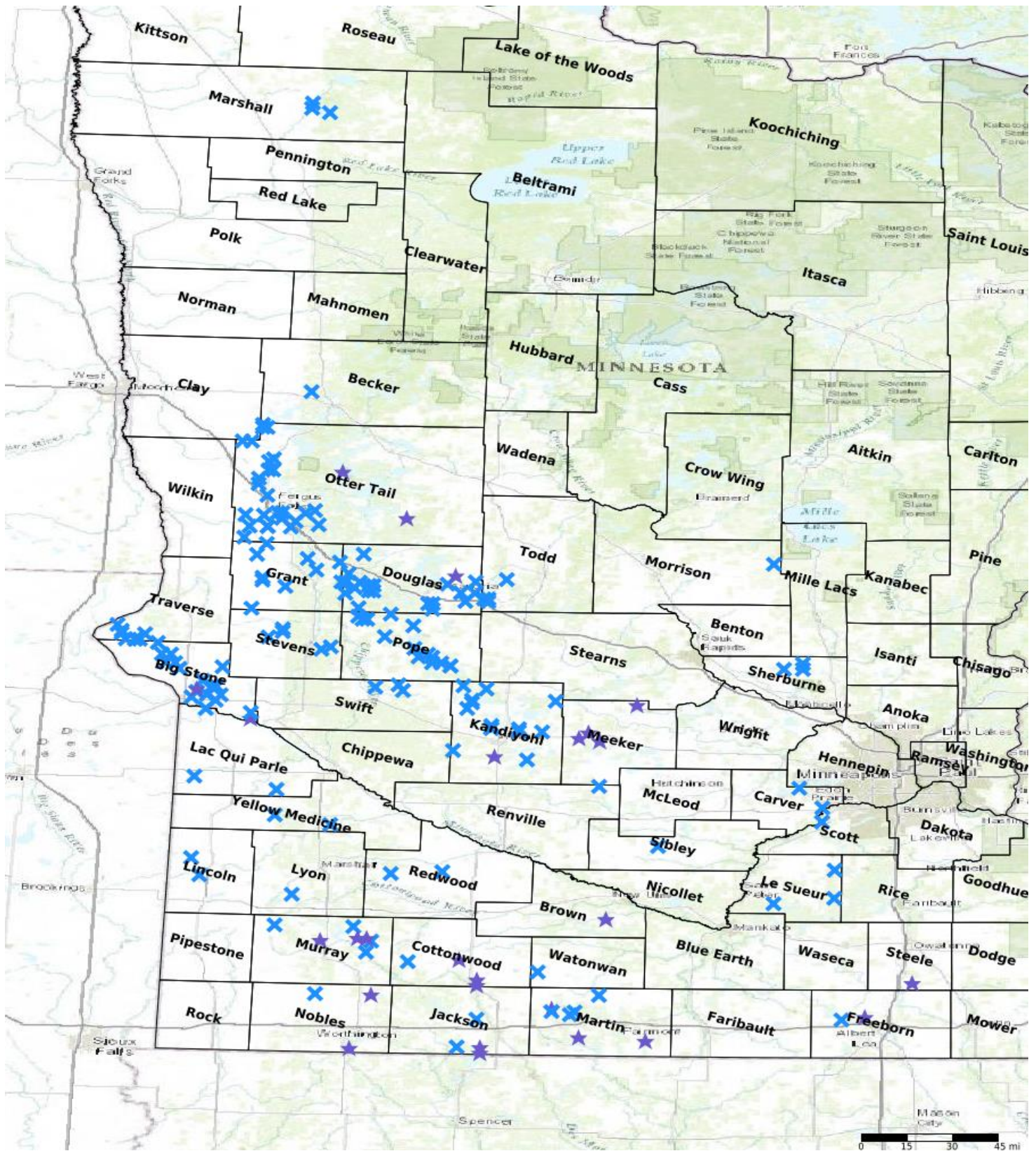
Harder Lake WPA	Cottonwood	10636216	1	\$5,000	Yes
Rolling Acres WPA	Douglas	12840231	6	-	Yes
Petersen WPA	Douglas	12836229	3	-	Yes
Hudson WPA	Douglas	12737229	8	-	Yes
Forada WPA	Douglas	12737218	3	-	Yes
Yanda-Paulzine WPA	Douglas	12737217	1	-	Yes
Rachel WPA	Douglas	12837211	5	-	Yes
J.I. case WPA	Douglas	12840225	5	-	Yes
Tower Hill WPA	Douglas	12839230	1	-	Yes
Klug WPA	Douglas	12840221	1	-	Yes
Banke Slough WPA	Douglas	12839218	3	-	Yes
Benson WPA	Douglas	12840207	1	\$15,000	Yes
Ash WPA	Douglas	12736209	1	\$15,000	Yes
USFWS Habitat Easement - Groth Restoration	Douglas	12936230	66	\$150,000	Yes
Tenhoff WPA	Douglas	12836202	2	\$22,000	Yes
Sellevoid WPA	Douglas	12840213	1	\$15,000	Yes
Schultz Lake WPA	Douglas	12836226	3	\$20,000	Yes
Fedje WPA	Douglas	12940229	2	\$15,000	Yes
Ernest Olson WPA	Douglas	13040223	2	-	Yes
Hegg Lake	Douglas	12740227	73	\$300,000	Yes
Urness WMA	Douglas	12840210	37	\$200,000	Yes
Halls Lake WPA	Freeborn	10322230	105	\$500,000	Yes
Two Island WPA	Freeborn	10322224	4	\$20,000	Yes
Mud Lake WPA	Grant	13044225	4	-	Yes
Pomme de Terre WPA	Grant	13042235	4	-	Yes
Green WPA	Grant	12843207	6	-	Yes
Blakesley WPA	Grant	12941219	1	\$10,000	Yes
Bah Lakes WPA	Grant	12941201	4	\$40,000	Yes
Bailey Slough WPA	Grant	12843206	8	-	Yes
Cheney Trust WPA	Grant	12744235	94	\$200,000	Yes
Spink WPA	Grant	12843224	5	-	Yes
Stony Brook WPA	Grant	13043205	6	-	Yes
Historical Society WPA	Grant	12841212	1	\$15,000	Yes
USFWS Easement - Gazda Wetland Restoration	Jackson	10135220	25	\$200,000	Yes
TBD WPA - Black Rock Farms	Jackson	10135232	50	\$300,000	Yes
Boot Lake	Jackson	10335231	155	\$500,000	Yes
Sangl WMA	Jackson	10136221	25	\$150,000	Yes
Henjum Lake WPA - Small Wetlands	Kandiyohi	12136222	10	\$100,000	Yes
Irving WPA - Small Wetlands	Kandiyohi	12133202	10	\$100,000	Yes
Whitefield WMA - Wetland Restorations	Kandiyohi	11835215	13	\$50,000	Yes
USFWS Easement - Hammerbeck Upland Enhancement	Kandiyohi	12235217	30	\$15,000	Yes
Burr Oak Lake WPA - Small Wetlands	Kandiyohi	12034233	10	\$100,000	Yes
Weber WPA - Small Wetlands	Kandiyohi	12035221	20	\$200,000	Yes
Arctander WPA - Small Wetlands	Kandiyohi	12136202	10	\$100,000	Yes
USFWS Easement - Block Wetland Enhancement	Kandiyohi	12034228	14	\$150,000	Yes
Uncle Matt's WPA	Kandiyohi	12033232	10	\$100,000	Yes
VJ Carlson FWS Easement Wetland Restoration	Kandiyohi	12035228	5	\$50,000	Yes
Randall WPA - Small Wetlands	Kandiyohi	12236209	5	\$50,000	Yes
Century WPA - Small Wetlands	Kandiyohi	12136211	10	\$100,000	Yes
Yarmon WPA	Kandiyohi	11834223	263	\$400,000	Yes
Raymond WPA - Small Wetlands	Kandiyohi	11836206	10	\$100,000	Yes
Weber WPA	Kandiyohi	12035228	79	\$300,000	Yes
Sweetwater WMA	Lac qui Parle	11746236	69	\$200,000	Yes
Big Stone NWR Pool 4/4A	Lac qui Parle	12145232	275	\$1,500,000	Yes
Wild Wings WMA	Lac qui Parle	11643223	73	\$250,000	Yes

Diamond Lake	Le Sueur	11023223	120	\$250,000	Yes
Lake Henry Enhancement	Le Sueur	11025234	396	\$100,000	Yes
Sanborn Lake WMA - Dietz Lake Enhancement	Le Sueur	11223235	73	\$300,000	Yes
Herschberger WMA - Curtis Lake Enhancement	Lincoln	11145230	176	\$500,000	Yes
Legacy WMA	Lincoln	11246226	10	\$50,000	Yes
Lyons WMA - Brown Marsh Enhancement	Lyon	11042228	70	\$300,000	Yes
Agassiz NWR - Mud Lake Main Agassiz Pool	Marshall	15641220	5,000	\$1,000,000	Yes
Agassiz NWR - Pool 8	Marshall	15642203	100	\$50,000	Yes
Agassiz NWR - Madsen Pool	Marshall	15642215	100	\$50,000	Yes
Gleam WMA	Martin	10431216	15	\$150,000	Yes
Sheik FWS Easement Wetland Restoration	Martin	10333214	10	\$75,000	Yes
East Chain WMA	Martin	10129206	5	\$50,000	Yes
Clam Lake	Martin	10332215	72	\$200,000	Yes
Rooney Run WMA - Round Lake Enhancement	Martin	10332221	45	\$200,000	Yes
Holmes Lake Restoration	Martin	10232235	100	\$750,000	Yes
Duck Lake Restoration	Martin	10333211	100	\$300,000	Yes
USFWS Easement - Trebil Wetland Restoration	Meeker	12032236	40	\$200,000	Yes
Clear Lake WPA	Meeker	12130210	10	\$75,000	Yes
East Hanson Lake Restoration	Meeker	11931217	100	\$500,000	Yes
USFWS Easement - Butler Lake Restoration	Meeker	11932210	65	\$400,000	Yes
Two Island Wetland Project - Mille Lacs Band Ojibwe	Morrison	04128214	100	\$230,000	Yes
Anderson - Tutt FWS Easement Lake Restoration	Murray	10843223	50	\$500,000	Yes
Buffalo Lake WMA Wetland Restoration	Murray	10739207	10	\$50,000	Yes
Mason WPA - Wetland Restoration	Murray	10741216	15	\$150,000	Yes
Slaughter Slough WPA	Murray	10740211	20	\$125,000	Yes
Dovray WPA	Murray	10739217	8	\$75,000	Yes
Shetek WMA - Robbins Slough Enhancement	Murray	10840222	245	\$350,000	Yes
Devils Run WPA	Murray	10639206	28	\$200,000	Yes
Lake Bella WPA	Nobles	10140227	1	\$5,000	Yes
Graham Lake WPA	Nobles	10439220	14	\$70,000	Yes
Bloom WPA	Nobles	10441220	50	\$300,000	Yes
Knobel Lake WPA	Otter Tail	13543229	3	-	Yes
Haugen WPA	Otter Tail	13243218	1	\$15,000	Yes
Headquarters WPA	Otter Tail	13242201	1	-	Yes
Mavis WPA	Otter Tail	13243211	1	\$10,000	Yes
Erhard's Grove WPA	Otter Tail	13543228	5	-	Yes
Stang Lake WPA	Otter Tail	13242210	5	-	Yes
Nicholson/Tenmile WPA	Otter Tail	13143205	3	\$35,000	Yes
Knollwood WPA	Otter Tail	13243223	3	\$15,000	Yes
Grady Mann WPA	Otter Tail	13144228	3	-	Yes
Julsrud WPA	Otter Tail	13644205	2	\$20,000	Yes
Backstrom WPA	Otter Tail	13543208	8	-	Yes
Hintermeister WPA	Otter Tail	13242229	2	\$15,000	Yes
Jorgenson WPA	Otter Tail	13144203	6	-	Yes
Busko WPA	Otter Tail	13143205	221	\$250,000	Yes
USFWS Habitat Easement - Stoering Restoration	Otter Tail	13541225	50	\$100,000	Yes
Wieggers WPA	Otter Tail	13343208	20	\$55,000	Yes
Townsend WPA	Otter Tail	13243210	2	\$20,000	Yes
USFWS Easement - Misegades Restoration	Otter Tail	13238217	27	\$200,000	Yes
Scribner WPA	Otter Tail	13444224	2	\$25,000	Yes
Pelican Valley WPA	Otter Tail	13543204	3	-	Yes
Tweeton WPA	Otter Tail	13743207	1	-	Yes
Nelson WPA	Otter Tail	13743206	1	-	Yes

Aaberg WPA	Otter Tail	13444212	1	\$15,000	Yes
Gardner WPA	Otter Tail	13644203	1	-	Yes
Ridgeway WPA	Otter Tail	13244216	15	\$50,000	Yes
Fitzgerald WPA	Otter Tail	13743208	2	-	Yes
PCA WPA	Otter Tail	13241231	3	-	Yes
Nicolholson WPA - Shallow Lake Enhancement	Otter Tail	13142206	100	\$250,000	Yes
Rosby Lake WPA	Pope	12640213	6	-	Yes
Wall WPA	Pope	12437218	9	-	Yes
Moen WPA	Pope	12640214	4	-	Yes
Ann Lake WPA	Pope	12638227	4	-	Yes
Jorgenson WPA	Pope	12639202	10	-	Yes
Stenson Lake WPA	Pope	12438223	4	-	Yes
Stenerson Lake WPA	Pope	12438203	13	-	Yes
Ouren WPA	Pope	12437232	5	-	Yes
Overby WPA	Pope	12437234	13	-	Yes
Stewart WPA	Pope	12539215	15	\$100,000	Yes
Nelson Lake WPA	Pope	12337201	8	-	Yes
USFWS Easement - BBB Farms Upland Enhancement	Pope	12437220	60	\$35,000	Yes
USFWS Easement - Sievers Upland Enhancement	Pope	12337201	63	\$35,000	Yes
Mattson WPA	Pope	12640210	7	-	Yes
Westline WMA	Redwood	11139213	200	\$200,000	Yes
Daubs Lake Enhancement	Redwood	11137211	175	\$250,000	Yes
Boon Lake Enhancement	Renville	11631205	858	\$500,000	Yes
MN Valley NWR - Louisville Swamp Enhancement	Scott	11423205	75	\$500,000	Yes
Sherburne NWR - Pool 31 Enhancement	Sherburne	03527228	30	\$250,000	Yes
Sherburne NWR - Iron Pool Enhancement	Sherburne	03527216	25	\$250,000	Yes
Sherburne NWR - West Carpenter Pool Enhancement	Sherburne	03528226	70	\$300,000	Yes
Indian Lake	Sibley	11329221	377	\$600,000	Yes
Straight River Marsh WPA	Steele	10520222	50	\$500,000	Yes
Smith WPA	Stevens	12543201	1	\$15,000	Yes
Bahr WPA	Stevens	12543212	1	\$10,000	Yes
Freeman WPA	Stevens	12543221	1	\$10,000	Yes
Long Lake WPA	Stevens	12441203	3	-	Yes
Edwards WPA	Stevens	12441208	3	-	Yes
Johnson Lake Enhancement	Swift	12239217	179	\$500,000	Yes
Svor WPA	Swift	12238220	20	\$60,000	Yes
Loen WPA - Small Wetlands	Swift	12238207	3	\$15,000	Yes
Geroy WPA	Todd	12935236	3	-	Yes
Faber WPA	Todd	12735206	3	-	Yes
Terfehr WPA	Todd	12735208	3	-	Yes
Sogge WPA	Todd	12735205	5	-	Yes
Murphy WPA	Traverse	12548236	1	-	Yes
Jenk WPA	Traverse	12548235	1	-	Yes
Diekmann WPA	Traverse	12548235	5	-	Yes
Robinhood WPA	Traverse	12548217	15	-	Yes
Mosquito Ranch WPA	Traverse	12548220	30	\$150,000	Yes
Lawrence WPA	Traverse	12547219	8	-	Yes
Gibson WPA	Traverse	12548233	1	-	Yes
Pederson WPA	Traverse	12548206	3	-	Yes
Sulem WMA	Watonwan	10533205	226	\$500,000	Yes
USFWS Easement - Coover Wetland Enhancement	Yellow Medicine	11443202	10	\$15,000	Yes
Spellman WMA - Miedd Lake	Yellow	11441223	50	\$100,000	Yes

	Medicine				
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Parcel Map



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