

Main Request for Funding Form

Lessard-Sams Outdoor Heritage Council Fiscal Year 2014 / ML 2013 Proposal

Program or Project Title: Accelerated Wetland and Shallow Lake Enhancement

Funds Requested: \$3,179,000

Manager's Name: Ricky Lien

Title: Wetland Habitat Supervisor

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Organization Web Site: www.mndnr.gov

County Locations: Aitkin, Becker, Benton, Big Stone, Freeborn, Jackson, Kittson, Lac Qui Parle, Le Sueur, Lincoln, Mille Lacs, Nicollet, Polk, Roseau, Todd, and Wilkin.

Ecological Planning Regions:

- Northern Forest
- Forest / Prairie Transition
- Prairie

Activity Type:

- Enhance

Priority Resources Addressed by Activity:

- Wetlands

Abstract

Many of Minnesota's wetlands have been lost and the remainder degraded. Eighteen-thousand acres of shallow lakes and wetlands, which provide critical habitat for each life stage of waterfowl and wetland wildlife, will be enhanced through pre-design, design, construction, and intensive management.

Activity Detail

Design and Scope of Work

Minnesota's "Long Range Duck Recovery Plan," released in 2006, identified a strategic 50-year vision to "restore, protect, and manage a landscape capable of supporting an average spring breeding population of one

million ducks and restoring the historically abundant spring and fall migration of waterfowl." A key component of this plan is the protection and management of 1,800 shallow lakes

High quality shallow lakes and wetlands have clear water and abundant rooted aquatic vegetation. Emergent aquatic plants such as rushes and wild rice provide protective cover from weather and predators and over-water nesting habitat, while submerged plants provide food in the form of seeds and tubers and critical habitat for aquatic invertebrates. Very shallow seasonal wetlands can be critical sources of invertebrates and nutritious plant seeds during spring, early summer, and fall, particularly for dabbling ducks.

The quality of shallow lakes and wetlands providing wildlife habitat has declined markedly due to landscape changes, increased runoff carrying sediment and nutrients, and invasive plant and fish species. An estimated 90% of Minnesota's prairie wetlands have been lost, along with more than 50% of our wetland resources statewide. Throughout the state, the remaining shallow lakes and wetlands provide the critical habitat for each life stage of waterfowl and other wetland wildlife. Unfortunately these benefits are too often compromised by degraded habitat quality due to excessive runoff and invasive plants and fish. Only about one prairie wetland in five exhibits good quality vegetation, while just under one-third provide good habitat for invertebrates. In the forest-prairie transition, nearly half of all wetlands provide good habitat for invertebrates. However, they suffer from higher rates of infestations of invasive species than do prairie wetlands.

The habitat quality of these shallow lakes and wetlands can be markedly improved by installing fish barriers where needed and aggressively managing water levels to meet specific habitat problems and recommended objectives. This proposal applies scientific assessment to diagnose specific habitat problems and recommend treatments (Pre-design), engineer design of dikes, water control structures, and fish barriers (Design), install the design elements (Construction), and intensify the application of management techniques (Management).

Specifically, design work will be completed for nine wetland and shallow lake enhancement projects. The DNR will complete construction for thirteen water control projects and Ducks Unlimited will serve as the construction deliverable partner for two priority fish barrier projects. Piscicide treatments will be used to eradicate rough fish populations at two shallow lakes. Additional intensive management will be applied to approximately twenty basins annually for four years. This management will include, but not be limited to, managing water levels, maintaining fish barriers, inducing winterkill of fish, controlling invasive plants and encouraging native plant assemblages. The shallow lakes and wetlands identified for enhancement in this proposal were proposed and ranked by DNR Area Wildlife Supervisors through their respective Regional Wildlife Managers. Program managers may add, delete, or substitute projects on the approved parcel list based upon need, readiness, cost, opportunity, and/or urgency, so long as the substitute parcel/project meets 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.

This proposal reflects the strategies of the 2006 DNR Duck Recovery Plan and the 2010 Shallow Lake Plan. These plans underwent substantial review by nearly all the major wetland wildlife conservation groups in Minnesota. Stakeholders have been supportive of the strategies outlined in the plans, although some have expressed frustration with long timelines.

Planning

MN State-wide Conservation Plan Priorities

- H4 Restore and protect shallow lakes

- H5 Restore land, wetlands and wetland-associated watersheds

Plans Addressed

- A Vision for Wildlife and Its Use -- Goals and Outcomes 2006-2012
- Ducks Unlimited Living Lakes Initiative
- Long Range Duck Recovery Plan
- Managing Minnesota's Shallow Lakes for Waterfowl and Wildlife
- Minnesota DNR Nongame Wildlife Plans
- Minnesota DNR Strategic Conservation Agenda
- Minnesota Prairie Conservation Plan
- National Audubon Society Top 20 Common Birds in Decline
- North American Waterbird Conservation Plan
- North American Waterfowl Management Plan
- Northern Plains Prairie Potholes Regional Shorebird Conservation Plan
- Outdoor Heritage Fund: A 25 Year Framework
- Partners in Flight Conservation Plans for States and Physiographic Regions
- State Comprehensive Outdoor Recreation Plan
- Tomorrow's Habitat for the Wild and Rare
- U.S. Prairie Pothole Joint Venture Plan
- Upper Mississippi River and Great Lakes Region Projects Joint Ventures Plan

LSOHC Statewide Priorities

- Produce multiple enduring conservation benefits
- Restore or enhance habitat on state-owned WMAs, AMAs, SNAs, and state forests
- Use a science-based strategic planning and evaluation model to guide protection, restoration and enhancement, similar to the United States Fish and Wildlife Service's Strategic Habitat Conservation model
- Address wildlife species of greatest conservation need, Minnesota County Biological Survey data, and rare, threatened and endangered species inventories in land and water decisions, as well as permanent solutions to aquatic invasive species
- Ensures activities for "protecting, restoring and enhancing" are coordinated among agencies, non profits and others while doing this important work
- Target unique Minnesota landscapes that have historical value to fish and wildlife

LSOHC Prairie Section Priorities

- Protect, enhance, or restore existing wetland/upland complexes, or convert agricultural lands to new wetland/upland habitat complexes
- Restore or enhance habitat on public lands
- Protect, restore, and enhance shallow lakes
- Protect, enhance, and restore migratory habitat for waterfowl and related species, so as to increase migratory and breeding success

LSOHC Forest Prairie Transition Section Priorities

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

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

LSOHC Northern Forest Section Priorities

- Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas

Relationship to Other Constitutional Funds

- Environmental and Natural Resource Trust Fund
- Clean Water Fund

Interest in Minnesota's wetland and shallow lake habitats has resulted in numerous initiatives with a variety of funding sources, including the Environmental and Natural Resource Trust Fund and Clean Water Fund. The work from this proposal will complement the goals of other funds, though project selection is based on wildlife benefits.

Accelerates or Supplements Current Efforts

The "Managing Minnesota's Shallow Lakes for Waterfowl and Wildlife" plan calls for the management and protection of 1,800 shallow lakes across the state for the benefit of waterfowl and wildlife. This work is needed, long overdue, and expensive. Only by obtaining funds from a variety of sources will the plan's goal be met within the plan timeframe. This proposed project supplements substantial expenditures and support by Game and Fish, Heritage Enhancement, Duck Stamp and Wild Rice funds to move Minnesota towards that goal.

Sustainability and Maintenance

The management of enhanced wetlands and shallow lakes once construction is completed will fall on existing staff of the Department of Natural Resources. These staff are funded through license fees and legislative appropriations. Periodic enhancements such as invasive species removal, supplemental vegetation planting, or water control structure installation, maintenance, or replacement, will be accomplished through annual funding requests to a variety of funding sources including, but not limited to, the Game and Fish Fund, bonding, gifts, the Environmental and Natural Resources Trust Fund, the Outdoor Heritage Fund, and federal sources such as North American Wetlands Conservation Act grants.

*Is the activity on permanently protected land and/or public waters per MS 103G.005, Subd. 15? - **Yes (WMA, AMA, Public Waters)***

Accomplishment Timeline

Activity	Approximate Date Completed
Complete engineering designs/specs for 9 new wetland and shallow lake enhancement projects	June, 2016
Complete construction of 13 new wetland and shallow lake water control projects	June, 2017
Complete construction (Ducks Unlimited) of 2 new fish barrier projects to enhance shallow lakes	June, 2017
Complete 2 piscicide treatments to eradicate invasive rough-fish populations from shallow lakes	June, 2016

Outcomes

Programs in prairie region

- Protected, restored, and enhanced shallow lakes and wetlands

Budget Spreadsheet

Total Amount of Request: \$3,179,000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Cash Leverage	Cash Leverage Source	Total
Personnel	\$45,000	\$20,000	-	\$65,000
Contracts	\$2,512,000	\$0	-	\$2,512,000
Fee Acquisition w/ PILT	\$0	\$0	-	\$0
Fee Acquisition w/o PILT	\$0	\$0	-	\$0
Easement Acquisition	\$0	\$0	-	\$0
Easement Stewardship	\$0	\$0	-	\$0
Travel (in-state)	\$25,000	\$0	-	\$25,000
Professional Services	\$307,000	\$0	-	\$307,000
Direct Support Services	\$215,000	\$0	-	\$215,000
DNR Land Acquisition Costs	\$0	\$0	-	\$0
Capital Equipment	\$0	\$0	-	\$0
Other Equipment/Tools	\$5,000	\$0	-	\$5,000
Supplies/Materials	\$70,000	\$0	-	\$70,000
DNR IDP	\$0	\$0	-	\$0
Total	\$3,179,000	\$20,000	-	\$3,199,000

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Cash Leverage	Cash Leverage Source	Total
DU Bioengineering Staff	0.70	2.00	\$45,000	\$20,000	Ducks Unlimited	\$65,000
Total	0.70	2.00	\$45,000	\$20,000	-	\$65,000

Capital Equipment

Item Name	LSOHC Request	Anticipated Cash Leverage	Cash Leverage Source	Total
Total	\$0	\$0	-	\$0

Budget and Cash Leverage by Partnership

Budget Name	Partnership	LSOHC Request	Anticipated Cash Leverage	Cash Leverage Source	Total
Personnel	Ducks Unlimited	\$45,000	\$20,000	-	\$65,000
Contracts	Ducks Unlimited	\$500,000	\$0	-	\$500,000
Fee Acquisition w/ PILT	Ducks Unlimited	\$0	\$0	-	\$0
Fee Acquisition w/o PILT	Ducks Unlimited	\$0	\$0	-	\$0
Easement Acquisition	Ducks Unlimited	\$0	\$0	-	\$0
Easement Stewardship	Ducks Unlimited	\$0	\$0	-	\$0
Travel (in-state)	Ducks Unlimited	\$10,000	\$0	-	\$10,000
Professional Services	Ducks Unlimited	\$12,000	\$0	-	\$12,000
Direct Support Services	Ducks Unlimited	\$0	\$0	-	\$0
DNR Land Acquisition Costs	Ducks Unlimited	\$0	\$0	-	\$0
Capital Equipment	Ducks Unlimited	\$0	\$0	-	\$0
Other Equipment/Tools	Ducks Unlimited	\$0	\$0	-	\$0
Supplies/Materials	Ducks Unlimited	\$0	\$0	-	\$0
DNR IDP	Ducks Unlimited	\$0	\$0	-	\$0
Total	-	\$567,000	\$20,000	-	\$587,000

Budget Name	Partnership	LSOHC Request	Anticipated Cash Leverage	Cash Leverage Source	Total
Personnel	DNR	\$0	\$0	-	\$0
Contracts	DNR	\$2,012,000	\$0	-	\$2,012,000
Fee Acquisition w/ PILT	DNR	\$0	\$0	-	\$0
Fee Acquisition w/o PILT	DNR	\$0	\$0	-	\$0
Easement Acquisition	DNR	\$0	\$0	-	\$0
Easement Stewardship	DNR	\$0	\$0	-	\$0
Travel (in-state)	DNR	\$15,000	\$0	-	\$15,000
Professional Services	DNR	\$295,000	\$0	-	\$295,000
Direct Support Services	DNR	\$215,000	\$0	-	\$215,000
DNR Land Acquisition Costs	DNR	\$0	\$0	-	\$0
Capital Equipment	DNR	\$0	\$0	-	\$0
Other Equipment/Tools	DNR	\$5,000	\$0	-	\$5,000
Supplies/Materials	DNR	\$70,000	\$0	-	\$70,000
DNR IDP	DNR	\$0	\$0	-	\$0
Total	-	\$2,612,000	\$0	-	\$2,612,000

Output Tables

Table 1. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	0	0
Enhance	18,406	0	0	0	18,406
Total	18,406	0	0	0	18,406

Table 2. Total Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$3,179,000	\$0	\$0	\$0	\$3,179,000
Total	\$3,179,000	\$0	\$0	\$0	\$3,179,000

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0
Enhance	0	1,299	0	13,861	3,246	18,406
Total	0	1,299	0	13,861	3,246	18,406

Table 4. Total Requested Funding within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$388,700	\$0	\$1,975,800	\$814,500	\$3,179,000
Total	\$0	\$388,700	\$0	\$1,975,800	\$814,500	\$3,179,000

Table 5. Target Lake/Stream/River Miles

0 miles

Parcel List

Section 1 - Restore / Enhance Parcel List

Aitkin

Name	TRDS	Acres	Est Cost	Existing Protection?
Cornish Flowage - WCS	05123223	300	\$223,000	Yes

Becker

Name	TRDS	Acres	Est Cost	Existing Protection?
Detroit Lakes Area Wetlands	14242212	8	\$27,500	Yes

Benton

Name	TRDS	Acres	Est Cost	Existing Protection?
Graham WMA - WCS	03830201	140	\$173,000	Yes

Big Stone

Name	TRDS	Acres	Est Cost	Existing Protection?
Otrey-Kufrin WMA - WCS	12245222	110	\$25,000	Yes
Stony Run Ck. - Fish Barrier	12246236	2,200	\$355,000	Yes

Freeborn

Name	TRDS	Acres	Est Cost	Existing Protection?
Shell Rock WMA - Rotenone	10120217	650	\$70,000	Yes
State Line Lake WMA - Rotenone	11022233	472	\$100,000	Yes

Jackson

Name	TRDS	Acres	Est Cost	Existing Protection?
Sioux Valley WMA - WCS	10137228	130	\$15,000	Yes

Kittson

Name	TRDS	Acres	Est Cost	Existing Protection?
Joe River WMA - WCS	16449234	47	\$100,300	Yes

Lac Qui Parle

Name	TRDS	Acres	Est Cost	Existing Protection?
Sweetwater WMA - WCS	11746236	66	\$25,000	Yes
Wild Wings WMA - WCS	11643223	75	\$25,000	Yes

Le Sueur

Name	TRDS	Acres	Est Cost	Existing Protection?
Horseshoe AMA Wetlands	10923212	3	\$61,000	Yes

Lincoln

Name	TRDS	Acres	Est Cost	Existing Protection?
Blue Wing WMA - WCS	11246236	21	\$80,300	Yes
Tyler WMA - WCS	10944209	300	\$100,000	Yes

Mille Lacs

Name	TRDS	Acres	Est Cost	Existing Protection?
Mille Lacs MWA - MSUs	04026216	46	\$45,000	Yes
Mille Lacs WMA HQ - WCS	04026216	2,900	\$294,000	Yes

Nicollet

Name	TRDS	Acres	Est Cost	Existing Protection?
Middle Lake WMA - MSU	11028234	34	\$10,000	Yes
Swan Lake WMA - Fish Barrier	10928206	10,000	\$210,000	No

Polk

Name	TRDS	Acres	Est Cost	Existing Protection?
Hovland WMA - WCS	14740227	145	\$68,000	Yes

Roseau

Name	TRDS	Acres	Est Cost	Existing Protection?
Roseau WMA Pool 1 W - WCS	16342209	1,150	\$201,000	Yes

Todd

Name	TRDS	Acres	Est Cost	Existing Protection?
Aurzada WMA - WCS	12735208	6	\$15,000	Yes
Hartford WMA - WCS	13033224	2	\$68,200	Yes
Quistorf WMA - WCS	12735204	5	\$15,000	Yes
Ruff-Nik WMA - WCS	13132225	27	\$15,000	Yes
Spohn WMA - WCS	12735204	2	\$15,000	Yes

Wilkin

Name	TRDS	Acres	Est Cost	Existing Protection?
Manston WMA - MSU	13546230	160	\$500,500	Yes

Section 2 - Protect Parcel List

No parcels with an activity type protect.

Section 2a - Protect Parcel with Bldgs

No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.