Request for Funding

Lessard-Sams Outdoor Heritage Council
Fiscal Year 2015 / ML 2014

Program or Project Title: Living Shallow Lakes & Wetlands Initiative Phase IV

Funds Requested: $6,000,000

Manager's Name: Jon Schneider
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County Locations: Big Stone, Carver, Grant, Jackson, Kandiyohi, Le Sueur, Lyon, Otter Tail, Pope, Redwood, Stearns, Stevens, Swift, and Wright.

Ecological Planning Regions:

- Forest / Prairie Transition
- Prairie
- Metro / Urban

Activity Type:

- Restore
- Enhance

Priority Resources Addressed by Activity:

- Wetlands

Abstract:

Phase 4 of our ongoing Living Lakes program will enhance or restore 4,000 acres of shallow lakes and wetlands for waterfowl in the Prairie, Transition, and Metro Sections in partnership with the Minnesota DNR and U.S. Fish & Wildlife Service.

Design and Scope of Work:

Minnesota has lost approximately 90% of our prairie wetlands, and many wetlands in other parts of the state, to drainage. The shallow lakes and large marshes that remain are often those that were too deep to drain years ago, and they now function as the core of Minnesota's remaining waterfowl habitat complexes. However, these remaining large wetlands now receive excessive water and nutrient runoff from a highly interconnected, drained landscape through which invasive fish have easy access. As a result, many of our remaining wetland and shallow lake basins are turbid and degraded due to high, stable water levels in which nutrients collect, carp and other invasive fish proliferate, and aquatic ecology functions stagnate. The result is a lack of aquatic plants and invertebrates required to sustain migrating and breeding waterfowl, especially those species such as diving ducks that exclusively rely on aquatic plant and invertebrate foods within wetlands and shallow lakes to survive.

As a result, ducks migrating through Minnesota on their way north in spring find sparse aquatic food resources, much to their detriment when they stop to breed further north due to the importance of nutrient reserves

required for egg laying. Those waterfowl that remain here to breed encounter poor brood-rearing habitat, as few shallow lakes and marshes here have high quality wetland habitat with abundant aquatic plants and invertebrate food resources on which young ducks rely. These factors have contributed to a decline in Minnesota's diverse waterfowl resources and, unfortunately, a decline in Minnesota's rich waterfowling traditions.

To remedy this situation, Ducks Unlimited requests support for our ongoing "Living Lakes Initiative" to continue assisting our Minnesota DNR and U.S. Fish & Wildlife Service conservation partners to enhance, restore, and protect Minnesota's shallow lakes and wetlands. This Phase 4 program funding request will support Ducks Unlimited bio-engineering staff that work with these agencies to assess, design, and construct water control structures and fish barriers to improve wetlands on public land. DU biologists will work closely with Minnesota DNR Shallow Lakes Program biologists to assess wetland conditions and identify possible management solutions. DU biologists and engineers will survey, design, and construct the infrastructure necessary to actively manage public water wetland water levels. Funding in this request will also support ongoing shallow lake technical assistance from DU biologists and engineers to assess, survey, and design future projects for implementation under future OHF appropriations for this ongoing, programmatic conservation initiative.

Most enhancement work will occur in the Prairie Section and will support the state's Prairie Plan, but several projects will be designed and constructed in the Metro and Transition Sections too. Structures are used by agency managers to simulate natural temporary drought cycles in shallow lakes and wetlands that rejuvenate the aquatic ecological process that produce abundant aquatic plants and invertebrates for waterfowl and other wetland wildlife. These structures last for 30 or more years and are generally used by agency staff every 5-7 years to conduct periodic temporary draw-downs that are key to enhancing and maintaining highly productive wetlands. During draw-downs, mudflat conditions will provide critical habitat for migrating shorebirds, and shallow emergent marshes resulting from draw-downs will benefit many wading bird and tern species too. Importantly, DU will also design and restore small wetlands on public and other protected land near shallow lakes when opportunities to do so arise. Shallow lakes are selected for enhancement by DNR and FWS managers in consultation with DU field biologists, and generally enjoy strong support from the public for improvement. Minnesota DNR holds public meetings to share information on current conditions and management plans for shallow lakes designated for wildlife management purposes.

Every statewide conservation plan recognizes the need for improving and protecting Minnesota's shallow lakes and associated wetlands for optimal wildlife habitat. The Minnesota DNR's *Duck Recovery Plan* is the most specific, calling for the active management of 1,800 shallow lakes and adding 64,000 wetlands to Minnesota's landscape. DU's *Living Lakes Initiative* supports this plan through a goal of improving 300 Minnesota shallow lakes in 10 years. Shallow lakes and wetlands are identified as critical habitat for several "Species of Greatest Conservation Need" listed in Minnesota's "Tomorrow's Habitat for the Wild & Rare: An Action Plan for Minnesota Wildlife", including lesser scaup, northern pintail, and trumpeter swan.

Importantly, this funding request will enable Ducks Unlimited's Living Lakes Initiative to directly address Minnesota's Statewide Conservation & Preservation Plan Habitat Recommendations #4 and #5 on pages 78 and 80, respectively, which calls for the restoration and protection of shallow lakes (page 78) and the restoration of land, wetlands, and watersheds (page 80).

Finally, the North American Waterfowl Management Plan's Prairie Pothole Joint Venture prioritizes the restoration and management of wetlands and shallow lakes through goals and objectives for improved brood-rearing and migration habitat for ducks. Many of the shallow lakes and wetlands prioritized for enhancement by DU are located within wetland habitat complexes identified by the US Fish & Wildlife Service's Strategic Habitat Conservation model and are high priority basins for both Service and Minnesota DNR field managers. Shallow lakes and wetlands which undergo temporary water level draw-downs will provide excellent mudflat habitat for shorebirds and excellent shallow water and emergent marsh habitat for non-game wading birds and terns as called for by national and regional shore and wading bird conservation plans, in addition to improving waterfowl habitat. DU shallow lake and wetland enhancement work is performed in close coordination and collaboration with either the Minnesota DNR or U.S. Fish & Wildlife Service, and these agencies assume future management and operation of DU engineered water control structures.

Planning

MN State-wide Conservation Plan Priorities:

- H4 Restore and protect shallow lakes

- H5 Restore land, wetlands and wetland-associated watersheds
- H7 Keep water on the landscape

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 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. Fish and Wildlife Service Strategic Habitat Conservation Model
- U.S. Prairie Pothole Joint Venture Plan
- Upper Mississippi River and Great Lakes Region Projects Joint Ventures Plan

LSOHC Statewide Priorities:

- Address Minnesota landscapes that have historical value to fish and wildlife, 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 long-term or permanent solutions to aquatic invasive species
- Are ongoing, successful, transparent and accountable programs addressing actions and targets of one or more of the ecological sections
- Attempts to ensure conservation benefits are broadly distributed across the LSOHC sections
- Ensures activities for "protecting, restoring and enhancing" are coordinated among agencies, non profits and others while doing this important work; provides the most cost-effective use of financial resources; and where possible takes into consideration the value of local outreach, education, and community engagement to sustain project outcomes
- Leverage effort and/or other funds to supplement any OHF appropriation
- Produce multiple enduring conservation benefits
- Provide Minnesotans with greater public access to outdoor environments with hunting, fishing and other outdoor recreation opportunities
- Restore or enhance habitat on permanently protected land
- 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

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 Metro Urban Section Priorities:

- No Metro Urban Priorities Listed

Relationship to Other Constitutional Funds:

- No Relationships Listed

Accelerates or Supplements Current Efforts:

Outdoor Heritage Fund grants supplement the DU conservation budget and allows DU to continue accelerated and expanded shallow lake and wetland conservation work in Minnesota that simply would not otherwise be possible with available DU funding. Because Outdoor Heritage Funds do not fully reimburse DU for all our expense associated with these projects, funding for this request will leverage DU funding to fully pay for more wetland projects and technical assistance than would otherwise be feasible within our limited annual non-profit budget comprised of private donations. DU uses our limited private funding to leverage state and federal grants to implement wetland projects on a larger scale. Federal North American Wetlands Conservation Act (NAWCA) grant funds will be requested to augment state and private funding when opportunities to develop and submit competitive NAWCA grant proposals arise.

Sustainability and Maintenance:

Enhancement projects funded through this request will be managed and maintained by Minnesota DNR and U.S. Fish & Wildlife Service field staff currently responsible for managing and maintaining those public areas and public water resources. Minnesota DNR often uses state duck stamp funds to pay for annual wetland and shallow lake management and maintenance expense. The Service receives annual federal appropriations for wetland management activities. Both state and federal conservation agency partners are committed to maintaining and managing the wetland habitat improvements achieved through this cooperative bio-engineering enhancment and restoration effort.

Permanent Protection:

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

Accomplishment Timeline

Activity	Approximate Date Completed
Enhance or restore 4,000 acres of public water shallow lakes and wetlands	June 30, 2017

Outcomes

Programs in forest-prairie transition region:

- Improved aquatic habitat vegetation *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers.*
- Protected, restored, and enhanced nesting and migratory habitat for waterfowl, upland birds, and species of greatest conservation need *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers.*
- Wetland and upland complexes will consist of native prairies, restored prairies, quality grasslands, and restored shallow lakes and wetlands *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife*

managers.

- Increased waterfowl and upland bird migratory and breeding success *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers.*
- Remnant native prairies are part of large complexes of restored prairies, grasslands, and large and small wetlands *Wetlands restored by DU are on public land owned and managed by Minnesota DNR or U.S. Fish & Wildlife Service and managed as part of prairie/wetland complexes.*

Programs in metropolitan urbanizing region:

- Improved aquatic habitat indicators *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers, and DNR field biologists monitor waterfowl usage.*
- Game lakes are significant contributors of waterfowl, due to efforts to protect uplands adjacent to game lakes *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers, and DNR field biologists monitor waterfowl usage.*

Programs in prairie region:

- Improved condition of habitat on public lands *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers.*
- Protected, restored, and enhanced shallow lakes and wetlands *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers, and DNR field biologists monitor waterfowl usage.*
- Increased wildlife productivity *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers, and DNR field biologists monitor waterfowl usage.*
- Improve aquatic vegetation *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers.*
- Enhanced shallow lake productivity *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers.*
- Protected, restored, and enhanced habitat for migratory and unique Minnesota species *Minnesota DNR Shallow Lakes Program conducts periodic assessment surveys to document pre/post project conditions in shallow lakes as requested by DNR area wildlife managers, and DNR field biologists monitor waterfowl usage.*

Budget Spreadsheet

Total Amount of Request: $6,000,000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	$800,000	$400,000		$1,200,000
Contracts	$5,000,000	$0		$5,000,000
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	$90,000	$10,000		$100,000
Professional Services	$90,000	$0		$90,000
Direct Support Services	$0	$0		$0
DNR Land Acquisition Costs	$0	$0		$0
Capital Equipment	$0	$0		$0
Other Equipment/Tools	$10,000	$0		$10,000
Supplies/Materials	$10,000	$0		$10,000
DNR IDP	$0	$0		$0
Total	$6,000,000	$410,000	-	$6,410,000

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
DU Grant Program Manager	0.50	3.00	$90,000	$45,000	Private Source	$135,000
DU Bio-engineering Staff	3.50	3.00	$710,000	$355,000	Private Source	$1,065,000
Total	4.00	6.00	$800,000	$400,000	-	$1,200,000

Output Tables

Table 1. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	100	0	0	0	100
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	3,900	0	0	0	3,900
Total	4,000	0	0	0	4,000

Table 2. Total Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	$500,000	$0	$0	$0	$500,000
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	$5,500,000	$0	$0	$0	$5,500,000
Total	$6,000,000	$0	$0	$0	$6,000,000

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	100	0	100
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	600	40	0	3,260	0	3,900
Total	600	40	0	3,360	0	4,000

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	$500,000	$250,000	$0	$5,250,000	$0	$6,000,000
Total	$500,000	$250,000	$0	$5,250,000	$0	$6,000,000

Table 5. Target Lake/Stream/River Miles

0 miles

Parcel List

Section 1 - Restore / Enhance Parcel List

Big Stone

Name	TRDS	Acres	Est Cost	Existing Protection?
Otrey WMA	12245222	115	$175,000	Yes

Carver

Name	TRDS	Acres	Est Cost	Existing Protection?
Tiger Lake	11526209	550	$300,000	Yes

Grant

Name	TRDS	Acres	Est Cost	Existing Protection?
Cheney Trust WPA	12744235	100	$225,000	Yes
Delong WPA	12743234	13	$75,000	Yes
Demaree WPA	13043214	80	$375,000	Yes
Mud Lake WPA	13044236	437	$225,000	Yes
Redhead Slough WPA	12941209	170	$200,000	Yes

Jackson

Name	TRDS	Acres	Est Cost	Existing Protection?
Christiania WPA	10435210	25	$200,000	Yes
Sioux Valley WMA	10137226	130	$150,000	Yes

Kandiyohi

Name	TRDS	Acres	Est Cost	Existing Protection?
Hubbard-Schultz-Wheeler Lakes	12033226	462	$1,020,000	Yes

Le Sueur

Name	TRDS	Acres	Est Cost	Existing Protection?
Sanborn Lake	11223236	448	$300,000	Yes

Lyon

Name	TRDS	Acres	Est Cost	Existing Protection?
Peterson WPA	10942230	75	$300,000	Yes
SE Clifton WMA	11140230	110	$125,000	Yes

Otter Tail

Name	TRDS	Acres	Est Cost	Existing Protection?
Erlandson WMA Mud Lake	13143224	437	$225,000	Yes

Pope

Name	TRDS	Acres	Est Cost	Existing Protection?
Simon Lake	12337233	569	$200,000	Yes

Redwood

Name	TRDS	Acres	Est Cost	Existing Protection?
Westline WMA	11139213	218	$200,000	Yes

Stearns

Name	TRDS	Acres	Est Cost	Existing Protection?
Cedar Lake	12634210	243	$125,000	Yes
McCormic Lake	12634213	211	$125,000	Yes

Stevens

Name	TRDS	Acres	Est Cost	Existing Protection?
Everglade WMA Mud Lake	12644236	500	$250,000	Yes
Long Lake WPA	12441209	25	$100,000	Yes

Swift

Name	TRDS	Acres	Est Cost	Existing Protection?
Lake Hassel	12239209	706	$250,000	Yes

Wright

Name	TRDS	Acres	Est Cost	Existing Protection?
Victor WPA	11827207	50	$200,000	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.