

Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2012 Accomplishment Plan

Date: October 24, 2011

Program Title: Living Shallow Lakes & Wetlands Initiative

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Funds Recommended: \$4,490,000

Legislative Citation: ML 2012, Ch. X, Art. X, Sec. X, Subd. 4 (d): *(to be completed when signed by Governor)*

Abstract:

This ongoing program will restore and enhance shallow lakes and wetlands by improving aquatic plant abundance and water clarity in partnership with the Minnesota DNR and U.S. Fish & Wildlife Service.

Program Narrative

Design and Scope of Work

Minnesota has lost approximately 90% of our prairie wetlands, and many wetlands in other ecoregions of the state, to drainage. The shallow lakes and large marshes that remain now serve as the core of Minnesota's remaining waterfowl habitat complexes, and are often those basins that were too deep to drain. These remaining wetlands now receive excessive water and nutrient runoff from a highly altered and intensively drained landscape, and are easily accessed by invasive fish such as common carp. As a result, many basins are now turbid and degraded due to high, stable water levels that allow carp and other invasive fish to proliferate and aquatic ecology to stagnate. The results is a lack of aquatic plants and invertebrates required to sustain migrating and breeding waterfowl, especially those species that rely on aquatic foods exclusively such as diving ducks.

As a result, ducks migrating through Minnesota on their way north to breed in spring find sparse aquatic food resources, much to their detriment further north, and also again in the fall when their passage through Minnesota appears briefer each year. Those waterfowl that remain here to breed find poor brood-rearing habitat, as shallow lakes and marshes have a paucity of 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, this grant will support Ducks Unlimited's "Living Lakes Initiative" to assist the Minnesota DNR, U.S. Fish & Wildlife Service, and other conservation partners to enhance and restore Minnesota's shallow lakes and wetlands. This funding will support Ducks Unlimited bio-engineering staff that work with these agencies to assess, design, and construct water control structures and fish barriers. 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 for state and federal agency staff to actively manage 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.

Most enhancement work will occur in the prairie. Structures are used by agency managers to simulate natural temporary drought cycles in shallow lakes and wetlands that rejuvenate the aquatic ecological process that produces abundant aquatic plants and invertebrates. These structures last for 30 or more years and are generally use by agency staff every 5-7 years to conduct periodic temporary draw-downs that are key to enhancing and maintaining highly productive wetlands. Importantly, DU will also design and restore small wetlands on public and other protected land near shallow lakes. Shallow lakes are selected for enhancement by DNR and FWS managers, and generally enjoy strong support from the public for improvement. The Minnesota DNR holds public meetings to share information on the current condition and management plan for shallow lakes designated for wildlife management purposes.

Planning

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 restored 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, Ducks Unlimited's Living Lakes Initiative 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). This program addresses the LSOHC priorities of wetland and shallow lake restoration and enhancement in the Prairie and Forest-Prairie Transition sections. 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. 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 all future management and operation responsibilities for water control structures designed and installed by DU.

Relationship to Other Constitutional Funds

This request complements previous DU conservation work funded in the past by the Environment and Natural Resources Trust Fund. Funding for shallow lake and wetland enhancements and restorations is no longer funded by the Trust Fund, and although additional limited funding for DU conservation easements was appropriated in 2011. No funding from the Clean Water Fund or Parks and Trails Fund has been directly requested or received by DU.

Relationship to Current Organizational Budget

Funding from the Outdoor Heritage Fund supplements traditional DU conservation budgets and allows DU to continue to accelerate shallow lake and wetland conservation work in Minnesota that simply would otherwise not be possible through existing DU funding. Since Outdoor Heritage Funds do not fully reimburse DU for all our expense associated with these projects, OHF funding leverages DU funding to fully pay for more wetland projects and technical assistance than would otherwise be feasible within our limited non-profit budget.

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 areas. Minnesota DNR often uses state duck stamp fund to pay for annual wetland and shallow lake management and maintenance expense.

Outcomes

This program will restore at least 100 wetland acres in 5 or more basins on public land and enhance at least 1,400 acres of wetlands and shallow lakes in 13 or more basins, mostly in the Prairie Section. This grant also supports ongoing shallow lake technical assistance from DU biologists and engineers to assess, survey, and design future projects for implementation under future OHF appropriations to ensure future wetland restoration and shallow lake enhancement projects are possible for the OHF to fund. The outcomes will be achieving 100 acres of restored wetlands in 5 or more basins towards the state's Duck Recovery Plan goal of 64,000 wetland basins restored, and the enhancement of at least 1,400 acres in 13 or more basins towards the state's Duck Recovery Plan goal of 1,800 managed shallow lakes. Shallow lake assessments of individual basin condition in terms of improvements in aquatic plant abundance and water clarity as compared to pre-project condition will also be conducted over time by DNR's shallow lakes program after basins are actively managed using water control structures designed and constructed through this grant, with specific results available in future years after this grant.

Accomplishment Timeline

Activity	Milestone	Date completed
Wetland Restoration	Complete 100 acres of restoration in 5+ basins	June 30, 2014
Shallow Lake Enhancement	Construct water structures on 13 basins & 1,4000 ac	June 30, 2014
Bio-engineering Designs	Design 20 new enhancement or restoration projects	June 30, 2014

Attachments (*on spreadsheet workbook – 3 separate tabs*):

- A. Budget
- B. Proposed Outcome Tables
- C. Parcel List

No Map is needed for the accomplishment plan

Attachment A. Budget Spreadsheet

Name of Proposal:	Living Shallow Lakes & Wetlands Initiative
Legislative Citation:	
Date:	24-Oct-11

[Link HERE to definitions of the budget items below.](#)

Total Amount of Request \$ 4,490,000 *From page 1 on the funding form.*

Personnel

Position breakdown here	FTE	Over # of years	Anticipated Cash		Cash Leverage Source	Total
			LSOHC Request	Leverage		
<i>Manager of Programs</i>	0.3	2	\$ 60,000	\$ 18,000	private	\$ 78,000
<i>Field Biologists</i>	2	2	\$ 260,000	\$ 78,000	private	\$ 338,000
<i>Engineering Technician</i>	1	2	\$ 140,000	\$ 42,000	private	\$ 182,000
<i>Surveyor/Construction Mgr.</i>	2	2	\$ 275,000	\$ 82,500	private	\$ 357,500
<i>Professional Engineers</i>	2	2	\$ 390,000	\$ 117,000	private	\$ 507,000
						\$ -
						\$ -
Total	7.3		\$ 1,125,000	\$ 337,500	\$ -	\$ 1,462,500

Budget and Cash Leverage *(All your LSOHC Request Funds must be direct to and necessary for program outcomes.)*

Please describe how you intend to spend the requested funds.

Budget Item	Anticipated Cash		Cash Leverage Source	Total
	LSOHC Request	Leverage		
Personnel - <i>auto entered from above</i>	\$ 1,125,000	\$ 337,500	\$ -	\$ 1,462,500
Contracts	\$ 3,000,000	\$ 100,000	private	\$ 3,100,000
Fee Acquisition w/ PILT <i>(breakout in table 7)</i>				\$ -
Fee Acquisition w/o PILT <i>(breakout in table 7)</i>				\$ -
Easement Acquisition				\$ -
Easement Stewardship			private	\$ -
Travel (in-state)	\$ 62,000	\$ 2,000	private	\$ 64,000
Professional Services	\$ 70,000	\$ 5,000	private	\$ 75,000
Direct Support Services				\$ -
DNR Land Acquisition Costs				\$ -
Other				\$ 251,600
Capital Equipment <i>(auto entered from below)</i>	\$ 170,000	\$ 13,600	private	\$ 183,600
Other Equipment/Tools	\$ 15,000	\$ 1,000	private	\$ 16,000
Supplies/Materials	\$ 48,000	\$ 4,000	private	\$ 52,000
	\$ 4,490,000	\$ 463,100	\$ -	\$ 4,953,100

Capital Equipment *(single items over \$10,000 - auto entered into table above)*

Item Name	LSOHC Request	Leverage
<i>Portable Water Pump with Trailer, Diesel Tank, etc.</i>	110,000	8,800
<i>GPS Survey Equipment</i>	30,000	2,400
<i>Track Vehicle with Trailer for topographic surveying of wetlands</i>	15,000	1,200
<i>Boat with Mud Motor and Trailer for surveying shallow lake outlets</i>	15,000	1,200
Total	170,000	13,600

Attachment B. Output Tables

Name of Proposal:	Living Shallow Lakes & Wetlands Initiative
Legislative Citation:	
Date:	24-Oct-11

Table 1 and Table 3 column totals should be the same AND Table 2 and Table 4 column totals should be the same

If your project has lakes or shoreline miles instead of land acres, convert miles to acres for Tables 1 and 3 using the following conversion:

Lakeshore = 6 acres per lakeshore mile / Stream & River Shore = 12 acres per linear mile, if both sides

Table 1. Acres by Resource Type

Describe the scope of the project in acres (use conversion above if needed)

	Wetlands	Prairies	Forest	Habitats	Total
Restore	100				100
Protect Fee					0
Protect Easement					0
Protect Other					0
Enhance	1400				1400
Total	1500	0	0	0	0

Total Acres (sum of Total column)
Total Acres (sum of Total row)

1500
1500

These two cells should be the same figure.

Table 2. Total Requested Funding by Resource Type

	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$ 500,000				\$ 500,000
Protect Fee					\$ -
Protect Easement					\$ -
Protect Other					\$ -
Enhance	\$ 3,990,000				\$ 3,990,000
Total	\$ 4,490,000	\$ -	\$ -	\$ -	-

Total Dollars (sum of Total column)
Total Dollars (sum of Total row)

\$ 4,490,000
\$ 4,490,000

These two cells should be the same figure.

Check to make sure this amount is the same as the Funding Request Amount on page 1 of Main Funding Form.

Table 3. Acres within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore				100		100
Protect Fee						0
Protect Easement						0
Protect Other						0
Enhance	149			867	384	1400
Total	149	0	0	967	384	1500

Total Acres (sum of Total column)
Total Acres (sum of Total row)
Total Acres from Table 1.

1500
1500
1500

These three cells should be the same figure.

Attachment B. Output Tables

Table 4. Total Requested Funding within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore				\$ 500,000		\$ 500,000
Protect Fee						
Protect Easement						
Protect Other						\$ -
Enhance	\$ 250,000			\$ 3,590,000	\$ 150,000	\$ 3,990,000
Total	\$ 250,000	\$ -	\$ -	\$ 4,090,000	\$ 150,000	

Total Dollars (sum of Total column) \$ 4,490,000 *These two cells should be the same figure.*
 Total Dollars (sum of Total row) \$ 4,490,000
 Check to make sure these amounts are the same as the Funding Request Amount on page 1 of Main Funding Form.

Table 5. Target Lake/Stream/River Miles

miles of Lakes / Streams / Rivers Shoreline

Table 6. Acquisition by PILT Status (enter information in acres)

	Wetlands	Prairies	Forests	Habitats	Total
Acquired in Fee with State PILT Liability					0
Acquired in Fee w/o State PILT Liability					0
Permanent Easement <i>PILT Liability</i> <i>NO State</i>					0
	0	0	0	0	

Table 7. Estimated Value of Land Acquisition by PILT Status (enter information in dollars)

	Wetlands	Prairies	Forests	Habitats	Total	
Acquired in Fee with State PILT Liability					\$ -	\$ -
Acquired in Fee w/o State PILT Liability					\$ -	\$ -
Permanent Easement <i>PILT Liability</i> <i>NO State</i>					\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -		

FYI: should match total in budget table that is auto entered below

Attachment C. Parcel List

Name of Proposal: Living Shallow Lakes & Wetlands Initiative
Legislative Citation:
Date: 24-Oct-11

County	Township (25-258)	Range (01-51)	Direction most parcels are 2 with the exception of some areas of Cook County which is 1	Section (01 thru 36)	TRDS	# of acres	Budgetary Estimate (includes administrative, restoration or other related costs and do not include matching money contributed or earned by the transaction)	Description	Activity PF=Protect Fee PE=Protect Easement PO=Protect Other R=Restore E=Enhance	If Easement, what is the easement cost as a % of the fee acquisition?	Any existing protection? (yes/no)	Open to hunting and fishing? (yes/no)	
Parcel Name													
Anderson WPA	Becker	139	42	2	1	13942201	100	210000	Install water control structure	E		Yes	Yes
Spink WPA	Grant	128	43	2	25	12843225	40	155000	Install water control structure	E		Yes	Yes
Demaree WPA	Grant	130	43	2	16	13043216	80	210000	Install water control structure	E		Yes	Yes
Meeker WPA	Kandiyohi	118	33	2	1	11833201	75	155000	Restore wetland hydrology	R		Yes	Yes
Henjum WPA	Kandiyohi	121	36	2	28	12136228	25	110000	Install water control structure	E		Yes	Yes
Christiania WPA	Jackson	104	35	2	10	10435210	22	105000	Restore wetland hydrology	R		Yes	Yes
Klages WMA - Lake 14	Big Stone	121	44	2	7	12144207	48	150000	Install water control structure	E		Yes	Yes
Erlandson WMA	Ottertail	131	43	2	25	13143225	35	140000	Restore wetland hydrology	R		Yes	Yes
Hobza WMA - Spring Lake	Blue Earth	106	25	2	15	10625215	142	145000	Install water control structure	E		Yes	Yes
Teal Lake	Jackson	105	35	2	27	10535227	88	180000	Install water control structure	E		Yes	Yes
Malardi WMA	Wright	119	26	2	25	11926225	149	205000	Install water control structure	E		Yes	Yes
Banks WMA	Cottonwood	105	35	2	27	10535227	66	140000	Install water control structure	E		Yes	Yes
Four Corners WMA	Martin	103	32	2	31	10332231	40	140000	Restore wetland hydrology	R		Yes	Yes
Yaeger WMA	Wadena	137	34	2	3	13734203	384	150000	Install water control structure	E		Yes	Yes
Sand Lake	Sibley	112	30	2	24	11230224	132	180000	Install water control structure	E		Yes	Yes
Prairie Dell WMA	Lincoln	113	45	2	16	11345216	45	180000	Install water control structure	E		Yes	Yes
Stokman Lake	Blue Earth	105	25	2	34	10525234	110	180000	Install water control structure	E		Yes	Yes
Simon Lake	Pope	123	37	2	29	12337229	569	180000	Install water control structure	E		Yes	Yes
Shakotan WMA	Lincoln	111	46	2	4	11146204	144	210000	Install water control structure	E		Yes	Yes
Sanborn Lake	Le Sueur	112	23	2	26	11223226	448	230000	Install water control structure	E		Yes	Yes
Everglade WMA	Stevens	126	44	2	36	12644236	158	280000	Install water control structure	E		Yes	Yes
Mud Lake WPA	Grant	130	44	2	36	13044236	70	200000	Install water control structure	E		Yes	Yes
Stinking Lake	Becker	140	43	2	30	14043230	400	200000	Install water control structure	E		Yes	Yes
Sioux Valley WMA	Jackson	101	37	2	28	10137228	100	200000	Install water control structure	E		Yes	Yes

Note: The program managers may perform shallow lake assessments and pre-bioengineering, survey, pre-design and design projects not on the parcel list based upon feasibility or urgency so long as the work forwards the constitutional objectives of this program in Narrative Section -of this accomplishment plan. Work authorized includes all aspects of bio-engineering technical assistance, including but not limited to assessments, survey, pre-design, design, specifications; assessments; securing of easements and permits; associated legal work and wildlife lake designations necessary to prepare project work; and, preliminary shallow lake and wetland project technical assistance to conservation agencies. The final accomplishment plan report will include a project parcel list showing all parcels or shallow lake basins addressed under this authority.