

Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2013 Accomplishment Plan



Date: May 22, 2017

Program or Project Title: Lower Mississippi River Habitat Partnership

Funds Recommended: \$ 1,710,000

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Legislative Citation: ML 2013, Ch. 137, Art. 1, Sec. 2, Subd. 5(f)

Appropriation Language: \$1,710,000 in the first year is to the commissioner of natural resources to enhance aquatic habitat. Of this amount, \$450,000 is for an agreement with the United States Fish and Wildlife Service to enhance aquatic habitat in the lower Mississippi River watershed. A list of proposed land restorations and enhancements must be provided as part of the required accomplishment plan.

County Locations: Goodhue, Houston, and Wabasha.

Regions in which work will take place:

- Southeast Forest

Activity types:

- Enhance
- Restore

Priority resources addressed by activity:

- Habitat
- Prairie
- Wetlands

Abstract:

This proposal seeks to protect and enhance habitat along the Mississippi River Corridor through wetland restoration and enhancement; goat prairie restoration; water level management, island construction, backwater dredging and channel restoration.

Design and scope of work:

The Mississippi River, once one of our nation's most diverse ecosystems, has been degraded. Historically, the Mississippi River, from the Twin Cities to the Iowa border was an important travel corridor that attracted many cultures with its abundance of timber, fish and game, fertile prairies, floodplain wetlands, adjacent bluffs, and clear and numerous spring-fed streams. For centuries, native cultures traveled, camped, and lived along this magnificent reach of river. In the mid-1800s; however, European settlers arrived and forever changed the landscape by logging forests, converting prairies to farmland, channelizing and constructing levees along tributaries, building cities and towns, and constructing wing dams and other structures for navigation.

Major tributaries, including the Root and Zumbro Rivers, were channelized and leveed in their lower reaches near the Mississippi River in the early 1900s, isolating them from their floodplains except during high water events. Forests, wetlands, and prairies behind the levees were converted to agriculture or urban uses. Over 15,000 acres of native habitats were lost, fragmenting the natural habitat corridors that connected the Mississippi River to its tributaries and their watersheds that were essential to the many species of fish and wildlife that roamed this area. This was especially damaging to high quality wetlands that were found in these floodplains.

Construction of locks and dams in the 1930s changed the river into a series of navigation pools. Pools 1 (Minneapolis) through 9 (MN/IA border) are located in Minnesota. Initially, these pools increased marsh and wetland areas, creating numerous islands and deep backwaters. Fish and wildlife were abundant, with waterfowl hunting and fishing in the backwaters world-renowned. Over time, the pools began filling with sediment and wind and boat waves eroded away islands. Increased drainage and turbid water runoff from southern Minnesota tributaries, especially the Minnesota River, along with urban pollution from the Twin Cities, caused the reach from the mouth of the Minnesota River to Lake Pepin to become very turbid and nearly void of dissolved oxygen. By the 1960s, few fish were able to survive, aquatic vegetation nearly disappeared, and hunting, fishing, and other recreational opportunities in the river above Lake Pepin were almost non-existent.

The Clean Water Act in the 1970s helped reduce point source pollution, resulting in improved water quality and subsequent improvements to some fish and wildlife species. While conditions have improved from their worst levels, there remain serious problems. Sediment from non-point sources continues to be a detriment throughout this reach, currently filling Lake Pepin at a rate nearly ten times greater than occurred historically. Lake Pepin is now the sink for nearly 90,000 metric tons of sediment per year, mostly from the Minnesota River. At the current rate of filling, which is equivalent to one city block covered with 100 feet of sediment each year, Lake Pepin will fill in just 300 years. The channels and backwaters along this reach (Twin Cities to Lake Pepin) remain one of the most degraded sections of the entire Upper Mississippi River System (Minneapolis to the mouth of the Ohio River).

Floodplain forests and oak savannas have also been impacted. Where the Vermillion and Cannon Rivers join the Mississippi, considerable state, federal, and private lands create one of the largest contiguous blocks of forest near a metropolitan area in the entire Upper Mississippi River Basin. These forests have been impacted by encroachment, invasive species, lack of floodwater scouring resulting in reduced tree regeneration, and artificially high water levels from the locks and dams. Forest stand diversity (age and species of trees), along with interior forest birds that need large blocks of intact forest, have declined.

Combined these changes have resulted in the loss or degradation of approximately 700,000 acres (60%) of native prairie, wetland, and forest in the blufflands region of southeastern Minnesota, which includes the 170-mile reach of the Mississippi River from the Twin Cities to the Iowa border. Fish and wildlife populations have suffered, with 82 species now considered rare, threatened, or endangered. The Minnesota State Wildlife Action Plan lists more species in greatest conservation need for the blufflands subsection than for any other subsection in Minnesota.

The Lower Mississippi River Habitat Partnership includes over 20 agencies and organizations that have been working together to solve these problems. Each year a proposal is submitted to LSOHC that identifies specific projects that represent immediate opportunities for habitat protection, enhancement or restoration along the Mississippi River Corridor. For the FY14 proposal, we have developed a comprehensive project list involving numerous habitat protection and enhancement tools. Funding is requested to complete the top 3 priority projects, which include wetland restoration and enhancement; goat prairie restoration; and water level management, island building, backwater dredging and channel restoration.

Which sections of the Minnesota Statewide Conservation and Preservation Plan are applicable to this program:

- H1 Protect priority land habitats
- H2 Protect critical shoreland of streams and lakes
- H5 Restore land, wetlands and wetland-associated watersheds
- H6 Protect and restore critical in-water habitat of lakes and streams

Which other plans are addressed in this program:

- Long Range Duck Recovery Plan
- Minnesota DNR Scientific and Natural Area's Long Range Plan
- Minnesota DNR Strategic Conservation Agenda
- Minnesota's Wildlife Action Plan 2015-2025
- North American Waterbird Conservation Plan
- North American Waterfowl Management Plan
- U.S. Fish and Wildlife Service Strategic Habitat Conservation Model
- Upper Mississippi River and Great Lakes Region Projects Joint Ventures Plan

Which LSOHC state-wide priorities are addressed in this program:

- Allow public access. This comes into play when all other things about the request are approximately equal
- Are able to leverage effort and/or other funds to supplement any OHF appropriation
- 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
- 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

Which LSOHC section priorities are addressed in this program:

Southeast Forest:

- Protect, enhance, and restore habitat for fish, game, and nongame wildlife in rivers, cold-water streams, and associated upland habitat
- Protect, enhance, and restore remnant goat prairies

Relationship to other funds:

- Clean Water Fund

Describe the relationship of the funds:

This partnership will primarily benefit habitat. However, there will be significant secondary benefits for clean water. Any related efforts will be coordinated with other funding sources, such as Clean Water Council and LCCMR.

How does this program accelerate or supplement your current efforts in this area:

Funding is needed to begin implementing projects. On the Upper Mississippi River National Wildlife and Fish Refuge's Root River Tract, about 700 acres of land have recently been acquired. An "Evaluation of Ecosystem Restoration and Management Options" for the Root River Tract was completed in November 2010. Preliminary engineering work has also been completed. Funding would permit habitat enhancement work to proceed. Funding now would also allow habitat restoration efforts to begin on about 70 acres of goat prairie benefiting many rare species of native plants and animals. Water level management, island construction, backwater dredging and channel restoration would benefit North and Sturgeon Lakes in Navigation Pool 3 and Goose Lake in Navigation Pool 5. Funds from LSOHC would be leveraged with funds from the U.S. Army Corps of Engineers (USACOE) and the Prairie Island Indian community (PIIC) to benefit nearly 2,000 acres of habitat.

Per MS 97A.056, Subd. 24, Any state agency or organization requesting a direct appropriation from the OHF must inform the LSOHC at the time of the request for funding is made, 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:

Not Listed

How will you sustain and/or maintain this work after the Outdoor Heritage Funds are expended:

Maintenance would be completed by partner agencies as part of their normal management schedule. For example, on the Upper Mississippi River National Wildlife and Fish Refuge, maintenance will be the responsibility of the U.S. Fish and Wildlife Service. On state-owned lands, it will be primarily the responsibility of the Minnesota Department of Natural Resources.

Activity Details:

Will there be planting of corn or any crop on OHF land purchased or restored in this program - **Not Listed**

Is the activity on permanently protected land per 97A.056, subd 13(f) and/or public waters per MS 103G.005, Subd. 15 - **Yes (SNA, Refuge Lands, Public Waters, State Forests, no)**

Accomplishment Timeline:

Activity	Approximate Date Completed
Goat prairie enhancement	6/30/2018
Wetland and forest enhancement	6/30/2018
Island construction, backwater dredging and channel restoration	6/30/2018

Date of Final Report Submission: 9/28/2018

Federal Funding:

Do you anticipate federal funds as a match for this program - **Yes**

Are the funds confirmed - **Yes**

What are the types of funds?

Cash Match - \$

In-Kind Match - \$50000

Other -

Outcomes:

Programs in southeast forest region:

- Healthier populations of endangered, threatened, and special concern species as well as more common species
- Improved aquatic habitat indicators
- Remnant goat prairies are perpetually protected
- Rivers, streams, and surrounding vegetation provide corridors of habitat
- Outdoor recreationists will benefit from these projects

Budget Spreadsheet

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

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

Not Listed

Total Amount of Request: \$ 1710000

Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$165,000	\$30,000	USFWS personnel salary	\$195,000
Contracts	\$1,463,000	\$13,229,000	USACE and PIIC	\$14,692,000
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	\$0	\$0		\$0
Professional Services	\$0	\$0		\$0
Direct Support Services	\$12,000	\$0	MDNR	\$12,000
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$70,000	\$20,000	USFWS provided	\$90,000
DNR IDP	\$0	\$0		\$0
Total	\$1,710,000	\$13,279,000		\$14,989,000

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Maintenance Worker (Heavy Equipment Operator)	1.73	0.29	\$165,000	\$0		\$165,000
Refuge Manager	0.30	0.30	\$0	\$30,000	USFWS personnel salary	\$30,000
Total	2.03	0.59	\$165,000	\$30,000		\$195,000

Budget and Cash Leverage by Partnership

BudgetName	Partnership	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	USFWS	\$165,000	\$30,000	USFWS personnel salary	\$195,000
Contracts	USFWS	\$215,000	\$0		\$215,000
Fee Acquisition w/ PILT	USFWS	\$0	\$0		\$0
Fee Acquisition w/o PILT	USFWS	\$0	\$0		\$0
Easement Acquisition	USFWS	\$0	\$0		\$0
Easement Stewardship	USFWS	\$0	\$0		\$0
Travel	USFWS	\$0	\$0		\$0
Professional Services	USFWS	\$0	\$0		\$0
Direct Support Services	USFWS	\$0	\$0		\$0
DNR Land Acquisition Costs	USFWS	\$0	\$0		\$0
Capital Equipment	USFWS	\$0	\$0		\$0
Other Equipment/Tools	USFWS	\$0	\$0		\$0
Supplies/Materials	USFWS	\$70,000	\$20,000	USFWS provided	\$90,000
DNR IDP	USFWS	\$0	\$0		\$0
Total		\$450,000	\$50,000		\$500,000

Personnel - USFWS

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Maintenance Worker (Heavy Equipment Operator)	1.73	0.29	\$165,000	\$0		\$165,000
Refuge Manager	0.30	0.30	\$0	\$30,000	USFWS personnel salary	\$30,000
Total	2.03	0.59	\$165,000	\$30,000		\$195,000

Budget Name	Partnership	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	DNR	\$0	\$0		\$0
Contracts	DNR	\$1,248,000	\$13,229,000	USACE and PIIC	\$14,477,000
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	DNR	\$0	\$0		\$0
Professional Services	DNR	\$0	\$0		\$0
Direct Support Services	DNR	\$12,000	\$0	MDNR	\$12,000
DNR Land Acquisition Costs	DNR	\$0	\$0		\$0
Capital Equipment	DNR	\$0	\$0		\$0
Other Equipment/Tools	DNR	\$0	\$0		\$0
Supplies/Materials	DNR	\$0	\$0		\$0
DNR IDP	DNR	\$0	\$0		\$0
Total		\$1,260,000	\$13,229,000		\$14,489,000

How did you determine which portions of the Direct Support Services of your shared support services is direct to this program:

Standard MDNR Formula

Output Tables

Table 1a. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	70	0	0	70
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	700	0	0	2,000	2,700
Total	700	70	0	2,000	2,770

Table 1b. How many of these Prairie acres are Native Prairie?

Type	Native Prairie
Restore	0
Protect in Fee with State PILT Liability	0
Protect in Fee W/O State PILT Liability	0
Protect in Easement	0
Enhance	0
Total	0

Table 2. Total Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$150,000	\$0	\$0	\$150,000
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	\$450,000	\$0	\$0	\$1,110,000	\$1,560,000
Total	\$450,000	\$150,000	\$0	\$1,110,000	\$1,710,000

Table 3. Acres within each Ecological Section

Type	Metro Urban	ForestPrairie	SE Forest	Prairie	N Forest	Total
Restore	0	0	70	0	0	70
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	0	2,700	0	0	2,700
Total	0	0	2,770	0	0	2,770

Table 4. Total Funding within each Ecological Section

Type	Metro Urban	ForestPrairie	SE Forest	Prairie	N Forest	Total
Restore	\$0	\$0	\$150,000	\$0	\$0	\$150,000
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	\$0	\$1,560,000	\$0	\$0	\$1,560,000
Total	\$0	\$0	\$1,710,000	\$0	\$0	\$1,710,000

Target Lake/Stream/River Feet or Miles

Parcel List

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.

Section 1 - Restore / Enhance Parcel List

Goodhue

Name	TRDS	Acres	Est Cost	Existing Protection?
North and Sturgeon Lakes - Pool 3 of Mississippi River	11416225	1,800	\$940,000	Yes - federal/tribal ownership

Houston

Name	TRDS	Acres	Est Cost	Existing Protection?
Goat prairie enhancement	10405225	70	\$150,000	Yes
Root River Tract - Upper Mississippi River National Wildlife and Fish Refuge	10404235	700	\$299,612	Yes - national wildlife refuge

Wabasha

Name	TRDS	Acres	Est Cost	Existing Protection?
Goose Lake - Pool 5 of Mississippi River	10909218	10	\$158,000	Yes - national wildlife refuge

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.

Completed Parcel: Goat prairie enhancement

# of Total Acres:	70
County:	Houston
Township:	104
Range:	05
Direction:	2
Section:	25
# of Acres: Wetlands/Upland:	
# of Acres: Forest:	
# of Acres: Prairie/Grassland:	112.7
Amount of Shoreline:	(Linear Feet)
Name of Adjacent Body of Water (if applicable):	
Has there been signage erected at the site:	
Total cost of Restoration/Enhancement:	\$150,000

Completed Parcel: Goose Lake - Pool 5 of Mississippi River

# of Total Acres:	10
County:	Wabasha
Township:	109
Range:	09
Direction:	2
Section:	18
# of Acres: Wetlands/Upland:	
# of Acres: Forest:	
# of Acres: Prairie/Grassland:	
Amount of Shoreline:	(Linear Feet)
Name of Adjacent Body of Water (if applicable):	Mississippi River
Has there been signage erected at the site:	Yes
Total cost of Restoration/Enhancement:	\$158,000

Completed Parcel: Root River Tract - Upper Mississippi River National Wildlife and Fish Refuge

# of Total Acres:	700
County:	Houston
Township:	104
Range:	04
Direction:	2
Section:	35
# of Acres: Wetlands/Upland:	650
# of Acres: Forest:	50
# of Acres: Prairie/Grassland:	
Amount of Shoreline:	(Linear Feet)
Name of Adjacent Body of Water (if applicable):	Root River and Mississippi River
Has there been signage erected at the site:	Yes
Total cost of Restoration/Enhancement:	\$299,612

Parcel Map

