

Lessard-Sams Outdoor Heritage Council Laws of Minnesota 2014 Accomplishment Plan

Date: March 17, 2017

Program or Project Title: Floodplain Forest Enhancement - Mississippi River

Funds Recommended: \$ 300,000



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Legislative Citation: ML 2014, Ch. 256, Art. 1, Sec. 2, Subd. 3(h)

Appropriation Language: \$300,000 is to the commissioner of natural resources for an agreement with National Audubon Society to enhance floodplain forest habitat for wildlife on public lands along the Mississippi River. A list of restorations and enhancements must be provided as part of the required accomplishment plan.

County Locations: Goodhue, Houston, Wabasha, and Winona.

Regions in which work will take place:

- Southeast Forest

Activity types:

- Enhance

Priority resources addressed by activity:

- Forest

Abstract:

Invasive species are preventing natural regeneration of trees and threatening floodplain forests and wildlife along the Mississippi River. This effort is part of long-term program to restore floodplain forest by controlling invasive species and planting floodplain forest trees.

Design and scope of work:

The Mississippi River from Hastings to the Iowa border contains some of the largest and most significant tracts of floodplain forest along the entire Upper Mississippi River. These forests and mixed wetlands cover several thousand acres and are especially critical to many species of birds and other wildlife, including wood ducks which use the area for nesting and feeding.

These forests are under threat. While historically diverse in the number, age, and size of tree species, much of the forest now consists of silver maple ranging from 50-70 years old. These trees are expected to live another 50-70 years, after which they will die-off and disappear. Unfortunately, when trees are removed through harvest or die naturally, reed canary grass and other invasive species move in and prevent natural regeneration. This is occurring at a number of locations within the project area, and without aggressive, long-term management these floodplain forests will be greatly reduced or in some locations disappear completely.

Floodplain forest regeneration is a slow process taking decades to accomplish. By selectively controlling invasive species following harvest, blowdown, or other events and planting larger size trees the forest can be maintained long-term. Restoring forest at small sites within larger tracts will ensure that a diversity of tree species, sizes, and ages will be present. This approach over time will maintain large contiguous blocks of forest and continue to provide habitat for many wildlife species, including rare species like cerulean warbler and red-shouldered hawk.

This proposal seeks funding to complete or continue implementing floodplain restoration and enhancement at 12 sites within the overall project area. As the forest ages, additional sites will require similar work to maintain contiguous floodplain forest. Five of the 12 sites are located within the Vermillion/Cannon Bottoms State Forest or within the Gores Wildlife Management Area and range from 5-60 acres. The remaining sites are located within the Upper Mississippi National Wildlife and Fish Refuge near Winona, MN and Brownsville, MN, or on State Wildlife Management Area lands in the Whitewater WMA. Each site is threatened by invasive species and natural regeneration of floodplain forest trees is not expected without aggressive management. Funding would be used to control invasive species using a combination of prescribed burns, mowing, and herbicide applications. Past efforts to plant seedlings have not been successful, so once invasive species are controlled larger-size trees suitable to each site will be planted at most sites. Deer protection will be provided as needed. This combination will allow the trees to establish and over time develop a canopy that limits or prevents invasive species and maintains the overall diversity of the forest.

Priority sites were determined in conjunction with MN DNR Foresters and Wildlife Managers, US Fish and Wildlife Service Biologists, and Corps of Engineers Foresters and are locations under serious threat of losing the floodplain forest. All of the sites are on public lands open to hunting and fishing, either on state forest lands, state Wildlife Management Areas, or within the Upper Mississippi River National Wildlife and Fish Refuge. The only exception is the Dukes Pond site, while located on state forest lands, is part of a wildlife sanctuary and is not open to hunting (it is open to fishing). Audubon Minnesota will serve as the project manager for each site and coordinate the work and associated contracts. Much of the work will be done through Conservation Corps Minnesota. Audubon will work closely with DNR, USFWS, and Corps of Engineers managers to ensure these projects meet state standards and are part of the overall management goals for the landscape area. This work will be done in conjunction with other partners including Prairie Island Indian Community, US Geological Survey, and private landowners in the project area that are interested in methods to successfully control invasive species and establish floodplain forest canopy.

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

- H5 Restore land, wetlands and wetland-associated watersheds
- LU8 Protect large blocks of forest land
- LU10 Support and expand sustainable practices on working forested lands

Which other plans are addressed in this program:

- Minnesota DNR Nongame Wildlife Plans
- Minnesota DNR Scientific and Natural Area's Long Range Plan
- Minnesota Forest Resource Council Landscape Plans
- National Audubon Society Top 20 Common Birds in Decline
- Outdoor Heritage Fund: A 25 Year Framework
- Tomorrow's Habitat for the Wild and Rare
- Upper Mississippi River Forest Stewardship Plan

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

- 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
- 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

- 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

Which LSOHC section priorities are addressed in this program:

Southeast Forest:

- Restore forest-based wildlife habitat that has experienced substantial decline in area in recent decades

Relationship to other funds:

- Not Listed

Describe the relationship of the funds:

Not Listed

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

Audubon is part of a broad partnership including state and federal agencies, local and tribal governments, and NGO's that has been working to protect and enhance floodplain forests along the Upper Mississippi River for over a decade. A 2005 report by Minnesota DNR and other partners outlined long-term management goals for the project area. Controlling invasive species and regenerating native floodplain forest tree species was identified as a critical need.

Since the 2005 report, there has been limited funding for aggressive forest restoration work. This proposal will result in active management to meet long-term goals by implementing invasive species control and reestablishing native tree species. This effort will sustain larger blocks of floodplain forest providing critical habitat for rare birds and other wildlife, and for game species such as wood duck.

Audubon has full-time positions based out of Red Wing and Lacrosse focused on implementing habitat projects. This area includes three designated Important Bird Areas (IBA's) and is one of Audubon Minnesota's top priorities for restoration work. In addition to Outdoor Heritage funding, Audubon has received and is seeking additional funding to assist private landowners with similar restoration projects to ensure the area is managed on a landscape level.

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

Successful floodplain forest restoration will result in forested canopy consisting of a variety of tree species, sizes, and ages. Additional maintenance work at these specific sites may be needed, especially in the early years following restoration to control invasive plants around the newly planted trees. Major restoration would not be anticipated for decades. However, similar work would need to be done at other sites not included in this proposal and without a long-term management approach it is unlikely floodplain forest will be sustained.

Activity Details:

Will there be planting of corn or any crop on OHF land purchased or restored in this program - **No**

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

Accomplishment Timeline:

Activity	Approximate Date Completed
site preparation (invasive species control) and tree planting	2019

Date of Final Report Submission: 6/30/2019

Federal Funding:

Do you anticipate federal funds as a match for this program - **Not Listed**

Outcomes:

Programs in southeast forest region:

- Healthier populations of endangered, threatened, and special concern species as well as more common species *Rare birds or indicator birds will be monitored to measure habitat use following enhancement.*
- Large corridors and complexes of biologically diverse wildlife habitat typical of the unglaciated region are restored and protected
Percent of forested areas will be evaluated.

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: \$ 300000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$33,000	\$8,000	Audubon, Audubon	\$41,000
Contracts	\$207,000	\$10,000	Audubon	\$217,000
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	\$0	\$0		\$0
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$60,000	\$0		\$60,000
DNR IDP	\$0	\$0		\$0
Total	\$300,000	\$18,000		\$318,000

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Community Conservation Coordinator	0.15	3.00	\$18,000	\$8,000	Audubon	\$26,000
Forest Ecologist	0.10	3.00	\$10,000	\$0	Audubon	\$10,000
Administrative Assistant	0.00	3.00	\$5,000	\$0		\$5,000
Total	0.25	9.00	\$33,000	\$8,000		\$41,000

Output Tables

Table 1a. 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	0	0	125	0	125
Total	0	0	125	0	125

Table 2. Total 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	\$0	\$0	\$300,000	\$0	\$300,000
Total	\$0	\$0	\$300,000	\$0	\$300,000

Table 3. Acres within each Ecological Section

Type	Metro Urban	Forest Prairie	SE Forest	Prairie	N 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	0	125	0	0	125
Total	0	0	125	0	0	125

Table 4. Total Funding within each Ecological Section

Type	Metro Urban	Forest Prairie	SE Forest	Prairie	N 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	\$0	\$300,000	\$0	\$0	\$300,000
Total	\$0	\$0	\$300,000	\$0	\$0	\$300,000

Target Lake/Stream/River Feet or Miles

0

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?
Cannon River Bottoms -east of Collischan Road	11315215	15	\$15,000	Yes
Cannon River Bottoms -state forest	11315216	40	\$110,000	Yes
Cannon River Collischan Road willow project	11315216	10	\$25,000	Yes
Dukes Pond, Cannon River Bottoms	11315223	10	\$25,000	Yes
Gores WMA	11416210	20	\$42,300	Yes
North Clear Lake	11416222	20	\$35,000	Yes

Houston

Name	TRDS	Acres	Est Cost	Existing Protection?
Richmond Island	10605222	10	\$25,000	Yes
Root River	10404236	115	\$136,000	Yes
Whalen Tract	10104235	20	\$54,000	Yes

Wabasha

Name	TRDS	Acres	Est Cost	Existing Protection?
East Indian Creek Delta	10909219	105	\$87,500	Yes
Wabasha Prairie Bottoms	11009230	75	\$18,800	Yes

Winona

Name	TRDS	Acres	Est Cost	Existing Protection?
Whitewater Delta	10909229	40	\$34,500	Yes
Whitewater DNR	10810214	16	\$15,000	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.

Completed Parcel: Gores WMA

# of Total Acres:	20
County:	Goodhue
Township:	114
Range:	16
Direction:	2
Section:	10
# of Acres: Wetlands/Upland:	
# of Acres: Forest:	
# of Acres: Prairie/Grassland:	
Amount of Shoreline:	(Linear Feet)
Name of Adjacent Body of Water (if applicable):	
Has there been signage erected at the site:	

Parcel Map

Floodplain Forest Enhancement - Mississippi River

