Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2019 Accomplishment Plan

General Information

Date: 08/03/2021

Project Title: Floodplain Forest Enhancement-Mississippi River, Phase 3

Funds Recommended: $1,357,000

Legislative Citation: ML 2019, 1st Sp. Session, Ch. 2, Art. 1, Sec. 2, subd, 3(d)

Appropriation Language: $1,357,000 the first year is to the commissioner of natural resources for an agreement with the National Audubon Society to restore and 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.

Manager Information

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Location Information

County Location(s): Winona, Goodhue, Houston, Dakota and Wabasha.

Eco regions in which work will take place:

- Southeast Forest

Activity types:

- Enhance

Priority resources addressed by activity:

- Forest

Narrative

Abstract

Reed canary grass and other invasive plants are preventing natural regeneration of trees and threatening floodplain forests and wildlife

along the Mississippi River. This effort builds on two previous LSOHC grants to control invasive species and plant trees as part of a long-term restoration strategy by Audubon Minnesota and key partners to sustain diverse and productive floodplain forests and the wildlife

and birds they support.

Design and Scope of Work

The Mississippi River from Hastings to the Iowa border contains some of the largest tracts of floodplain forest along the entire Upper

Mississippi River. These forests and mixed wetlands cover thousands of acres and are critical to many species of birds and other

wildlife, including wood ducks, which use these areas for nesting and feeding.

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 naturally. Unfortunately, when trees are

lost, reed canary grass and other invasive species move in and prevent natural regeneration. This is occurring throughout the project

area, and without aggressive, long-term management these floodplain forests will decline or in some locations disappear completely.

Floodplain forest regeneration is a slow process taking decades to accomplish. By selectively controlling invasive species and

regenerating 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 are present. This approach over time will maintain large contiguous blocks of forest and provide habitat

for many wildlife species, including rare birds like ceruleuan warbler and red-shouldered hawk.

This proposal seeks funding to continue floodplain forest enhancement throughout the project area. The number of sites needing

enhancement or restoration is extensive. To date we have completed or begun work on 15 sites totaling over 500 acres. This proposal

significantly expands our scope and includes 25 sites covering up to 4,300 acres. Sites were determined in collaboration with Minnesota

Department of Natural Resources, US Fish and Wildlife Service, and US Army Corps of Engineers and identify locations under serious

threat of losing critical floodplain forest. All sites are located on public lands within state forests, WMA's, Upper Mississippi River

National Wildlife and Fish Refuge, or US Army Corps of Engineers owned lands open to hunting and fishing.

Funding will be used to control invasive species, especially reed canary grass, plant trees of various sizes and species, and maintain plantings. Timber stand improvements will create small openings allowing for greater diversity in species and age structure as. Seedlings will be planted in the understory of ash dominated stands to ensure regeneration when the canopy opens due to ash borer. Old

agricultural fields will be planted to native forest. Timber harvest will be used to improve forest structure and regenerate young trees.

Deer and vole protection will be provided as needed. Over time trees will establish and develop a canopy that shades out invasive

species and maintains overall forest diversity.

How does the plan address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species?

Floodplain forests are rare habitats compared to adjacent upland forests, often found in relatively narrow ribbons along river corridors

and historically providing important travel routes for wildlife. The Mississippi River, a critical migration corridor for birds, provides some

of the most significant tracts of floodplain forest in the United States. In Minnesota, the Mississippi River and lower ends of tributaries

include large areas of high biodiversity significance as identified by the Minnesota County Biological Survey. Studies by the US

Geological Survey along the Upper Mississippi River have shown more species of songbirds use these floodplain forests than adjacent

upland forests. Species of special concern, including cerulean warbler and red-shouldered hawk, require large contiguous habitat

blocks of floodplain forest for survival. This proposal will help ensure the long-term sustainability of floodplain forests along the

Mississippi River.

Describe how the plan uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:

The Upper Mississippi River Systemic Forest Stewardship plan prepared by the US Army Corps of Engineers and other partners in 2012

was used to guide restoration and enhancement strategies. This plan outlines the problem, urgency, and recommended actions to

regenerate trees and sustain quality floodplain forest habitats. Through this grant our forestry program will continue to enhance lands

currently identified as floodplain forest by the Minnesota County Biological Survey while reducing current and future fragmentation

threats.

Which two sections of the Minnesota Statewide Conservation and Preservation Plan are most applicable to this project?

- H5 Restore land, wetlands and wetland-associated watersheds
- LU8 Protect large blocks of forest land

Which two other plans are addressed in this program?

- Other : Upper Mississippi Systemic Forest Stewardship Plan; Upper Mississippi River National Wildlife and Fish Refuge Habitat Management Plan; Audubon Blueprint for Minnesota Bird Conservation: Recommendations for Minnesota's Prairie Hardwood Transition Region

Which LSOHC section priorities are addressed in this program?

Southeast Forest

- Protect from long-term or permanent endangerment from invasive species

Does this program include leveraged funding?

Yes

Explain the leverage:

Audubon has two professional staff responsible for floodplain forest enhancement along the Mississippi River, including a full-time

Forester. The Forester position is cost shared 50% with the Upper Mississippi River National Wildlife and Fish Refuge. Funding from

private donors is also used to fund staff salaries associated with this work. Most of our funding for implementing projects (contractors,

tree purchase, etc.) is dependent upon LSOHC funding. Also, partners including USFWS, US Army Corps of Engineers, and volunteers

provide technical expertise and/or labor to assist with project design and implementation.

Per MS 97A.056, Subd. 24, Please explain 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.

LSOHC funding is in addition to other funding sources, and does not supplant that work. Without LSOHC funding, Audubon MN would

not have resources to implement enhancement projects, and would have greater challenges in funding personnel salaries associated

with this work.

Non-OHF Appropriations

Year	Source	Amount
FY 14	US Fish and Wildlife Service	$80,000
FY 16	US Fish and Wildlife Service	$35,000
FY 14 Fy 16	McKnight Foundation	$40,000

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

Project sites need to be monitored after trees are planted for evidence of weed competition and deer or rodent damage. In some

cases follow up weed control or deer/mouse protection may be necessary. In some cases, flooding or other factors may cause a tree

planting to fail and trees need to be replanted. Audubon is committed to monitoring these sites and addressing any issues that arise

using funding from a variety of sources including private donors, foundations, and non-state grants. Some maintenance is built into this

OHF proposal for post treatment weed control in the latter years of the OHF appropriation. Also, Minnesota Department of Natural

Resources will complete follow-up maintenance on projects on state forest and lands and Wildlife Management

Areas. When available,

the US Fish and Wildlife Service and US Army Corps of Engineers will utilize staff and funding to maintain forestry management

practices.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2019-2023	LSOHC, USFWS, McKnight	Write Prescriptions	Conduct Site Preparation and Plant Trees	Post Planting Maintenance
2023-2026	USFWS,McKnight	Post Planting Maintenance	-	-

Activity Details

Requirements

If funded, this program will meet all applicable criteria set forth in MS 97A.056?
Yes

Will restoration and enhancement work follow best management practices including MS 84.973 Pollinator Habitat Program?
Yes

Is the restoration and enhancement activity on permanently protected land per 97A.056, Subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15?
Yes

Where does the activity take place?

- WMA
- AMA
- Refuge Lands
- State Forests

Land Use

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

Timeline

Activity Name	Estimated Completion Date
Complete Management Prescriptions	2019-2021
Complete Site Preparation	2019-2022
Plant Trees	2019-2022
Post Planting Weed Control and Maintenace	2020-2022

Date of Final Report Submission: 11/01/2023

Budget

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

Totals

Item	Funding Request	Antic. Leverage	Leverage Source	Total
Personnel	$209,300	$200,000	Private Foundation, USFWS, Private Foundation, N/A	$409,300
Contracts	$900,000	-	-	$900,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	-	-	-	-
Professional Services	-	-	-	-
Direct Support Services	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	$247,700	-	-	$247,700
DNR IDP	-	-	-	-
Grand Total	**$1,357,000**	**$200,000**	**-**	**$1,557,000**

Personnel

Position	Annual FTE	Years Working	Funding Request	Antic. Leverage	Leverage Source	Total
Grants Coordinator	0.05	4.0	$8,500	-	N/A	$8,500
Forest Ecologist	0.75	4.0	$82,400	$150,000	USFWS, Private Foundation	$232,400
Project Manager	0.5	4.0	$118,400	$50,000	Private Foundation	$168,400

Amount of Request: $1,357,000
Amount of Leverage: $200,000
Leverage as a percent of the Request: 14.74%
DSS + Personnel: $209,300
As a % of the total request: 15.42%
Easement Stewardship: -
As a % of the Easement Acquisition: -

How will this program accommodate the reduced appropriation recommendation from the original proposed requested amount?
Personnel costs have been reduced by over 50%. The capitol equipment expenditure has been eliminated. CCM crews will be utilized on a per project basis instead of hiring a full time permanent crew.

Describe and explain leverage source and confirmation of funds:
Audubon is a cooperator with USFWS and receives 40,000 annually for forester salary as well as vehicle use, office

space, and some miscellaneous expenses. Audubon also maintains various funding sources through foundations and can pledge an addition $40,000 through these entities.

Contracts

What is included in the contracts line?
Contracts will preform the majority of enhancement work. Contractors will be hired to conduct site preparation, tree planting, TSI, Direct seeding, and post planting care.

Federal Funds

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

> **Are the funds confirmed?**
> No
>
> **What is the approximate date you anticipate receiving confirmation of the federal funds?**
> Annually from 2019-2023

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
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	1,290	0	1,290
Total	**0**	**0**	**1,290**	**0**	**1,290**

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	$1,357,000	-	$1,357,000
Total	**-**	**-**	**$1,357,000**	**-**	**$1,357,000**

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
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	1,290	0	0	1,290
Total	**0**	**0**	**1,290**	**0**	**0**	**1,290**

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	$1,357,000	-	-	$1,357,000
Total	**-**	**-**	**$1,357,000**	**-**	**-**	**$1,357,000**

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	-	-	$1,051	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State	-	-	-	-	-

PILT Liability					
Protect in Easement	-	-	-	-	-
Enhance	-	-	$1,051	-	-

Target Lake/Stream/River Feet or Miles

Outcomes

Programs in southeast forest region:

- Large corridors and complexes of biologically diverse wildlife habitat typical of the unglaciated region are restored and protected ~ *Existing forests within the Mississippi River floodplain have been mapped, including location and tract size. Over time, forested land cover can be re-mapped to determine if forested locations and/or tract size has changed. In addition, forest inventory is being completed by Minnesota DNR, US Fish and Wildlife Service, and US Army Corps of Engineers to document forest cover, tree species, and size, regeneration, etc. These*

  can be re-surveyed over time to document changes in these parameters and evaluate success.

Parcels

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.

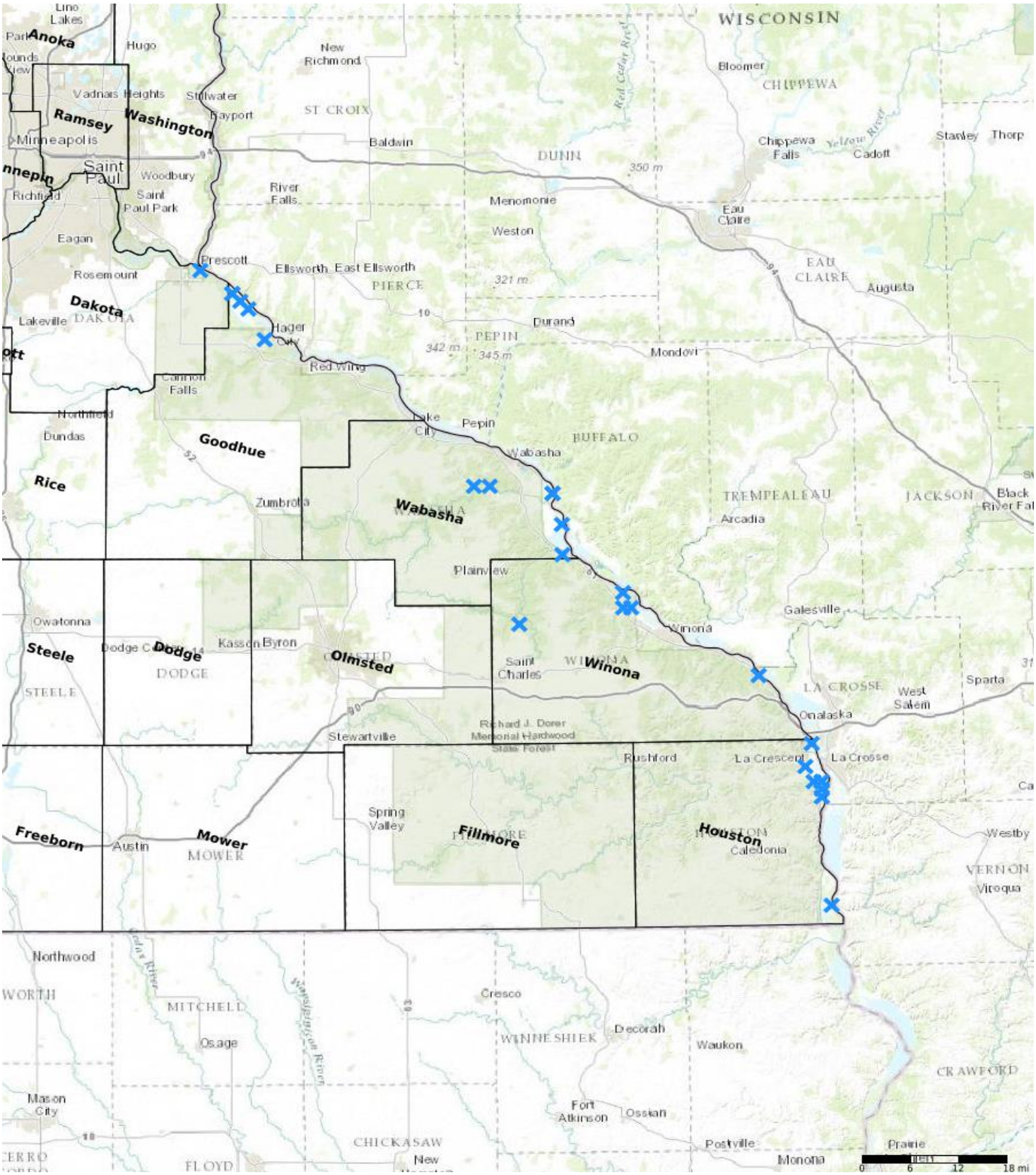
Parcel Information

Sign-up Criteria?
No

Explain the process used to identify, prioritize, and select the parcels on your list:

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Gores AMA DNR Fisheries	Dakota	11517225	35	$52,500	Yes
Gores WMA USACE	Goodhue	11416210	55	$27,700	Yes
Gores South USACE	Goodhue	11416214	602	$180,600	Yes
Gores WMA - North Lake	Goodhue	11416210	40	$0	Yes
North Lake USACE	Goodhue	11416224	378	$113,400	Yes
Garvin Brook USACE	Goodhue	10708201	100	$60,000	Yes
Vermillion Bottoms MNDNR	Goodhue	11315208	400	$600,000	Yes
Root River Barrier Islands 5	Houston	10304212	145	$145,000	Yes
Root River 3	Houston	10404236	270	$135,000	Yes
Root River South USACE	Houston	10404202	283	$141,500	Yes
Root River 2	Houston	10404236	100	$50,000	Yes
Hayshore Lake/Reno Bottoms	Houston	10103219	300	$300,000	Yes
Root River 4	Houston	10304201	80	$40,000	Yes
Root River 1	Houston	10404235	150	$160,000	Yes
Root River 6 North	Houston	10404222	54	$54,000	Yes
Winona District EAB Mitigation	Wabasha	10909209	72	$100,000	Yes
Wabasha Bottoms 2	Wabasha	11009220	12	$8,000	Yes
Zumbro Bottoms MNDNR	Wabasha	11011215	100	$100,000	Yes
Wabasha Bottoms 1	Wabasha	11009220	134	$134,000	Yes
Whitewater Delta USACE	Wabasha	10909233	115	$34,500	Yes
Zumbro Bottoms Ag Conversion MNDNR	Wabasha	11011213	100	$100,000	Yes
Whitewater WMA DNR	Winona	10710215	78	$150,000	Yes
Garvin	Winona	10708202	200	$175,000	Yes
Richmond Island USACE	Winona	10605222	96	$96,000	Yes
Horseshoe Bend USACE	Winona	10808226	365	$182,500	Yes



- Protect in Easement
- Protect in Fee with PILT
- Protect in Fee W/O PILT
- Restore
- Enhance
- Other

Parcel Map
Floodplain Forest Enhancement-Mississippi River, Phase 3
(Data Generated From Parcel List)