

Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2019 Accomplishment Plan



Date: October 10, 2018

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

Funds Recommended: \$ 1,357,000

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Legislative Citation: ML 2019, Ch. X, Art. 1, Sec. 2, subd. X(x)

Appropriation Language:

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

Eco regions in which work will take place:

- Southeast Forest

Activity types:

- Enhance

Priority resources addressed by activity:

- Forest

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 cerulean 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 request address MN habitats that have: historical value to fish and wildlife, wildlife species of greatest conservation need, MN County Biological Survey data, and/or rare, threatened and endangered species inventories:

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 the science based planning and evaluation model used:

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 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

Which other plans are addressed in this program:

- 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

Relationship to other funds:

- Environmental and Natural Resource Trust Fund

Describe the relationship of the funds:

Environment and Natural Resource Trust funds were secured in 2016 to study the most effective methods to control reed canary grass

and regenerate trees. This study will conclude in June 2019 and results will be used to develop a decision support tool to guide enhancement decisions for individual project sites. The results of the study will help select the most effective enhancement tools for projects included in this proposal.

Does this program include leverage in funds:

Yes

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, 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:

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.

Describe the source and amount of non-OHF money spent for this work in the past:

Appropriation 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.

Explain the things you will do in the future 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:

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

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

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

Is the activity on permanently protected land per 97A.056, subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 - **Yes (WMA, AMA, Refuge Lands, State Forests)**

Accomplishment Timeline:

Activity	Approximate Date Completed
Complete Management Prescriptions	2019-2021
Complete Site Preparation	2019-2022
Plant Trees	2019-2022
Post Planting Weed Control and Maintenance	2020-2022

Date of Final Report Submission: 11/1/2023

Federal Funding:

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**

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.

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

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.

Total Amount of Request: \$ 1357000

Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$209,300	\$200,000	Private Foundation, USFWS, Private Foundation, N/A	\$409,300
Contracts	\$900,000	\$0		\$900,000
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	\$247,700	\$0		\$247,700
DNR IDP	\$0	\$0		\$0
Total	\$1,357,000	\$200,000		\$1,557,000

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Project Manager	0.50	4.00	\$118,400	\$50,000	Private Foundation	\$168,400
Forest Ecologist	0.75	4.00	\$82,400	\$150,000	USFWS, Private Foundation	\$232,400
Grants Coordinator	0.05	4.00	\$8,500	\$0	N/A	\$8,500
Total	1.30	12.00	\$209,300	\$200,000		\$409,300

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%

What is included in the contacts line?

Contracts will perform the majority of enhancement work. Contractors will be hired to conduct site preparation, tree planting, TSI, Direct seeding, and post planting care.

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.

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	1,290	0	1,290
Total	0	0	1,290	0	1,290

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	\$1,357,000	\$0	\$1,357,000
Total	\$0	\$0	\$1,357,000	\$0	\$1,357,000

Table 3. Acres within each Ecological Section

Type	Metro Urban	ForestPrairie	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	1,290	0	0	1,290
Total	0	0	1,290	0	0	1,290

Table 4. Total Funding within each Ecological Section

Type	Metro Urban	ForestPrairie	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	\$1,357,000	\$0	\$0	\$1,357,000
Total	\$0	\$0	\$1,357,000	\$0	\$0	\$1,357,000

Table 5. Average Cost per Acre by Resource Type

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$1052	\$0

Table 6. Average Cost per Acre by Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
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	\$1052	\$0	\$0

Automatic system calculation / not entered by managers

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

Dakota

Name	TRDS	Acres	Est Cost	Existing Protection?
Gores AMA DNR Fisheries	11517225	35	\$52,500	Yes

Goodhue

Name	TRDS	Acres	Est Cost	Existing Protection?
Garvin Brook USACE	10708201	100	\$60,000	Yes
Gores South USACE	11416214	602	\$180,600	Yes
Gores WMA USACE	11416210	55	\$27,700	Yes
North Lake USACE	11416224	378	\$113,400	Yes
Vermillion Bottoms MNDNR	11315208	400	\$600,000	Yes

Houston

Name	TRDS	Acres	Est Cost	Existing Protection?
Hayshore Lake/Reno Bottoms	10103219	300	\$300,000	Yes
Root River 1	10404235	150	\$160,000	Yes
Root River 2	10404236	100	\$50,000	Yes
Root River 3	10404236	270	\$135,000	Yes
Root River 4	10304201	80	\$40,000	Yes
Root River 6 North	10404222	54	\$54,000	Yes
Root River Barrier Islands 5	10304212	145	\$145,000	Yes
Root River South USACE	10404202	283	\$141,500	Yes

Wabasha

Name	TRDS	Acres	Est Cost	Existing Protection?
Wabasha Bottoms 1	11009220	134	\$134,000	Yes
Wabasha Bottoms 2	11009220	12	\$8,000	Yes
Whitewater Delta USACE	10909233	115	\$34,500	Yes
Winona District EAB Mitigation	10909209	72	\$100,000	Yes
Zumbro Bottoms Ag Conversion MNDNR	11011213	100	\$100,000	Yes
Zumbro Bottoms MNDNR	11011215	100	\$100,000	Yes

Winona

Name	TRDS	Acres	Est Cost	Existing Protection?
Garvin	10708202	200	\$175,000	Yes
Horseshoe Bend USACE	10808226	365	\$182,500	Yes
Richmond Island USACE	10605222	96	\$96,000	Yes
Whitewater WMA DNR	10710215	78	\$150,000	Yes

Section 2 - Protect Parcel List

No parcels with an activity type protect.

Section 2a - Protect Parcel with Bldgs

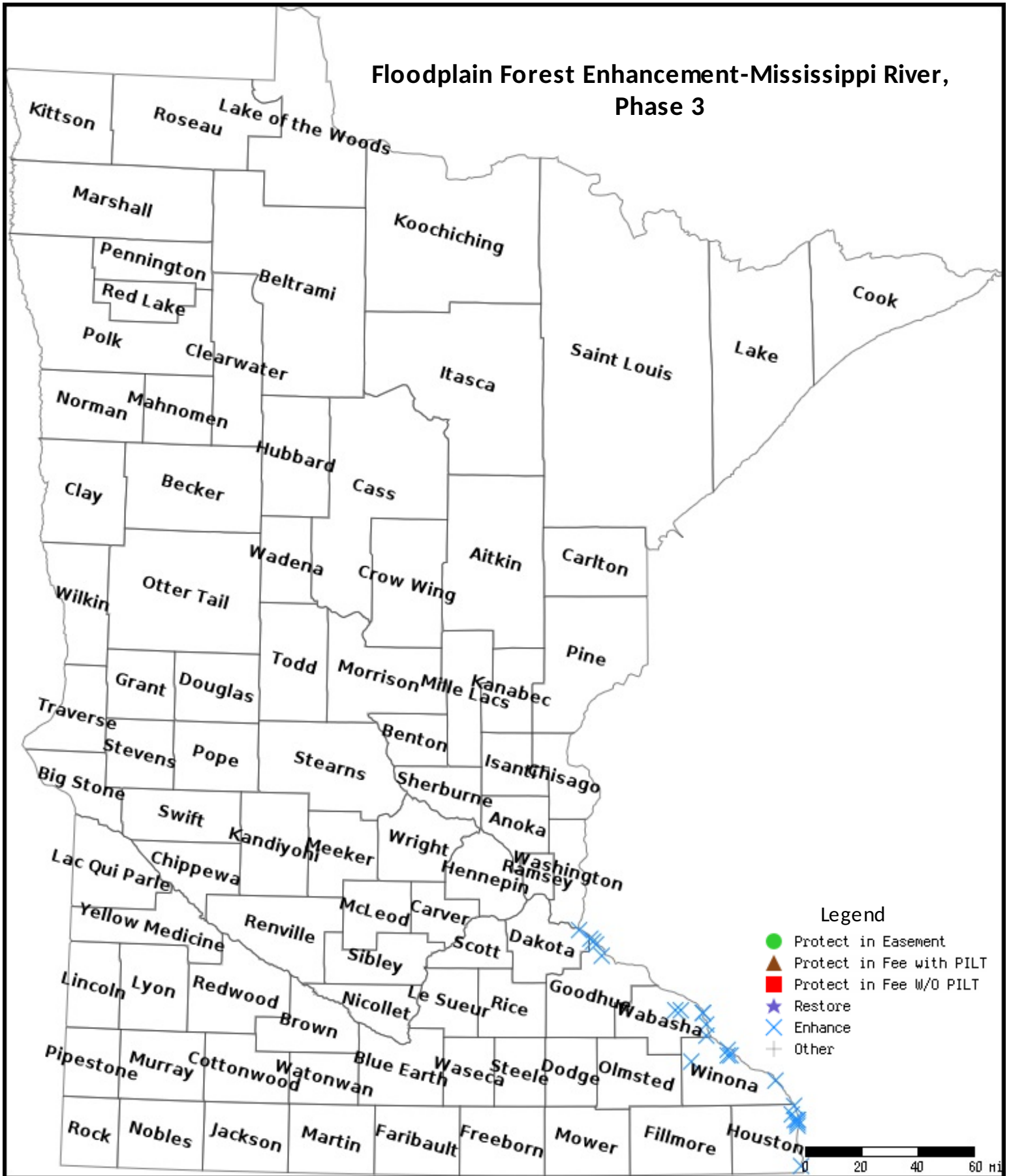
No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Parcel Map

Floodplain Forest Enhancement-Mississippi River, Phase 3



Data Generated From Parcel List

Lessard-Sams Outdoor Heritage Council Comparison Report

Program Title: 2019 - Floodplain Forest Enhancement-Mississippi River, Phase 3

Organization: Audubon Minnesota

Manager: Andrew Beebe

Budget

Requested Amount: \$4,505,000

Appropriated Amount: \$1,357,000

Percentage: 30.12%

Budget Item	Total Requested		Total Appropriated		Percentage of Request	
	LSOHC Request	Anticipated Leverage	Appropriated Amount	Anticipated Leverage	Percentage of Request	Percentage of Leverage
Personnel	\$525,000	\$250,000	\$209,300	\$200,000	39.87%	80.00%
Contracts	\$2,940,000	\$0	\$900,000	\$0	30.61%	-
Fee Acquisition w/ PILT	\$0	\$0	\$0	\$0	-	-
Fee Acquisition w/o PILT	\$0	\$0	\$0	\$0	-	-
Easement Acquisition	\$0	\$0	\$0	\$0	-	-
Easement Stewardship	\$0	\$0	\$0	\$0	-	-
Travel	\$0	\$0	\$0	\$0	-	-
Professional Services	\$0	\$0	\$0	\$0	-	-
Direct Support Services	\$0	\$0	\$0	\$0	-	-
DNR Land Acquisition Costs	\$0	\$0	\$0	\$0	-	-
Capital Equipment	\$40,000	\$0	\$0	\$0	0.00%	-
Other Equipment/Tools	\$0	\$0	\$0	\$0	-	-
Supplies/Materials	\$1,000,000	\$0	\$247,700	\$0	24.77%	-
DNR IDP	\$0	\$0	\$0	\$0	-	-
Total	\$4,505,000	\$250,000	\$1,357,000	\$200,000	30.12%	80.00%

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.

Output

Table 1a. Acres by Resource Type

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	0	0	-
Protect in Fee with State PILT Liability	0	0	-
Protect in Fee W/O State PILT Liability	0	0	-
Protect in Easement	0	0	-
Enhance	4,300	1,290	30.00%

Table 2. Total Funding by Resource Type

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	0	0	-
Protect in Fee with State PILT Liability	0	0	-
Protect in Fee W/O State PILT Liability	0	0	-
Protect in Easement	0	0	-
Enhance	4,505,000	1,357,000	30.12%

Table 3. Acres within each Ecological Section

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	0	0	-
Protect in Fee with State PILT Liability	0	0	-
Protect in Fee W/O State PILT Liability	0	0	-
Protect in Easement	0	0	-
Enhance	4,300	1,290	30.00%

Table 4. Total Funding within each Ecological Section

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	0	0	-
Protect in Fee with State PILT Liability	0	0	-
Protect in Fee W/O State PILT Liability	0	0	-
Protect in Easement	0	0	-
Enhance	4,505,000	1,357,000	30.12%