

Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2016 Accomplishment Plan



Date: October 15, 2015

Program or Project Title: Floodplain Forest Enhancement - Mississippi River, Phase 2

Funds Recommended: \$ 412,000

Manager's Name: Tim Schlagenhaft
Organization: Audubon Minnesota
Address: 2000 W. Main, Suite 333
City: Red Wing, MN 55066
Mobile Number: 651-764-4242
Email: tschlagenhaft@audubon.org

Legislative Citation:

Appropriation Language:

County Locations: Goodhue, Houston, and Wabasha.

Regions in which work will take place:

- Southeast Forest

Activity types:

- Enhance

Priority resources addressed by activity:

- Forest

Abstract:

Reed canary grass is preventing natural regeneration of trees and threatening floodplain forests and wildlife along the Mississippi. This effort builds on previous LSOHC funding to control reed canary grass and plant trees as part of a long-term effort.

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 tens of thousands of acres and are especially critical to many species of birds and other wildlife, including wood ducks which use these areas 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 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 continue to provide habitat for many wildlife species, including rare species like cerulean warbler and red-shouldered hawk.

This proposal seeks funding to continue implementing floodplain forest restoration and enhancement projects throughout the project area which includes the Mississippi River and lower ends of major tributaries. The number of sites needing enhancement or restoration

is extensive and will take many years of consistent work to restore. Sites identified in this proposal range from 20-115 acres in size. All sites are located on public lands within Minnesota state forests, WMA's, Upper Mississippi River National Wildlife and Fish Refuge, or Corps of Engineers owned lands. Each site is threatened by invasive species and natural regeneration of floodplain forest trees is not expected without aggressive management. Funding will be used to control invasive species, especially reed canary grass, using a combination of prescribed burns, mowing or forestry mulching, and herbicide applications. Past efforts to plant seedlings into existing reed canary grass fields have not been successful, so once invasive species are controlled larger-size trees suitable to each site will be planted, or direct seeding may be used to create high densities of seedlings. At some sites, timber stand improvement will be used to create small openings for diversifying forest species and age structure. Deer protection will be provided for planted trees when 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, US Fish and Wildlife Service, and Corps of Engineers foresters and wildlife managers and are locations under serious threat of losing the floodplain forest. All of the sites are on public lands open to hunting and fishing. Two of the sites are listed with limited hunting access. These are within areas closed to waterfowl hunting on the Upper Mississippi River National Wildlife and Fish Refuge. They are open to all legal hunting during other times of the year. Audubon Minnesota will serve as the project manager and coordinate the work and associated contracts. Much of the tree planting work will be done through Conservation Corps Minnesota. Audubon will work closely with state and federal managers to ensure all projects meet required standards and are part of the overall management goals for the landscape area. This work will be done in conjunction with additional partners including the US Fish and Wildlife Service, US Army Corps of Engineers, Prairie Island Indian Community, and US Geological Survey.

Crops:

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

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. Many floodplain forests along the Mississippi River and tributaries in Minnesota include areas of high biodiversity significance as identified in the MN County Biological Survey. Studies by the US Geological Survey along the Upper Mississippi River, a critical migration flyway for birds, have shown more species of songbirds use floodplain forests than adjacent upland forests. Species in greatest conservation need, 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.

What is the nature of urgency and why it is necessary to spend public money for this work as soon as possible:

As trees age and die, canopy disappears and areas become invaded by reed canarygrass. This aggressive invasive species out-competes native plants and prevents trees from regenerating naturally. Unless action is taken now and continues over the next several decades, much of the floodplain forest could be lost.

Describe the science based planning and evaluation model used:

The Upper Mississippi River Systemic Forest Stewardship plan prepared by the 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.

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

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

Which other plans are addressed in this proposal:

- National Audubon Society Top 20 Common Birds in Decline
- Upper Mississippi River Systemic Forest Stewardship Plan

Which LSOHC section priorities are addressed in this proposal:

Southeast Forest:

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

Relationship to other funds:

- Environmental and Natural Resource Trust Fund

A proposal was submitted to the LCCMR in May 2015 to fund research and monitoring to determine the most effective methods for controlling reed canary grass and regenerating trees. If approved, this funding source would compliment LSOHC funding and allow for both an implementation (LSOHC) and monitoring (LCCMR) component to this work.

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

Audubon has hired two full time professional staff to implement floodplain forest restoration projects along the Mississippi River. Funding from private donors and non-state grants is available to fund most of the staff salaries with limited funding for project implementation. However, significant funding for restoration/enhancement on a scale needed to sustain quality floodplain forests over time is not available from these sources. Outdoor Heritage Funding was provided to Audubon for this work during 2014-2017 and will allow us to complete projects on 125 acres. This proposal will significantly expand that work providing opportunities to restore an additional 385 acres that would otherwise not be possible.

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

Appropriation Year	Source	Amount
2013	Private donors and foundation grants	\$20,000
2014	Private donors, foundation grants, federal cost share	\$30,000

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

Project sites will 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. 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.

Explain the things you will do in the future to maintain project outcomes:

Year	Source of Funds	Step 1	Step 2	Step 3
2017	OHF, private donors, foundation grants	weed control		
2019	OHF, private donors, foundation grants	weed control, replace dead trees		
2022	private donors, foundation grants	weed control, replace dead trees		

Activity Details:

If funded, this proposal 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 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, Refuge Lands, State Forests)**

Accomplishment Timeline:

Activity	Approximate Date Completed
site preparation including reed canary grass control	2016, 2017
tree planting	2017, 2018, 2019
post treatment weed control	2018, 2019, 2020, 2021
timber stand improvement	2017, 2018, 2019, 2020, 2021

Date of Final Report Submission: 6/30/2021

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 - **January 2016**

Outcomes:

Programs in southeast forest region:

- Large corridors and complexes of biologically diverse wildlife habitat typical of the unglaciated region are restored and protected *This project will ensure floodplain forests remain intact within the corridor of the Mississippi River. Sustaining existing quantities of floodplain forest by diversifying age and size structure will be a successful outcome and can be measured by land cover information.*

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

We will complete projects on fewer acres than listed in the original proposal, and will shift more staff time funded by the grant to our Forest Ecologist position.

Total Amount of Request: \$ 412000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$89,000	\$86,000	USFWS, private donors, foundation grants, private donors, foundation grants	\$175,000
Contracts	\$164,000	\$0		\$164,000
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	\$159,000	\$0		\$159,000
DNR IDP	\$0	\$0		\$0
Total	\$412,000	\$86,000		\$498,000

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Forest Ecologist - Audubon	0.25	3.00	\$48,000	\$48,000	USFWS, private donors, foundation grants	\$96,000
Conservation Coordinator - Audubon	0.15	3.00	\$38,000	\$38,000	private donors, foundation grants	\$76,000
Administrative Assistant	0.00	0.00	\$3,000	\$0		\$3,000
Total	0.40	6.00	\$89,000	\$86,000		\$175,000

Amount of Request: \$412,000

Amount of Leverage: \$86,000

Leverage as a percent of the Request: 20.87%

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	385	0	385
Total	0	0	385	0	385

Table 2. Total Requested 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	\$412,000	\$0	\$412,000
Total	\$0	\$0	\$412,000	\$0	\$412,000

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	385	0	0	385
Total	0	0	385	0	0	385

Table 4. Total Requested 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	\$412,000	\$0	\$0	\$412,000
Total	\$0	\$0	\$412,000	\$0	\$0	\$412,000

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	\$1070	\$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	\$1070	\$0	\$0

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?
Gores WMA	11416210	30	\$81,000	Yes

Houston

Name	TRDS	Acres	Est Cost	Existing Protection?
Lower 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	\$87,000	Yes
Wabasha Prairie Bottoms	11009230	75	\$19,000	Yes
Whitewater River Delta	10909229	40	\$35,000	Yes

Section 2 - Protect Parcel List

No parcels with an activity type protect.

Section 2a - Protect Parcel with Bldgs

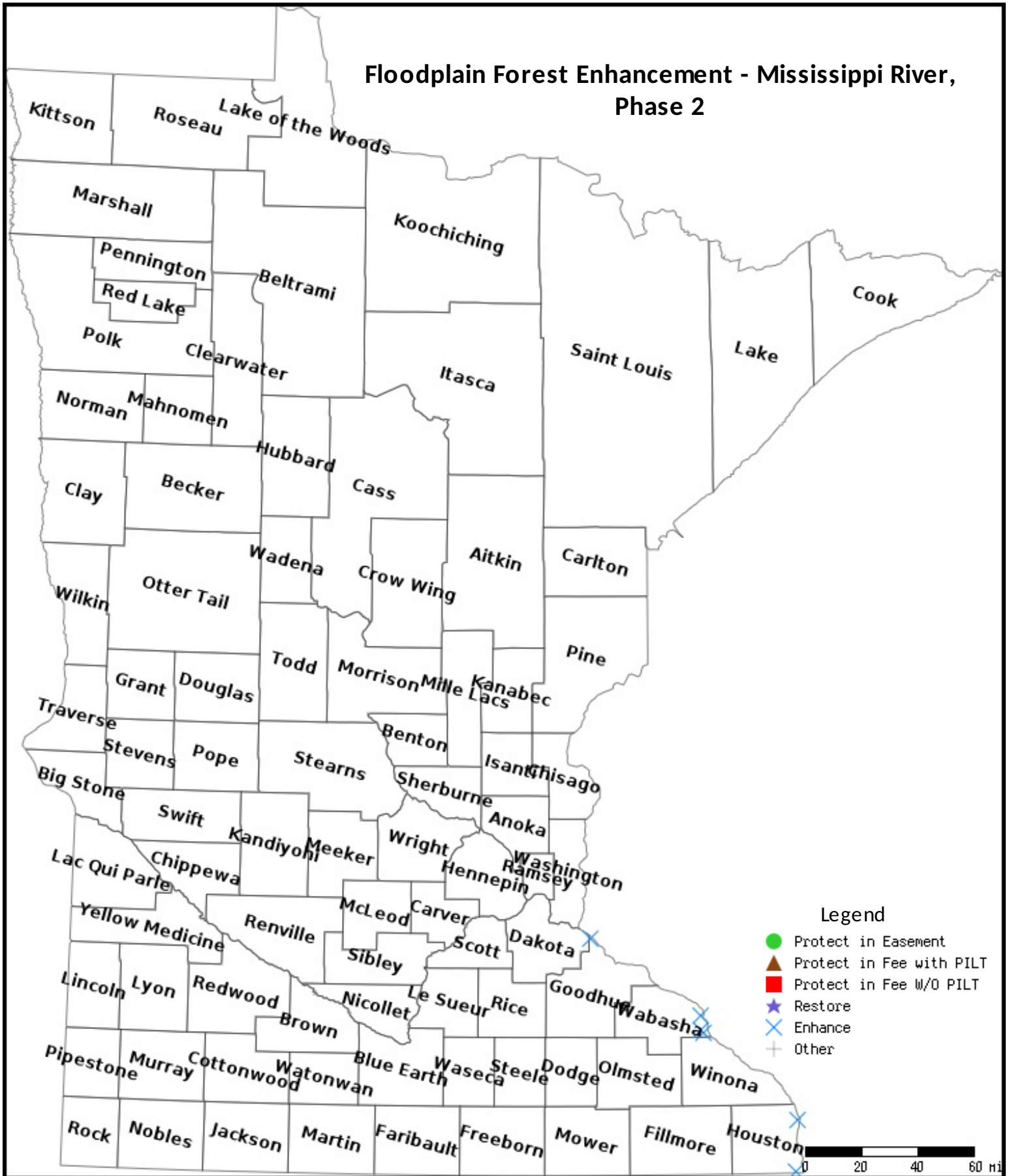
No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Parcel Map

Floodplain Forest Enhancement - Mississippi River, Phase 2



Data Generated From Parcel List

Lessard-Sams Outdoor Heritage Council Comparison Report

Program Title: 2016 - Floodplain Forest Enhancement - Mississippi River, Phase 2

Organization: Audubon Minnesota

Manager: Tim Schlagenhaft

Budget

Requested Amount: \$663,000

Appropriated Amount: \$412,000

Percentage: 62.14%

Budget Item	Total Requested		Total Appropriated		Percentage of Request	
	LSOHC Request	Anticipated Leverage	Appropriated Amount	Anticipated Leverage	Percentage of Request	Percentage of Leverage
Personnel	\$80,000	\$77,000	\$89,000	\$86,000	111.25%	111.69%
Contracts	\$289,000	\$0	\$164,000	\$0	56.75%	-
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	\$0	\$0	\$0	\$0	-	-
Other Equipment/Tools	\$0	\$0	\$0	\$0	-	-
Supplies/Materials	\$294,000	\$0	\$159,000	\$0	54.08%	-
DNR IDP	\$0	\$0	\$0	\$0	-	-
Total	\$663,000	\$77,000	\$412,000	\$86,000	62.14%	111.69%

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

We will complete projects on fewer acres than listed in the original proposal, and will shift more staff time funded by the grant to our Forest Ecologist position.

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	595	385	64.71%

Table 2. Total Requested 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	663,000	412,000	62.14%

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	595	385	64.71%

Table 4. Total Requested 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	663,000	412,000	62.14%