



# Lessard-Sams Outdoor Heritage Council

## Laws of Minnesota 2019 Accomplishment Plan

**Date:** October 12, 2018

**Program or Project Title:** Sauk River Dam Fish Passage

**Funds Recommended:** \$ 737,000

**Manager's Name:** Greg Berg  
**Organization:** Stearns County SWCD  
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**Legislative Citation:** ML 2019, Ch. X, Art. 1, Sec. 2, subd, X(x)

**Appropriation Language:**

**County Locations:** Stearns

**Eco regions in which work will take place:**

- Prairie

**Activity types:**

- Enhance
- Restore

**Priority resources addressed by activity:**

- Habitat

### Abstract:

The Sauk River Dam in Melrose will be modified into a rapids, creating fish passage between the 53.7 miles of river downstream to over 16 miles of river upstream. An additional 500 feet of heavily modified stream and adjacent floodplain downstream from the dam will also be restored. The project will benefit fish species such as walleye, smallmouth bass, and channel catfish. Rare mussel species (black sandshell and creek heelsplitter) not currently found in the reach above Melrose will also benefit. The upcoming replacement of an adjacent bridge creates a unique opportunity to complete this project.

### Design and scope of work:

The Stearns County Soil and Water Conservation District (Stearns SWCD) proposes to partner with the Minnesota Department of Natural Resources (MN DNR) and the City of Melrose to modify the Sauk River Dam at Melrose into a rapids to allow passage of fish and other aquatic life. An additional 500 feet of river downstream of the dam and 2 acres of floodplain would also be restored. The city of Melrose owns the dam, and is supportive of modifying the dam to improve the river through this reach, and has dedicated \$500,000 to the project as cash match. Stearns SWCD provides local expertise in the implementation of restoration projects, and will serve as project manager. The City of Melrose, with SWCD oversight, will contract with a design consultant, hire a construction firm to complete the project, and oversee construction. MN DNR will assist with conceptual design, provide review of project plans to be completed by a consultant, and assist with construction oversight.

The County Road 13 bridge adjacent to the current Sauk River Dam is scheduled to be removed in 2019. If the dam is removed during the same project time frame as the bridge reconstruction, it is estimated that \$500,000 - \$750,000 will be saved. In addition, the

environmental impacts would be greatly reduced by having the disturbance in the river and adjacent floodplain from both projects occur simultaneously. The reach is presently modified by concrete walls and rip-rap. Restoring this reach of the Sauk River will create quality habitat locally, and access to over 16 miles of habitat upstream.

MN DNR has been involved with numerous dam removal projects similar to this one. In place of the dam, a rapids will be built to gradually step the river bed down from the upstream reservoir pool to the riverbed downstream. Arches of boulders are integrated into the rapids to provide resting places for migrating fish, and to keep the highest flow velocity in the center of the rapids. Once constructed, there is generally little maintenance required. The City of Melrose has committed to providing any future maintenance that is needed once OH funding expires.

Numerous fish species including walleye, smallmouth bass, and channel catfish will benefit from connectivity between the two stream reaches. Neither smallmouth bass nor channel catfish are currently found upstream of the Melrose Dam, despite suitable habitat. Walleye numbers are considerably lower upstream of the dam than in downstream reaches. Black sandshell and creek heelsplitter are mussel species that are currently found downstream of the dam but not in the reach upstream. Removing the dam will create access for them to recolonize suitable habitat upstream, as has been seen in other similar projects in Minnesota.

### **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:**

This project will create access to over 16 miles of suitable habitat for black sandshell and creek heelsplitter mussels. Both are listed as species of special concern by the State of Minnesota, as well as species of greatest conservation need. Both species are found in the reach downstream, but not in the reach upstream of the dam. Similar fish passage projects have resulted in recolonization by downstream mussel species.

### **Describe the science based planning and evaluation model used:**

This project will reduce fragmentation of the Sauk River, connecting over 53 miles of river downstream with over 16 miles of river upstream. Fish passage between these two reaches will allow fish, mussels, and other aquatic species to migrate between key habitats such as spawning and overwintering. This will better allow them to complete all stages of their life cycle in appropriate habitats, enhancing the success of the aquatic community found in this river.

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

- H2 Protect critical shoreland of streams and lakes
- H6 Protect and restore critical in-water habitat of lakes and streams

### **Which other plans are addressed in this program:**

- Minnesota DNR Strategic Conservation Agenda
- Minnesota Department of Natural Resources Fish Habitat Plan

### **Which LSOHC section priorities are addressed in this program:**

#### **Prairie:**

- Protect, enhance, or restore existing wetland/upland complexes, or convert agricultural lands to new wetland/upland habitat complexes

### **Relationship to other funds:**

- City of Melrose

### **Describe the relationship of the funds:**

City of Melrose has levied funds for the project.

### **Does this program include leverage in funds:**

Yes

City of Melrose has a general levy commitment of \$500,000 in matching funds for the project. Also a preliminary commitment from the LCCMR of \$2,768,000.

**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:**

The Stearns County SWCD is continually working with partners for funding restoration work within the immediate Sauk River Watershed and Stearns County. These sources include CWF, USFWS, CPL as well as other natural resource and conservation programs.

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

Appropriation Year	Source	Amount
2013	BWSR CWF Thiel Creek	\$46,624
2017	BWSR State Cost Share	\$36,814
2018	BWSR Buffer Funds	\$60,000
2015	BWSR CWF Middle Sauk River	\$210,000
2015	BWSR CWF Cold Spring	\$137,050
2017	USFWS Midwest Glacial Lakes	\$63,000
2015	BWSR CWF Rice Lake	\$243,750
2013	BWSR CWF SRWD Sauk River Whitney Park	\$149,191
2014	MPCA CWP SRWD Sauk River Whitney Park	\$49,284
2015	BWSR Farm Bill Assistance	\$45,000
2016	BWSR Buffer Funds	\$35,000
2016	BWSR State Cost Share	\$36,814
2016	BWSR CWF Two Rivers Lake	\$187,983
2017	BWSR Conservation Delivery	\$22,030
2017	BWSR Farm Bill Assistance	\$58,500
2017	BWSR Buffer Funds	\$35,000
2017	BWSR CWF Sauk River Chain Of Lakes	\$150,000

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

Dam removals are advantageous as compared to other types of habitat projects in that they do not require maintenance once completed. The restored stream channel is planned to have three years of vegetation maintenance to allow establishment of native plants. Once that finished, maintenance work is expected to be minimal and will be the responsibility of the City of Melrose through their municipal funds.

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

Year	Source of Funds	Step 1	Step 2	Step 3
2021	OHF	Control invasive species in riparian areas		
2022	OHF	Following initial high flow, inspect rapids to see if any adjustments are needed.		
2022	OHF	Control invasive species in riparian areas		
2023	OHF	Control invasive species in riparian areas		
Ongoing	City of Melrose	Maintain native vegetation in riparian area, inspect rapids for any issues needing 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 (County/Municipal, Public Waters)**

### Accomplishment Timeline:

Activity	Approximate Date Completed
Site surveying and project design.	December 2019
Permitting and environmental review	May 2020
Construction	November 2021
Floodplain vegetation maintenance	June 2024

Date of Final Report Submission: 6/30/2024

### Federal Funding:

Do you anticipate federal funds as a match for this program - **No**

### Outcomes:

#### Programs in prairie region:

- Protected, restored, and enhanced habitat for migratory and unique Minnesota species MN DNR conducts periodic surveys of the Sauk River. Future surveys will compare fish and mussel populations to assess the benefit of the removal of the dam. We expect that rare mussel species currently absent upstream of the dam will become established. Channel catfish and smallmouth bass will become established upstream of the dam, and walleye abundance will increase. All of these species must migrate between different habitats (e.g., spawning, over-wintering) in order to complete their life processes. Catch per hour rates for different species will be compared between pre and post-removal time periods.

# 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**

LCCMR is contributing the balance of the proposed funding needed for the project.

**Total Amount of Request: \$ 737000**

## Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$17,600	\$0		\$17,600
Contracts	\$719,400	\$3,268,000	City of Melrose & LCCMR	\$3,987,400
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	\$0	\$0		\$0
DNR IDP	\$0	\$0		\$0
Total	\$737,000	\$3,268,000		\$4,005,000

## Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
	0.04	3.00	\$17,600	\$0		\$17,600
Total	0.04	3.00	\$17,600	\$0		\$17,600

Amount of Request: \$737,000  
 Amount of Leverage: \$3,268,000  
 Leverage as a percent of the Request: 443.42%  
 DSS + Personnel: \$17,600  
 As a % of the total request: 2.39%

### What is included in the contacts line?

Contracting for the removal of the existing dam, channel restoration, adjacent floodplain and upland restoration as well as the construction of the rock arch rapids fish passage.

### Describe and explain leverage source and confirmation of funds:

LCCMR commitment of \$2,768,000. City of Melrose general levy funds of \$500,000.

## Output Tables

**Table 1a. Acres by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	2	2
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	0	192	192
Total	0	0	0	194	194

**Table 2. Total Funding by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$737,000	\$737,000
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	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$737,000	\$737,000

**Table 3. Acres within each Ecological Section**

Type	Metro Urban	ForestPrairie	SE Forest	Prairie	N Forest	Total
Restore	0	0	0	2	0	2
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	0	192	0	192
Total	0	0	0	194	0	194

**Table 4. Total Funding within each Ecological Section**

Type	Metro Urban	ForestPrairie	SE Forest	Prairie	N Forest	Total
Restore	\$0	\$0	\$0	\$737,000	\$0	\$737,000
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	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$737,000	\$0	\$737,000

**Table 5. Average Cost per Acre by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$0	\$368500
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	\$0	\$0

**Table 6. Average Cost per Acre by Ecological Section**

Type	Metro /Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$0	\$0	\$0	\$368500	\$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	\$0	\$0	\$0

*Automatic system calculation / not entered by managers*

**Target Lake/Stream/River Feet or Miles**

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# 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

Stearns

Name	TRDS	Acres	Est Cost	Existing Protection?
Sauk River	12633234	2	\$890,000	Yes
Sauk River Dam	12633234	192	\$2,615,600	Yes

## Section 2 - Protect Parcel List

No parcels with an activity type protect.

### Section 2a - Protect Parcel with Bldgs

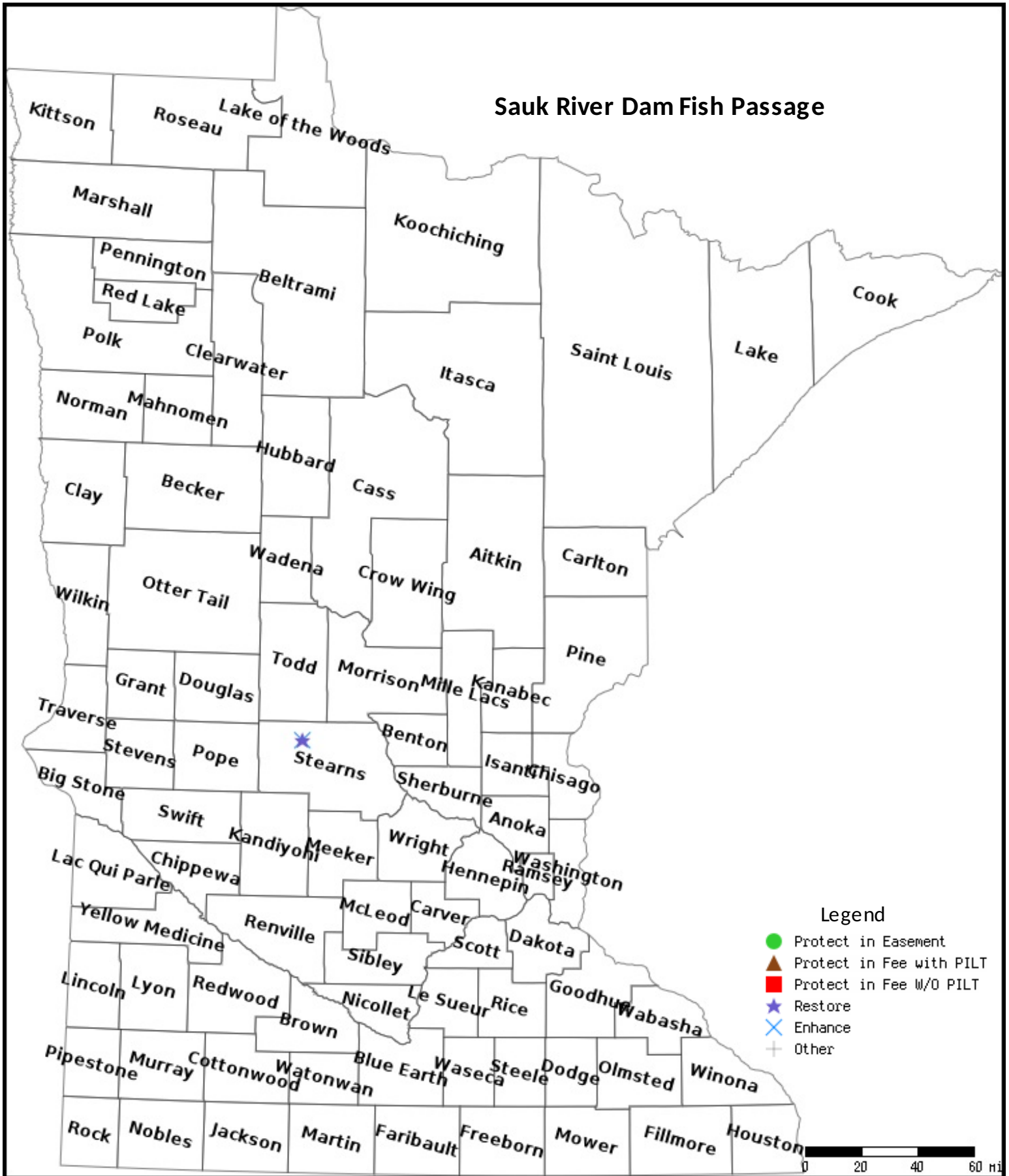
No parcels with an activity type protect and has buildings.

## Section 3 - Other Parcel Activity

No parcels with an other activity type.



# Parcel Map



Data Generated From Parcel List

# Lessard-Sams Outdoor Heritage Council Comparison Report

**Program Title:** 2019 - Sauk River Dam Fish Passage

**Organization:** Stearns County SWCD

**Manager:** Greg Berg

## Budget

Requested Amount: \$3,505,600

Appropriated Amount: \$737,000

Percentage: 21.02%

Budget Item	Total Requested		Total Appropriated		Percentage of Request	
	LSOHC Request	Anticipated Leverage	Appropriated Amount	Anticipated Leverage	Percentage of Request	Percentage of Leverage
Personnel	\$17,600	\$0	\$17,600	\$0	100.00%	-
Contracts	\$3,488,000	\$500,000	\$719,400	\$3,268,000	20.63%	653.60%
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	\$0	\$0	\$0	\$0	-	-
DNR IDP	\$0	\$0	\$0	\$0	-	-
<b>Total</b>	<b>\$3,505,600</b>	<b>\$500,000</b>	<b>\$737,000</b>	<b>\$3,268,000</b>	<b>21.02%</b>	<b>653.60%</b>

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

LCCMR is contributing the balance of the proposed funding needed for the project.

# Output

**Table 1a. Acres by Resource Type**

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	2	2	100.00%
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	192	192	100.00%

**Table 2. Total Funding by Resource Type**

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	890,000	737,000	82.81%
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	2,615,600	0	0.00%

**Table 3. Acres within each Ecological Section**

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	2	2	100.00%
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	192	192	100.00%

**Table 4. Total Funding within each Ecological Section**

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	890,000	737,000	82.81%
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	2,615,600	0	0.00%