Lessard-Sams Outdoor Heritage Council

Protection and Resiliency in the Rainy River Headwaters

Laws of Minnesota 2027 Accomplishment Plan

General Information

Date: 10/06/2026

Project Title: Protection and Resiliency in the Rainy River Headwaters

Funds Recommended: $1,975,000

Legislative Citation:

Appropriation Language:

Manager Information

Manager's Name: Robert Kimmel-Hass
Title: County Engineer
Organization: Cook County
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Location Information

County Location(s): Cook.

Eco regions in which work will take place:

Northern Forest

Activity types:

Restore

Priority resources addressed by activity:

Habitat

Narrative

Abstract

The project will improve cold-water streams and wetland connectivity in the Rainy River headwaters by replacing at least 16 undersized or deteriorated culverts in the Saganaga Lake and Granite River sub-watersheds. These crossings support critical habitat for aquatic species. As part of a countywide effort with local and state partners, the project will install properly sized culverts to enhance fish passage, improve watershed connectivity, reduce sediment and erosion, improve climate resilience, and protect long-term water quality at the Rainy River Headwaters.

Design and Scope of Work

Northeast Minnesota contains many pristine lakes and and rivers which support robust populations of wild trout and other sensitive or semi-rare aquatic organisms. Healthy trout populations are significant to aquatic ecosystems, recreational fishing, and an indicator of healthy watersheds. Ecological functions of streams are diminished by roads, development, and impairments that degrade the aquatic ecosystem leading to reductions in trout populations. Tributaries provide critical services by providing thermal refugia to trout populations.

The proposed project in the Rainy River headwaters identified at least 16 culverts for replacements. Four of these culverts carry named streams (Seagull Creek and Larch Creek) while the remaining provide critical watershed connectivity. The Rainy Headwaters-Vermillion One Watershed One Plan (RH-V 1W1P) identified approximately 208,000 acres of the Rainy River Headwaters Watershed in Cook County. The proposed protection and resiliency project would impact the watershed at multiple scales. Excavation and culvert replacement occurs over approximately 2 acres that would immediately improve 4.6 miles of named streams and many unnamed tributaries. Once these 16 culverts are replaced, according to StreamStats (https://streamstats.usgs.gov/ss/), they will indirectly positively affect about a quarter of the Rainy River Watershed (50,000 acres) based on an analysis of each culvert basin along with about 80 lakes.

Right sizing culverts prevents sediment loading and erosion which can be seen all throughout this corridor and watershed basin. Perched culvert bottoms prevent aquatic organism passage (AOP) which is the ability for fish and other aquatic organisms to migrate and swim freely upstream and downstream through or beneath human infrastructure such as culverts, bridge, diversions, dams, etc. The sizing of these culverts will be determined from a robust hydraulic analysis along with following geomorphic design guidance. The new crossings will meet AOP guidelines and also be more climate resilient. The new culverts will also improve watershed connectivity as seen in the attached illustration.

Cook County and Cook County Soil and Water Conservation District (Cook SWCD), with input from the local MN DNR fisheries, agree that right-sizing crossings will be the most beneficial for the water quality and aquatic habitat. This project is directly in line with the MN DNR Fisheries priorities of restoring fish passage in our streams. 80 lakes and 4.6 miles of streams would be positively impacted by this project. These waterbodies house a variety of organisms from trout, walleye, and pike, to small micro-invertebrates. The interconnectedness of this system provides a healthy habitat and thus a healthy ecosystem where the RH-V 1W1P has identified the region as one to protect and enhance.

The current crossings are impeding AOP, pinching the two named rivers at four locations, causing flooding and sediment loading, prohibit watershed connectivity, and are not resilient to climate change. Right-sizing these crossings will provide better watershed connectivity, increased climate resilience to more frequent storm events, and be in line with the watershed plan's goal of protecting and enhancing the watershed.

Explain how the plan addresses habitat protection, restoration, and/or enhancement for fish, game & wildlife, including threatened or endangered species conservation

Currently, at least 16 culverts have been identified for replacement. These culverts are prohibiting watershed connectivity and in some cases are undersized, causing bank erosion, sediment loading, and preventing AOP. Watershed connectivity and removing barriers is identified in the RH-V 1W1P as a key priority. The new structures will be right-sized based on a robust hydraulic analysis and meeting geomorphic design guidelines. These will be able to handle larger and more frequent flood events. Engineering final design work is already underway with the preliminary design already completed by Cook County. The new crossings will create more connectivity in the watershed which leads to a healthier ecosystem that will benefit the surrounding environment. Approximately 50,000 acres of the watershed will be positively affected, along with 4.6 miles of streams, and 80 lakes.

What are the elements of this plan that are critical from a timing perspective?

With increased precipitation in rain and snow melt events, it is important to be proactive and complete the work now before additional issues arise. Work has already begun to design these crossings to meet AOP needs and if this project doesn't happen now then resources will have been expended for nothing and the problems associated with increased sediment loading, impaired watershed connectivity, lack of AOP, and increased erosion will continue. The proposed project is part of a larger road construction project so by combining the two there will be savings in mobilization costs as well as a minimizing of environmental disturbance by doing all the work at once. Cook County is working on the final design as we speak and the project is construction ready within 6 months of appropriation.

Describe how the plan expands habitat corridors or complexes and/or addresses habitat fragmentation:

At least 16 crossings connect approximately 50,000 acres of the Rainy River watershed near its headwaters. The culverts are prohibiting watershed connectivity and are undersized in some cases causing barriers for AOP. By replacing and right-sizing these culverts, the project protects against habitat fragmentation. The new structures will create a more resilient habitat as well by being designed to handle more extreme weather events. The project will better protect and connect 50,000 acres of the watershed, 4.6 miles of streams, and 80 lakes will all benefit from this.

Which top 2 Conservation Plans referenced in MS97A.056, subd. 3a are most applicable to this project?

Minnesota's Wildlife Action Plan 2015-2025

Other : Rainy Headwaters-Vermillion, One Watershed One Plan

Which LSOHC section priorities are addressed in this program?

Northern Forest

Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas

Outcomes

Programs in the northern forest region:

Improved aquatic habitat indicators ~ *The project will eliminate wetland connectivity barriers and impediments for AOP in 50,000 acres of RRHW watershed, 4.6-mi of streams, and positively impact at least 80 lakes. A hydraulic*

analysis of the area, along with following geomorphic design guidelines, will right-size the culverts and create a better habitat and more climate resilient watershed.

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.

These funds are not supplanting or substituting previous funds allocated for this project.

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

The project is part of a larger countywide effort to protect water quality. The crossings in this project will allow the river and watershed to be restored to a more natural state and will be maintained by Cook County for the lifespan of the structure and any subsequent replacements into perpetuity.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2028 and beyond	local	initial installation	document observations	continue inspections and documentation for lifespan of structure

Provide an assessment of how your program celebrates cultural diversity or reaches diverse communities in Minnesota, including reaching low- and moderate-income households:

Enhancing and protecting water quality is in direct alignment with the goals set out by the 1854 Treaty Authority to protect, preserve, and enhance the hunting, fishing and gathering rights of the Grand Portage and Bois Forte bands of Lake Superior Chippewa in the 1854 Treaty area. This project occurs within the 1854 Treaty area in NE MN. By improving the water quality, creating better fish habitat, and reducing bank erosion this project is directly benefiting the Grand Portage and Bois Forte bands of Lake Superior Chippewa.

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 or on lands to be acquired in this program?
Yes

Where does the activity take place?

Public Waters

County/Municipal

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program, either by the proposer or the end owner of the property, outside of the initial restoration of the land?
No

Will insecticides or fungicides (including neonicotinoid and fungicide treated seed) be used within any activities of this program either in the process of restoration or use as food plots?
No

Timeline

Activity Name	Estimated Completion Date
End construction	October 2028
Begin construction	June 2028
Bid letting	December 2027
Design, engineering, permitting	September 2027

Date of Final Report Submission: 10/01/2029

Availability of Appropriation: Subd. 7. Availability of Appropriation
(a) Money appropriated in this section may not be spent on activities unless they are directly related to and necessary for a specific appropriation and are specified in the accomplishment plan approved by the Lessard-Sams Outdoor Heritage Council. Money appropriated in this section must not be spent on indirect costs or other institutional overhead charges that are not directly related to and necessary for a specific appropriation. Money appropriated for fee title acquisition of land may be used to restore, enhance, and provide for public use of the land acquired with the appropriation. Public-use facilities must have a minimal impact on habitat in acquired lands.
(b) Money appropriated in this section is available as follows:
(1) money appropriated for acquiring real property is available until June 30, 2031;
(2) money appropriated for restoring and enhancing land acquired with an appropriation in this section is available for four years after the acquisition date with a maximum end date of June 30, 2035;
(3) money appropriated for restoring or enhancing other land is available until June 30, 2032;
(4) notwithstanding clauses (1) to (3), money appropriated for a project that receives at least 15 percent of its funding from federal funds is available until a date sufficient to match the availability of federal funding to a maximum of six years if the federal funding was confirmed and included in the original approved draft accomplishment plan; and
(5) money appropriated for other projects is available until the end of the fiscal year in which it is appropriated.

Budget

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

Totals

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	-	$230,000	county levy	$230,000
Contracts	$1,975,000	$2,855,000	state and federal	$4,830,000
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	-	-	-	-
DNR IDP	-	-	-	-
Grand Total	**$1,975,000**	**$3,085,000**	**-**	**$5,060,000**

Personnel

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
Cook County Engineer	1.0	1.0	-	$30,000	county levy	$30,000
Cook County inspector	2.0	1.0	-	$200,000	county levy	$200,000

Amount of Request: $1,975,000
Amount of Leverage: $3,085,000
Leverage as a percent of the Request: 156.2%
DSS + Personnel: -
As a % of the total request: 0.0%
Easement Stewardship: -
As a % of the Easement Acquisition: -

How will this program accommodate the reduced appropriation recommendation from the original proposed requested amount?
Other state and federal funding sources will be pursued. If not secured, then less crossings will be replaced.

Detail leverage sources and confirmation of funds:
PROTECT ($420,000) secured. LRIP ($1,500,000) secured. Bridge bonds (hydraulic analysis will determine dollar amount) pending. Rainy River Headwater (waiting on meeting) pending.

Does this project have the ability to be scalable?
Yes

If the project received 50% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?
The proposed project could be broken down by crossing size: bridges, large culverts, and wetland connectors. A final hydraulic analysis will determine which crossings become bridges and which remain larger culverts. Reduced funding could just go towards one of these categories but the remainder of those crossings would unfunded.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?
Personnel costs would decrease with less crossings to inspect.

Contracts

What is included in the contracts line?
culverts, bridge structures, aprons, mobilizing equipment, removing existing crossings, excavation of fill material, stream bank restoration, stream diversion, rip rap, fill material, culvert bedding, culvert liners

Federal Funds

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

Are the funds confirmed?
Yes

Other : competitive grant

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	-	-	-	50,000	50,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-
Total	**-**	**-**	**-**	**50,000**	**50,000**

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	$1,975,000	$1,975,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-
Total	**-**	**-**	**-**	**$1,975,000**	**$1,975,000**

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	-	-	-	-	50,000	50,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	-	-
Total	**-**	**-**	**-**	**-**	**50,000**	**50,000**

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	$1,975,000	$1,975,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	-	-
Total	**-**	**-**	**-**	**-**	**$1,975,000**	**$1,975,000**

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	$39
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	-	-	-	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	-	$39
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-

Target Lake/Stream/River Feet or Miles

4.6

Parcels

Parcel Information

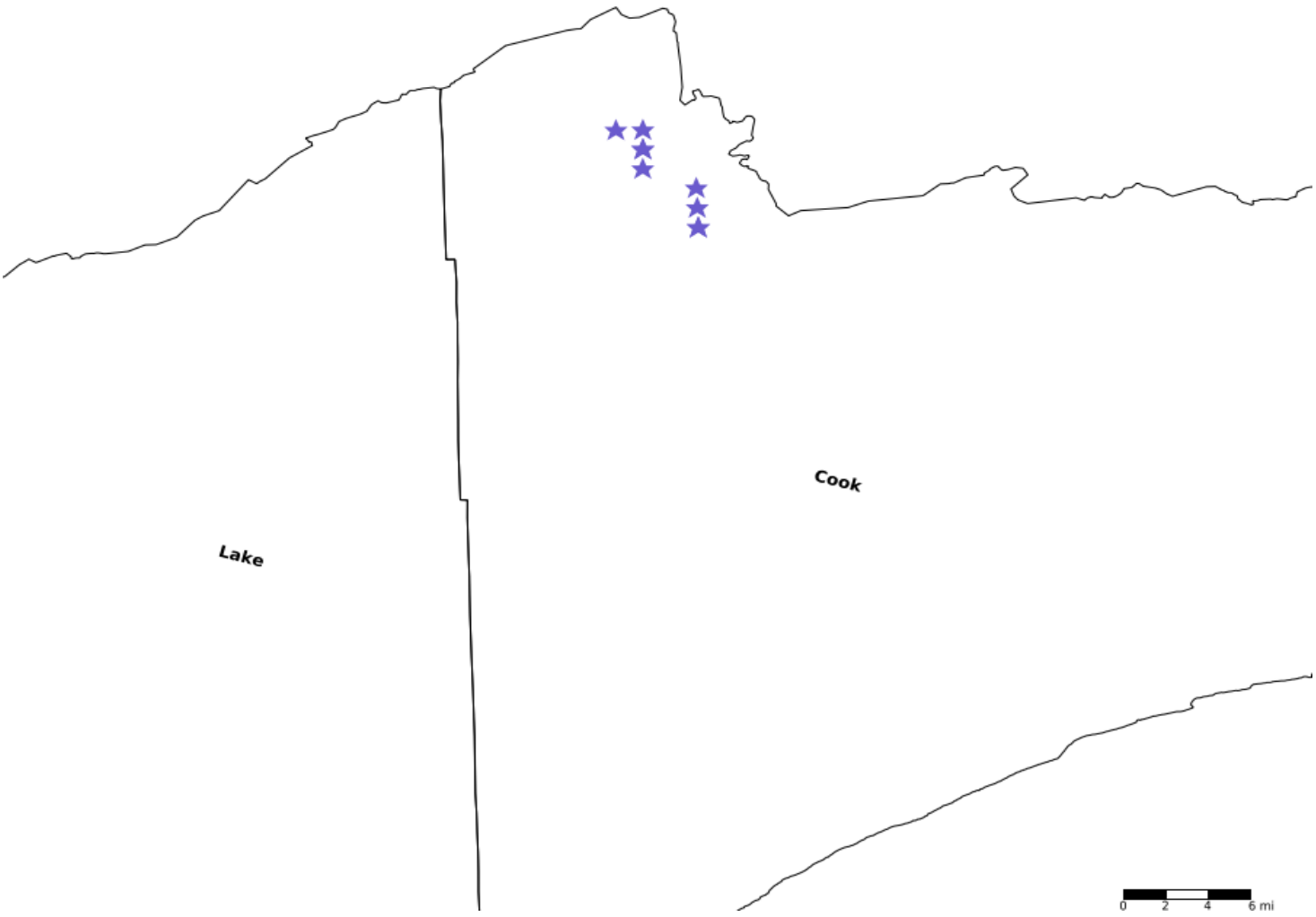
Sign-up Criteria?
No

Explain the process used to identify, prioritize, and select the parcels on your list:
The parcels identified below are the locations of the culverts. Some parcels have multiple culverts and their basin acreage and costs were added together.

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection	Description
C11: Tax Parcel ID: 49-505-4100	Cook	06504205	1	$65,505	Yes	replace culvert
C12: Tax Parcel ID: 49-505-1400	Cook	06504205	1	$65,505	Yes	replace culvert
C13, C14, C15: Tax Parcel ID: 49-632-1200	Cook	06604232	210	$196,515	Yes	replace culverts
C16: Tax Parcel ID: 49-631-1100	Cook	06604231	294	$65,505	Yes	replace culvert
C1: Tax Parcel ID: 49-527-1400	Cook	06504227	45,440	$65,505	Yes	replace culvert
C2: Tax Parcel ID: 49-527-1200	Cook	06504227	136	$65,505	Yes	replace culvert
C3, C4, C5, C6: Tax Parcel ID: 49-522-1100	Cook	06504222	952	$1,441,518	Yes	replace culverts
C7 & C8: Tax Parcel ID: 49-515-1100	Cook	06504215	627	$780,505	Yes	replace culverts
C9 & C10: Tax Parcel ID: 49-508-1100	Cook	06504208	2,544	$899,216	Yes	replace culverts

Parcel Map


Cook
Lake
0 2 4 6 mi
Protect in Easement
Protect in Fee with PILT
Protect in Fee W/O PILT
Restore
Enhance
Other

Lessard-Sams Outdoor Heritage Council

Protection and Resiliency in the Rainy River Headwaters

Comparison Report

Program Title: ML 2027 - Protection and Resiliency in the Rainy River Headwaters
Organization: Cook County
Manager: Robert Kimmel-Hass

Budget

Requested Amount: $3,000,000
Appropriated Amount: $1,975,000
Percentage: 65.83%

Item	Requested Proposal	Leverage Proposal	Appropriated AP	Leverage AP	Percent of Request	Percent of Leverage
Personnel	-	$230,000	-	$230,000	-	100.0%
Contracts	$3,000,000	$1,037,000	$1,975,000	$2,855,000	65.83%	275.31%
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	-	-	-	-	-	-
DNR IDP	-	-	-	-	-	-
Grand Total	**$3,000,000**	**$1,267,000**	**$1,975,000**	**$3,085,000**	**65.83%**	**243.49%**

If the project received 70% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?
The proposed project could be broken down by crossing size: bridges, large culverts, and wetland connectors. A final hydraulic analysis will determine which crossings become bridges and which remain larger culverts. Reduced funding could just go towards one of these categories but the remainder of those crossings would unfunded.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?
Personnel costs would decrease with less crossings to inspect.

If the project received 50% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?
The proposed project could be broken down by crossing size: bridges, large culverts, and wetland connectors. A final hydraulic analysis will determine which crossings become bridges and which remain larger culverts. Reduced funding could just go towards one of these categories but the remainder of those crossings would unfunded.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?
Personnel costs would decrease with less crossings to inspect.

Output

Acres by Resource Type (Table 1)

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	50,000	50,000	100.0%
Protect in Fee with State PILT Liability	0	-	-
Protect in Fee w/o State PILT Liability	0	-	-
Protect in Easement	0	-	-
Enhance	0	-	-

Total Requested Funding by Resource Type (Table 2)

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	$3,000,000	$1,975,000	65.83%
Protect in Fee with State PILT Liability	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-
Protect in Easement	-	-	-
Enhance	-	-	-

Acres within each Ecological Section (Table 3)

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	50,000	50,000	100.0%
Protect in Fee with State PILT Liability	0	-	-
Protect in Fee w/o State PILT Liability	0	-	-
Protect in Easement	0	-	-
Enhance	0	-	-

Total Requested Funding within each Ecological Section (Table 4)

Type	Total Proposed	Total in AP	Percentage of Proposed
Restore	$3,000,000	$1,975,000	65.83%
Protect in Fee with State PILT Liability	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-
Protect in Easement	-	-	-
Enhance	-	-	-