Lessard-Sams Outdoor Heritage Council
Laws of Minnesota 2020 Accomplishment Plan

Date: December 12, 2019

Program or Project Title: Phase 1: Rum River Wildlife and Fish Habitat Enhancement using Bioengineered Bank Stabilization

Funds Recommended: $ 952,000

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Legislative Citation: ML 2020, Ch. X, Art. 1, Sec. 2, subd XX

Appropriation Language:

County Locations: Anoka

Eco regions in which work will take place:

- Metro / Urban

Activity types:

- Enhance

Priority resources addressed by activity:

- Habitat

Abstract:

In partnership with Anoka County and landowners, Anoka Conservation District will enhance Rum River habitat by utilizing eco-sensitive, habitat-building, bioengineering approaches to address active bank erosion on four to eight reaches. Sediment delivered from bank erosion threatens fish and mussel reproduction. The Rum River is a state designated Outstanding Resource Value Water and Wild, Scenic and Recreational River with eighty actively failing riverbanks in Anoka County alone. Project partners will address these in a phased approach utilizing CWF, LSOHC, and CPL funds. LSOHC funds will be used for projects that primarily enhance habitat, including for species in greatest conservation need.

Design and scope of work:

Eighty sites spanning seven miles of actively eroding riverbank were identified along the Rum River in Anoka County, an Outstanding Resource Value Water and Wild, Scenic and Recreational River. Identified bank failures contribute an estimated 7,838 tons of sediment to the river annually, which decimates littoral transitional habitat, smothers fish spawning areas, compromises mussel reproduction and vigor, and reduces success of predatory game fish species due to increased turbidity. The Anoka Conservation District (ACD), along with Anoka County and landowners, proposes to systematically stabilize and enhance these damaged riverbanks. In total this undertaking will require a projected $14 million in public and private funds, drawing upon several grant funding sources, and spanning multiple grant cycles.
An inventory of active erosion sites was finalized in March of 2019 by ACD (https://www.anokaswcd.org/images/AnokaSWCD/Reports/Inventory/Rum_River_Erosion_Inventory_Final.pdf). Based on erosion severity, sites were assigned one of three stabilization approaches, which align with one of three state funding sources. Seventeen tall,

severely eroding riverbanks require armament, have a primary benefit of water quality improvement, and will be addressed with CWF funding. Twenty-one shorter, moderately eroding riverbanks can be corrected utilizing bioengineering approaches, have a primary benefit of habitat enhancement, and will be addressed with LSOHC funds. Forty-two short, moderately eroding riverbanks can be corrected utilizing cedar tree revetments and will be addressed with CPL funds.

This grant request is for ACD, in partnership with Anoka County, to enhance four to eight sites over three years that can be addressed using bioengineering approaches such as bendway weirs and root wads that produce in-stream habitat for fish, turtles and amphibians, native plantings and staking that produce riparian habitat above the water, and light toe armoring and minor grading that make these habitats traversable by wildlife. Sites will be prioritized considering linear feet of habitat enhanced, cost-benefit analysis, landowner buy-in, and accessibility. Phase-1 projects will enhance up to 2,640 feet of habitat, and reduce sediment loads to the Rum River by up to 750 tons/year.

Riverbank stabilization design and installation processes can present hazards to some wildlife; namely nearshore mussels, amphibians and reptiles during construction, and reptiles and amphibians that are unable to safely traverse the post-construction stabilization materials and plantings. As part of this project, ACD intends work with experts in the field to conceptualize, design and implement approaches to best abate these hazards, with particular attention on species in greatest conservation need (SGCN) such as state-listed mussels and Blanding's turtles.

The Rum River is identified as a key river stretch for habitat and species richness for SGCN through Anoka County. Large portions of critical streambank transitional habitat that these species depend on are gone already, with more lost each year. The number of optimal sites for habitat enhancing bioengineering approaches is limited, and will continue to diminish if left unchecked. Inventory work by ACD shed light on the severity of the issue and the scale of the opportunity to take corrective action.

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:

Two special concern mussel species were found in the Rum River in Anoka County during the 2004 statewide mussel survey, Ligumia recta (Black Sandshell) and Lasmigona compressa (Creek Heelsplitter). Additionally, the threatened species Emydoidea blandingii (Blanding's Turtle) has been documented numerous times in and near the Rum River. Special concern terrestrial species identified include Pituophis catenifer (Gophersnake), and Buteo lineatus (Red-shouldered hawk). Correcting eroded gaps in riparian-littoral habitat and improving water quality by decreasing sediment loads to the river will expand and reconnect high quality habitat for these species.

Before and during construction, ACD will consult with experts in the field to implement, or even develop, best practices to mitigate mussel loss. Project designs will incorporate wildlife friendly elements and traversable infrastructure for amphibians and reptiles that often get trapped in traditional riprap projects. SGCN and wildlife in general will benefit from these practices and design elements.

Describe the science based planning and evaluation model used:

A 360° photo-inventory and GIS analysis of streambank condition of the Rum River through Anoka County were combined to identify eighty damaged and eroding riverbank stretches. The stretches were categorized by optimal stabilization approach, and an annual sediment load was calculated for each using the WI NRCS Field Office Technical Guide for streambank erosion. All eighty stretches identified were ranked by cost effectiveness for water quality benefit. Only those projects with a high potential for habitat enhancing bioengineering approaches, and a high-ranking cost effectiveness for water quality improvement, will be considered for this project. Stabilization and enhancement of these eroded stretches will reconnect currently fragmented riparian-littoral habitat along the Rum River, a key ecological resource in Anoka County. The MN County Biological Survey identifies Silver Maple floodplain forest and Oak/Red Maple lowland forest types along the Rum River in Anoka County. Currently, eroded and failing banks disconnect these lowland forest habitats from the littoral river habitat due to lack of riparian transitional habitat. In many cases, the eroding banks present a cliff-like barrier between the two. Stabilizing these banks as well as providing traversable transitional habitat will reconnect these habitat types for species that rely on them.

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's Wildlife Action Plan 2015-2025
- Tomorrow's Habitat for the Wild and Rare

Which LSOHC section priorities are addressed in this program:

Metro / Urban:

- Protect, enhance, and restore riparian and littoral habitats on lakes to benefit game and nongame fish species

Relationship to other funds:

- Not Listed

Does this program include leverage in funds:

Yes

Leverage sources include secured funds from Anoka County and watershed management organizations. For each site, the landowner will be required to provide matching funds, whether in public or private ownership. Anoka County has pledged over $442k of grant match over five years for Rum River stabilization and enhancement projects. $140,880 is planned as direct match for this project. An additional $95,200 is anticipated as landowner match as a sum of all individual project match dollars. Stabilization projects occurring on land owned by municipalities or Anoka County will still be required to have a landowner match contributed by the owning entity. Additional local funds may be used for grant ineligible expenses if necessary, but at least $236,080 of match will go towards grant eligible expenses.

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:

This request will not supplant or substitute any previous funding.

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

Not Listed

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

ACD and its local partners are dedicated to sustaining the Rum River as a high quality water, ecological, recreational, hunting, and fishing resource and wildlife corridor through Anoka County. A variety of additional projects and funding sources are planned into the future to continue to build and sustain Rum River habitat and water quality. ACD will continue its legacy of streambank stabilization projects utilizing state and local funding sources. Anoka County has pledged over $442k over the next five years to support these activities, and other local partners are supportive as well.
Maintenance of completed projects will be performed by individual landowners through maintenance agreements as part of individual project contracts. ACD holds maintenance agreements with many landowners with similar projects installed on their properties. Routine site inspections will be performed by ACD as part of the maintenance agreement terms with each landowner.

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

Year	Source of Funds	Step 1	Step 2	Step 3
1, 3, 9 after install	Anoka Conservation District	Site Inspections in accordance with signed maintenance agreement	Follow up with landowner on maintenance needs and provide any necessary technical assistance	
Annual After Install	Landowner	Maintenance of integrity and viability of project		

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**

(Public Waters)

Accomplishment Timeline:

Activity	Approximate Date Completed
Landowner outreach and site selection for 2021 projects	September 2020
Site survey, design engineering, and permitting	February 2021
Project construction	September 2021
Landowner outreach and site selection for 2022 projects	September 2021
Site survey, design engineering, and permitting	February 2022
Project construction	September 2022
Landowner outreach/site selection for 2023 projects (in the event that all projects are not completed in first two years)	September 2022
Site survey, design engineering, and permitting	February 2023
Project construction	June 2023

Date of Final Report Submission: 11/1/2023

Federal Funding:

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

Outcomes:

Programs in metropolitan urbanizing region:

- A network of natural land and riparian habitats will connect corridors for wildlife and species in greatest conservation need *This project will allow us to reconnect gaps in Rum River riparian-littoral habitat currently fragmented and missing due to eroded riverbank. Over seven miles of this missing habitat was identified during an ACD Rum River erosion inventory. Up to 3 acres of habitat along 2,640 feet of Rum River shoreline will be enhanced with this funding.*

Budget Spreadsheet

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

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

No change from original application in deliverables. We realized we lumped construction oversight into contracts instead of personnel, and now plan to do designs in-house with engineer sign-off from a neighboring SWCD, causing a shift from professional services to personnel. These shifts were left proportional to the first Accomplishment Plan.

Total Amount of Request: $ 952000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	$214,200	$53,100	Anoka County, Rum WMOs, Landowner	$267,300
Contracts	$666,400	$165,300	Anoka County, Rum WMOs, Landowner	$831,700
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	$47,600	$11,800	Anoka County, Rum WMOs, Landowner	$59,400
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	$23,800	$5,900	Anoka County, Rum WMOs, Landowner	$29,700
DNR IDP	$0	$0		$0
Total	$952,000	$236,100		$1,188,100

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
ACD District Manager	0.09	3.00	$32,100	$8,000	Anoka County, Rum WMOs, Landowner	$40,100
ACD Administrator	0.01	3.00	$3,200	$800		$4,000
ACD Specialist	0.43	3.00	$85,700	$21,200		$106,900
ACD Principal	0.34	3.00	$93,200	$23,100		$116,300
Total	0.87	12.00	$214,200	$53,100		$267,300

Amount of Request:	$952,000
Amount of Leverage:	$236,100
Leverage as a percent of the Request:	24.80%
DSS + Personnel:	$214,200
As a % of the total request:	22.50%

What is included in the contacts line?

100% of the dollars in the contract line will be spent on contracted enhancement work along the Rum River. All survey and design work will be performed under Professional Services and ACD personnel cost. ACD intends to do as much survey and design work in-house as possible to maximize cost-effectiveness.

Describe and explain leverage source and confirmation of funds:

$140,880 is secured from Anoka County and Rum Watershed Management Organizations toward the grant project as a whole. Additionally, landowners will be required to provide remaining matching funds for all individual sites, whether in public or private ownership. Additional partner funds may be used for other ineligible expenses.

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	0	3	3
Total	0	0	0	3	3

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	$0	$952,000	$952,000
Total	$0	$0	$0	$952,000	$952,000

Table 3. Acres within each Ecological Section

Type	Metro Urban	Forest Prairie	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	3	0	0	0	0	3
Total	3	0	0	0	0	3

Table 4. Total Funding within each Ecological Section

Type	Metro Urban	Forest Prairie	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	$952,000	$0	$0	$0	$0	$952,000
Total	$952,000	$0	$0	$0	$0	$952,000

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	$0	$317333

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	$317333	$0	$0	$0	$0

Automatic system calculation / not entered by managers

Target Lake/Stream/River Feet or Miles

2,640 River Feet

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

Anoka

Name	TRDS	Acres	Est Cost	Existing Protection?
1	0 3424229	0	$0	No
10	0 3225236	0	$0	No
11	0 3124224	0	$0	No
2	0 3424232	0	$0	No
3	0 3324205	0	$0	No
4	0 3324220	0	$0	No
5	0 3324229	0	$0	No
6	0 3324231	0	$0	No
7	0 3225212	0	$0	No
8	0 3225213	0	$0	No
9	0 3225225	0	$0	No

Section 2 - Protect Parcel List

No parcels with an activity type protect.

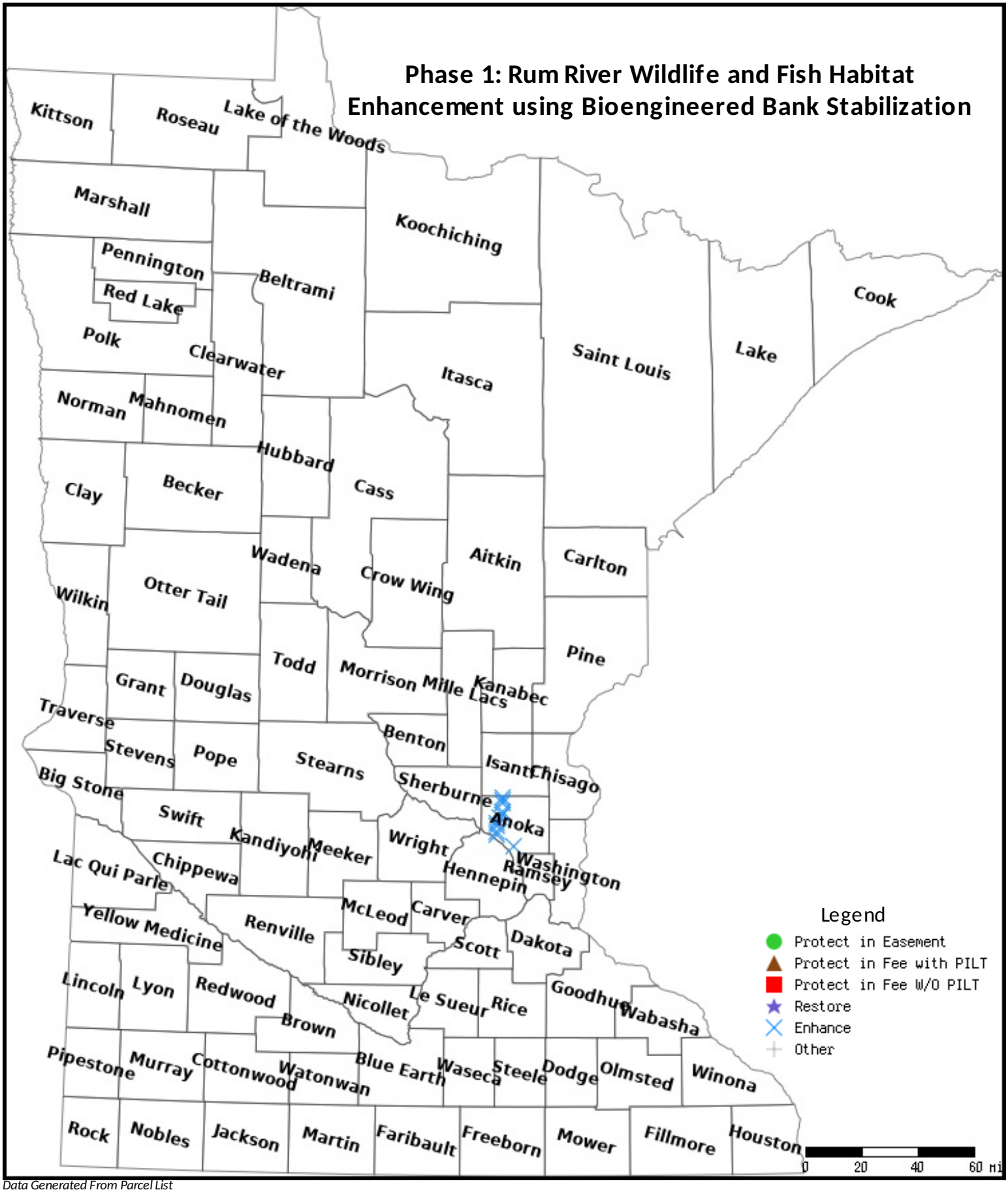
Section 2a - Protect Parcel with Bldgs

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