



Lessard-Sams Outdoor Heritage Council

Laws of Minnesota 2018 Final Report

General Information

Date: 08/05/2021

Project Title: Lake George Dam and Rum River Erosion

Funds Recommended: \$539,000

Legislative Citation: ML 2018, Ch. 208, Art. 1, Sec. 2, subd 5(m)

Appropriation Language: \$539,000 the second year is to the commissioner of natural resources for an agreement with Anoka County to enhance aquatic habitat in and adjacent to Lake George in Anoka County and to restore and enhance aquatic habitat on the Rum River. A list of proposed habitat enhancements and restorations must be provided as part of the required accomplishment plan.

Manager Information

Manager's Name: Karen Blaska

Title: Park Planner

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Location Information

County Location(s): Anoka.

Eco regions in which work will take place:

- Metro / Urban

Activity types:

- Restore
- Other : Preserves 495 acres of lake habitat, 150 acres of wetland habitat, and restores 625 feet of riverbank and fish and wildlife habitat.

Priority resources addressed by activity:

- Wetlands
- Habitat

Narrative

Summary of Accomplishments

This project addressed two separate problems: the eminent failure of the Lake George dam and two severe erosion sites on the Rum River in Anoka County. The dam project reconstructed the failing sheet pile dam with a new dam that allows for fish passage on the outlet of Lake George preserving the 495 acres of lake habitat and 150 acres wetland habitat. The two river bank erosion sites rated as 'Severe' totaling approximately 625 feet on the Rum River which will reduce sediment loading into the river by 285 tons per year and provide improved stream fish habitat.

Process & Methods

Both of these projects were priorities for the State, County and local cities and both projects were able to be conducted with the State of MN Department of Natural Resources and the Anoka Conservation District as partners. These partnerships provided valuable input on the design and engineering of these projects. The Lake George Dam project was a success as the failing dam was replaced and lake levels stabilized. The scope of the project included removing the old failing dam and reconstructing a new sheet pile dam with boulders and rocks. These rocks and boulders were used to create short tiered pools on the downstream side of the dam to allow for fish passage. Work was conducted during the winter to reduce impacts. The project is a success without any notable issues. The lake level is stable, fish can now pass over the dam and 495 acres of lake habitat and 156 acres of wetland habitat are preserved. The Rum River erosion project required excavation for a more favorable slope, placement of root wads and trees into the bank and restoration. The root wads and trees are collecting sediment from the river and are rebuilding the eroded banks. The project was conducted during the winter to reduce impacts, but high spring flows and velocity caused some damage that had to be repaired. Once the water receded and the river slowed, repairs were made and restoration occurred. There was some plant mortality due to the deer in the area, but plants were replaced and the rest of the vegetation is established. This project is successful because the banking is rebuilding itself and is no longer contributing up to 285 tons of sediment per year in sediment loading and improves the stream and fish habitat in the river. The project also helps to improve spawning habitat, water clarity, water temperatures and dissolved oxygen levels. The projects received excellent pricing during bidding and were able to be completed under budget.

How did the program address habitats of significant value for wildlife species of greatest conservation need, threatened or endangered species, and/or list targeted species?

The project preserves 495 acres of lake habitat and 156 acres of adjacent wetland habitat which serves as habitat for breeding and as nursery habitat for fish, waterfowl, game and non-game species. It preserves the littoral zone of the lake and river which is important refuge for juvenile fish. The dam created favorable habitat for fish passage and the projects help maintain habitat for the Showy Lady Slipper and the Blanding's Turtle.

How did the program use science-based targeting that leveraged or expanded corridors and complexes, reduced fragmentation, or protected areas in the MN County Biological Survey.

The project was able to retain the present water level in Lake George, which will maintain critical wetland habitat needs for the Blanding's Turtle (*Emys blandingii*), which is known to occur in this area. The repair of the two erosion sites on the Rum River significantly reduces sediment loads that can silt over fish spawning beds, cause higher water temperatures and reduce dissolved oxygen levels

Explain Partners, Supporters, & Opposition

As mentioned previously, Anoka County partnered with the MN Department of Natural Resources and the Anoka Conservation District. These agencies provided valuable input on the design and engineering of the projects. The Lake George Lake Improvement District and the Lake George Conservation Club provided both input and support for the project.

Exceptional challenges, expectations, failures, opportunities, or unique aspects of program

The projects did not have any exceptional challenges or failures. It had very specific expectations related to lake levels and was required to maintain the existing lake levels which the project did. The project provided a unique opportunity in the partnership between the DNR and the County, as the DNR owns the dam, but the County understood what the significant natural resource and economic impacts would be should the existing dam fail. Thus, the County was able to work with the Lake George Improvement District to secure the funds for the projects.

What other fund may contribute to this program?

- Other : Anoka County Funds

How were the funds used to advance the program?

These funds were used to help support the project through in-kind labor and equipment, as well as cash.

What is the plan to sustain and/or maintain this work after the Outdoor Heritage Funds are expended?

Anoka County has successfully restored 100's of acres of prairies and oak savanna throughout its park system. We have also successfully stabilized over 600' of eroding stream bank at two sites on the Rum River and continues to address these types of sites. All sites will be inspected and monitored annually to ensure the dam and fish passage are functioning as designed and the riverbank stabilization projects will be inspected and monitored to ensure the toes are stabilized and the native vegetation is well established.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
annually	County	Inspect all sites	address issues as they come up	-

Budget

Totals

Item	Requested	AP Amount	Spent	Antic. Leverage	Received Leverage	Leverage Source	Original Total	Final Total
Personnel	-	-	-	\$40,000	\$10,200	-	\$40,000	\$10,200
Contracts	\$480,000	\$480,000	\$406,300	-	-	-	\$480,000	\$406,300
Fee Acquisition w/ PILT	-	-	-	-	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-	-	-	-	-
Easement Acquisition	-	-	-	-	-	-	-	-
Easement Stewardship	-	-	-	-	-	-	-	-
Travel	-	-	-	\$25,400	-	County Equipment / Operating Budget	\$25,400	-
Professional Services	\$47,000	\$47,000	-	\$57,000	-	County Operating Budget	\$104,000	-
Direct Support Services	-	-	-	-	-	-	-	-
DNR Land Acquisition Costs	-	-	-	-	-	-	-	-
Capital Equipment	-	-	-	-	-	-	-	-
Other Equipment/Tools	-	-	-	-	\$5,300	County Operating Budget	-	\$5,300
Supplies/Materials	\$12,000	\$12,000	\$1,400	\$13,000	-	County Operating Budget	\$25,000	\$1,400
DNR IDP	-	-	-	-	-	-	-	-
Grand Total	\$539,000	\$539,000	\$407,700	\$135,400	\$15,500	-	\$674,400	\$423,200

Personnel

Position	Annual FTE	Years Working	Funding Request	Antic. Leverage	Leverage Source	Total
Staff time	0.0	0.0	-	\$10,200	Anoka County	\$10,200

Explain any budget challenges or successes:

Anoka County was actually able to get excellent pricing when the project was publicly bid and came in significantly under budget. The County's leverage amount was also significantly lower than anticipated. Overall, the project is a success for achieving what was outlined in the accomplishment plan and doing so under the budgeted amount. The county ended up using a lot less time and equipment for the work than what was originally estimated resulting in a leverage reduction.

Total Revenue: \$0

Revenue Spent: \$0

Revenue Balance: \$0

Of the money disclosed above, what are the appropriate uses of the money:

- E. This is not applicable as there was no revenue generated.

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland (AP)	Wetland (Final)	Prairie (AP)	Prairie (Final)	Forest (AP)	Forest (Final)	Habitat (AP)	Habitat (Final)	Total Acres (AP)	Total Acres (Final)
Restore	0	0	0	0	0	0	645	645	645	645
Protect in Fee with State PILT Liability	0	0	0	0	0	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0	0	0	0	0
Enhance	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	645	645	645	645

Total Requested Funding by Resource Type (Table 2)

Type	Wetland (AP)	Wetland (Final)	Prairie (AP)	Prairie (Final)	Forest (AP)	Forest (Final)	Habitat (AP)	Habitat (Final)	Total Funding (AP)	Total Funding (Final)
Restore	-	-	-	-	-	-	\$539,000	\$406,300	\$539,000	\$406,300
Protect in Fee with State PILT Liability	-	-	-	-	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-	-	-	-	-
Enhance	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	\$539,000	\$406,300	\$539,000	\$406,300

Acres within each Ecological Section (Table 3)

Type	Metro / Urban (AP)	Metro / Urban (Final)	Forest / Prairie (AP)	Forest / Prairie (Final)	SE Forest (AP)	SE Forest (Final)	Prairie (AP)	Prairie (Final)	N. Forest (AP)	N. Forest (Final)	Total (AP)	Total (Final)
Restore	645	645	0	0	0	0	0	0	0	0	645	645
Protect in Fee with State PILT Liability	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0	0	0	0	0	0	0

Enhance	0	0	0	0	0	0	0	0	0	0	0	0
Total	645	645	0	0	0	0	0	0	0	0	645	645

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/ Urban (AP)	Metro/ Urban (Final)	Forest / Prairie (AP)	Forest / Prairie (Final)	SE Forest (AP)	SE Forest (Final)	Prairie (AP)	Prairie (Final)	N. Forest (AP)	N. Forest (Final)	Total (AP)	Total (Final)
Restore	\$539,000	\$406,300	-	-	-	-	-	-	-	-	\$539,000	\$406,300
Protect in Fee with State PILT Liability	-	-	-	-	-	-	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-	-	-	-	-	-	-
Enhance	-	-	-	-	-	-	-	-	-	-	-	-
Total	\$539,000	\$406,300	-	-	-	-	-	-	-	-	\$539,000	\$406,300

Target Lake/Stream/River Feet or Miles

Lake George (495 Acres), Wetland Habitat (150 acres) and Rum River (625 River Feet)

Outcomes

Programs in metropolitan urbanizing region:

- Protected habitats will hold wetlands and shallow lakes open to public recreation and hunting ~
Measurements were made as to acres of wetland habitat hydrology maintained (150 acres) and Lake George littoral zone preserved (88 acres) for the dam replacement, which were evaluated and confirmed and a decrease in sediment loss of 285 tons per year for the river bank stabilization component, which was evaluated and confirmed.

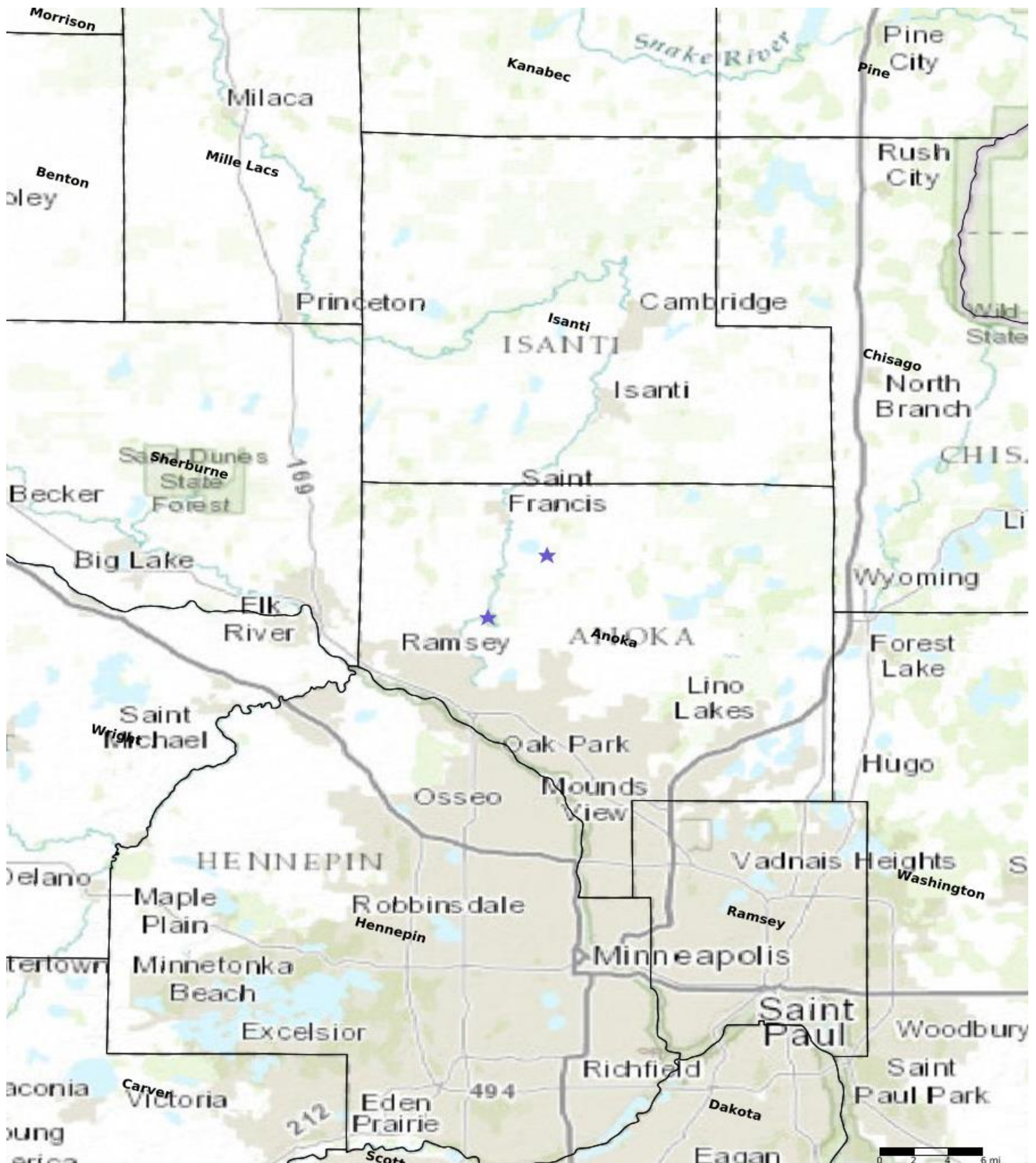
Parcels

Sign-up Criteria?

No

Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Lake George Dam	Anoka	03324215	1	\$122,000	Yes
Rum River Bank repair	Anoka	03224206	1	\$284,300	Yes



- Protect in Easement
- ▲ Protect in Fee with PILT
- Protect in Fee W/O PILT
- ★ Restore
- ✕ Enhance
- + Other

Parcel Map
Lake George Dam and Rum River Erosion
 (Data Generated From Parcel List)