



## Lessard-Sams Outdoor Heritage Council

St. Louis River Restoration Initiative - Phase 6  
Laws of Minnesota 2019 Accomplishment Plan

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### General Information

**Date:** 08/04/2023

**Project Title:** St. Louis River Restoration Initiative - Phase 6

**Funds Recommended:** \$3,777,000

**Legislative Citation:** ML 2019, 1st Sp. Session, Ch. 2, Art. 1, Sec. 2, subd, 5(h)

**Appropriation Language:** \$3,777,000 the first year is to the commissioner of natural resources to restore aquatic and riparian habitats in the St. Louis River estuary. Of this appropriation, up to \$2,182,000 is for an agreement with Minnesota Land Trust. A list of proposed restorations must be provided as part of the required accomplishment plan.

### Manager Information

**Manager's Name:** Melissa Sjolund

**Title:** St. Louis River AOC Coordinator

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### Location Information

**County Location(s):** St. Louis.

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

- Northern Forest

**Activity types:**

- Restore

**Priority resources addressed by activity:**

- Habitat

## Narrative

### Abstract

MNDNR's St. Louis River Restoration Initiative (SLRRI) is a collaborative program that has successfully enhanced and restored the ecological diversity of this unique and valuable resource. The vision for the Estuary includes diverse, productive, and healthy aquatic and terrestrial ecosystems of the river and watershed. Contributing to this vision, MNDNR will restore 133 acres of priority aquatic and riparian habitat at multiple sites in the Estuary in partnership with the Minnesota Land Trust. When Phase 6 is complete, approximately 627 acres of habitat will have been restored by using OHF funds to leverage a substantial amount of federal funding.

### Design and Scope of Work

The St. Louis River Restoration Initiative (SLRRI) and OHF partnership began in 2014 to achieve fish and wildlife habitat restoration in the St. Louis River Estuary (Estuary) that contributes to the delisting of the St. Louis River Area of Concern (AOC). The partnership has effectively and efficiently restored 551 acres of aquatic habitat. This proposal includes projects identified by the 2002 Lower St. Louis River Habitat Plan (Habitat Plan). If accomplished, these projects will move toward complete implementation of the vision described in the Habitat Plan, and will maintain investments already made in the Estuary. Funding for this phase of the SLRRI will be leveraged with Great Lakes Restoration Initiative (GLRI) funding. In Phase 6 of the SLRRI, MNDNR will continue to apply its broad partnership to construct 138 acres of projects. The MNDNR will also continue its close implementation partnership with the Minnesota Land Trust (MLT) to speed completion of priority projects. Similar to 2017 and 2018, funds will be directly appropriated to MLT for Perch Lake, Interstate Island, or other projects as determined by MNDNR.

Perch Lake is a shallow sheltered bay that is isolated from the Estuary by Minnesota Highway 23. The goal is to restore a hydrologic connection with the Estuary to improve water quality, promote diverse aquatic vegetation, and establish recreational boat access. Perch Lake represents the last MNDNR objective toward delisting the AOC.

Interstate Island WMA is a critical habitat project. The island is located in the lower Estuary and is home to Lake Superior's largest colony of Common Terns (threatened) and is critical habitat for Piping Plover (endangered). Increasing water levels have decreased available nesting habitat by 50% since an emergency restoration effort was conducted by MNDNR in 2015 with funds from OHF and United States Fish and Wildlife Service. Restoration will increase the island's elevation to protect against flooding. MLT submitted a proposal for this work to LCCMR for \$1,243,500 on April 11, 2018, including a partner letter from MNDNR's Division of Fish and Wildlife.

Mud Lake is a warm water fish and migratory bird restoration project. Mud Lake is the Estuary's flat/sheltered bay upstream of the US Steel Superfund Site impacted by legacy wood waste and bisected by a railroad causeway. The SLRRI team will work in close coordination with the MPCA, USEPA, and the City of Duluth to address sediment contamination, enhance hydrologic connection, remove legacy wood waste, and restore aquatic ecological function.

Kingsbury and Keene Creeks are trout stream restoration projects. These multi-partnered projects will enhance the creeks' connection to their floodplains, reduce sedimentation, restore trout habitat, and increase resiliency of Estuary restoration efforts currently being completed with earlier OHF appropriations.

Lower Knowlton Creek is a trout stream restoration project. The project will remove a fish and wildlife migration barrier along recently restored Knowlton Creek between the Estuary and Magney-Snively Forest Complex. Proposed work will remove the barrier and restore a natural stream channel.

**How does the plan address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species?**

The 12,000 acre St. Louis River Estuary, at the head of Lake Superior, is a unique Minnesota resource. It is the largest source of biological productivity to Lake Superior as well as the world's largest freshwater shipping port. The combination of extensive wetlands, warmer waters and the connection to Lake Superior resulted in it becoming the primary source of productivity for the western Lake Superior fishery and a critical flyway for waterfowl and other migratory birds. Nearly two-thirds of the estuary's native wetlands have been altered, eliminated or impaired as a result of historic impacts of dredging, filling and waste disposal associated with industrial activities. Although economic uses in the industrialized portion of the Estuary continue, many of the historic problems associated with waste disposal have been addressed through the Clean Water Act and subsequent actions. The proposed projects represent an opportunity to balance economic activities, while restoring the negative impacts of historic uses. Additionally, restorations will directly benefit SGCN and other species by improving habitat quality and extent in strategic locations to maximize benefits to populations.

As the Outdoor Heritage Fund's 2009 25-year frame work states, "Success in conservation will depend highly on leveraging traditional and other sources of conservation funding with available OHF funds and coordinating efforts with conservation partners." The proposed project is integrated with local, state, federal, tribal and non-government partners that have worked together to advance projects and secure non-OHF funding at of approximately 50%. Minnesota's legacy funds are an integral part of the overall strategy to restore the health of this unique resource.

**Describe how the plan uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:**

The 1980's were the turning point for the Estuary. As water quality improved following construction of wastewater and sewage treatment plants it became clear that the Estuary's fish and wildlife populations could recover if habitat conditions were restored. MNDNR worked with many local, state and federal resource experts and stakeholders to develop the Habitat Plan, a comprehensive science based plan for protecting, restoring and managing fish and wildlife of the St. Louis River Estuary.

Science-based targeting was used to identify, design, monitor, and ensure the quality of the proposed projects. The

MNDNR worked with many local, state, tribal and federal resource professional as well as stakeholders to develop the Habitat Plan, which is a comprehensive science-based plan for protecting, restoring, and managing the Estuary's fish and wildlife habitat. Partners developed the Habitat Plan to guide and prioritize restoration work, and it has been the foundation of the SLRRI.

AOC partners used a source-stressor model to identify impairments to the Estuary. The model identified conservation targets, stresses limiting those targets, and recommended actions to address the source of the stress. All project areas supported by the GLRI also require the development of a Quality Assurance Plan to measure the successful outcomes of the conservation actions.

Scientists from University of Minnesota, National Oceanic and Atmospheric Administration, U.S. Environmental Protection Agency, U.S. Fish & Wildlife Service, MNDNR, and MPCA continue to monitor and evaluate the Estuary's fish and wildlife populations and habitat to prioritize restoration projects, model expected outcomes of restoration alternatives, and evaluate restoration outcomes.

### **Which two sections of the Minnesota Statewide Conservation and Preservation Plan are most applicable to this project?**

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

### **Which two other plans are addressed in this program?**

- Lower St. Louis River Habitat Plan
- U.S. Fish and Wildlife Service Strategic Habitat Conservation Model

### **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 availability and improved condition of habitats that have experienced substantial decline ~ *MNDNR evaluates habitat restoration effectiveness using a variety of physical and biologic metrics measured pre- and post-project. Completed restoration associated with the AOC will be measured in acres of habitat restored and evaluated to remove beneficial use impairments and ultimately delist the AOC.*

### **Does this program include leveraged funding?**

Yes

## Explain the leverage:

To date, MNDNR has secured \$14M in OHF funding and more than \$15M in non-OHF funds, a ratio of 52% in non-OHF funds. Relative to the Perch Lake project contained in this proposal, in June 2018 MNDNR secured \$3.5 million from USEPA and using \$1M as leverage in ML2019 funds to support construction. Additionally, MNDNR is in the process of developing a partnership with the USACE that commits \$260,000 in federal funds for the design of the Perch Lake project as well as funding for design of Mud Lake. MNDNR has received \$137,500 in funds from the NRDA for the design of Kingsbury Creek; a second resolution of \$500,000 will be available in January 2019 for Kingsbury Creek Construction. MNDNR is also working in partnership with the City of Duluth and GLRI/USEPA to align Federal and City contributions to the completion of the Mud Lake, Keene Creek, and Lower Knowlton Creek Projects.

The MNDNR has completed these projects with many different agencies and organizations, who all share the goals of the SLRRI. The MPCA provides management support and technical expertise. The USEPA, NOAA, USFWS, USACE and other federal and Tribal agencies have provided funding, technical expertise, or in-kind services. The MNDNR has participated in projects that will have completed approximately 565 acres of aquatic and wetland habitat restoration by the end of 2019.

## 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.

No, this request is not supplanting any previous funding.

## Non-OHF Appropriations

Year	Source	Amount
ML2012	Federal Dollars: NOAA, NFWF, USEPA, USFWS	\$2,640,000
ML2014	Federal Dollars: NOAA, USEPA	\$600,000

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

MNDNR Duluth Area Fisheries manages the Lower St. Louis River through regular monitoring, assessment and regulation. They are partnered with the WDNR, the MPCA, USEPA MED Lab, and NOAA's National Estuary Research Reserve in the effort to monitor and address issues associated with the long-term maintenance of habitat restoration outcomes in the estuary.

St. Louis River habitat restoration projects are designed to be maintained by the natural processes that define these systems. Barring catastrophic events, these projects would not require future adjustment, or clean-up. Restoration of submerged aquatic vegetation beds at locations such as the ones proposed will consider the water depth, substrate type and wave energy environment required to maintain these systems. Similarly, stream restoration at proposed locations will take into account all pertinent morphological and geographical information to produce an appropriate and resilient outcome.

Healthy and robust native communities are resistant to invasion by exotic species. If these species successfully

establish on a site they can disrupt the foodweb of the native community and result in reduced populations of target species. Restoration of native plant species will inhibit the establishment of invasives and MNDNR is partnered with the other entities described above to control them.

### Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
All years	Fish & Wildlife Game & Fish Fund	Regular Surveys/monitoring	-	-
All years	WDNR, MPCA, USEPA, NOAA	Long-term monitoring at specific sites	-	-

### 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?**

- WMA
- County/Municipal
- Public Waters

#### Land Use

**Will there be planting of any crop on OHF land purchased or restored in this program?**

No

### Timeline

Activity Name	Estimated Completion Date
Perch Lake: Enhance hydraulic connectivity to the estuary and establish desirable sheltered bay bathymetry	December 2021
Kingsbury Creek: Reduce sedimentation, restore cold-water fisheries habitat and enhance recreational fishing	December 2019
Interstate Island WMA: Piping Plover and Common Tern critical habitat restoration	November 2020
Mud Lake: Enhance hydrologic connection, remove legacy wood waste and restore ecological functions	December 2021
Keene Creek: Reduce sedimentation, restore cold-water fisheries habitat and enhance recreational fishing	December 2022
Lower Knowlton Creek: Remove causeway and restore a natural stream channel	December 2023

**Date of Final Report Submission: 11/01/2024**

**Availability of Appropriation:** Subd. 7. Availability of Appropriation

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. Unless otherwise provided, the amounts in this section are available until June 30, 2022. For acquisition of real property, the amounts in this section are available until June 30, 2023, if a binding agreement with a landowner or purchase agreement is entered into by June 30, 2022, and closed no later than June 30, 2023. Funds for restoration or enhancement are available until June 30, 2024, or five years after acquisition, whichever is later, in order to complete initial restoration or enhancement work. If a project receives at least 15 percent of its funding from federal funds, the time of the appropriation may be extended to equal the availability of federal funding to a maximum of six years if that federal funding was confirmed and included in the original draft accomplishment plan. Funds 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.

**Budget**

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

**Grand Totals Across All Partnerships**

<b>Item</b>	<b>Funding Request</b>	<b>Leverage</b>	<b>Leverage Source</b>	<b>Total</b>
Personnel	\$639,000	-	-	\$639,000
Contracts	\$2,746,400	\$1,137,500	-, NRDA, USEPA	\$3,883,900
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$4,100	-	-	\$4,100
Professional Services	\$311,500	-	-	\$311,500
Direct Support Services	\$52,000	-	-	\$52,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$21,000	-	-	\$21,000
Supplies/Materials	\$3,000	-	-	\$3,000
DNR IDP	-	-	-	-
<b>Grand Total</b>	<b>\$3,777,000</b>	<b>\$1,137,500</b>	-	<b>\$4,914,500</b>



## Partner: MN Land Trust

**Totals**

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$82,000	-	-	\$82,000
Contracts	\$1,560,000	-	-	\$1,560,000
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	-	-	-	-
<b>Grand Total</b>	<b>\$1,642,000</b>	-	-	<b>\$1,642,000</b>

**Personnel**

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
Director of Restoration	0.05	3.0	\$17,000	-	-	\$17,000
Lake Superior Projects Coordinator	0.25	3.0	\$48,000	-	-	\$48,000
Finance Manager	0.05	3.0	\$17,000	-	-	\$17,000

**Partner: MNDNR****Totals**

Item	Funding Request	Leverage	Leverage Source	Total
Personnel	\$557,000	-	-	\$557,000
Contracts	\$1,186,400	\$1,137,500	NRDA, USEPA	\$2,323,900
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$4,100	-	-	\$4,100
Professional Services	\$311,500	-	-	\$311,500
Direct Support Services	\$52,000	-	-	\$52,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	\$21,000	-	-	\$21,000
Supplies/Materials	\$3,000	-	-	\$3,000
DNR IDP	-	-	-	-
<b>Grand Total</b>	<b>\$2,135,000</b>	<b>\$1,137,500</b>	-	<b>\$3,272,500</b>

**Personnel**

Position	Annual FTE	Years Working	Funding Request	Leverage	Leverage Source	Total
AOC/Habitat Coordinator	0.5	3.0	\$168,000	-	-	\$168,000
Restoration Consultant	0.5	3.0	\$180,000	-	-	\$180,000
Office & Administrative Specialist	0.75	3.0	\$209,000	-	-	\$209,000

**Amount of Request:** \$3,777,000

**Amount of Leverage:** \$1,137,500

**Leverage as a percent of the Request:** 30.12%

**DSS + Personnel:** \$691,000

**As a % of the total request:** 18.29%

**Easement Stewardship:** -

**As a % of the Easement Acquisition:** -

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

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

\$637,500 in funds from the NRDA have been confirmed to MNDNR for the design and construction of Kingsbury Creek. In June 2018 MNDNR was awarded \$3.5 million in GLIR USEPA funds for Perch Lake. These funds will be used to leverage ML2018 and ML2019 awards.

## Contracts

### What is included in the contracts line?

MNDNR will manage the contracting and the construction of Keene Creek, Kingsbury Creek, Lower Knowlton Creek and Mud Lake. The MN Land Trust will manage the contracting and construction of Perch Lake and Interstate Island via direct appropriation in partnership with MNDNR.

## Travel

### Does the amount in the travel line include equipment/vehicle rental?

No

### Explain the amount in the travel line outside of traditional travel costs of mileage, food, and lodging

NA

### I understand and agree that lodging, meals, and mileage must comply with the current MMB Commissioner Plan:

No

## Direct Support Services

### How did you determine which portions of the Direct Support Services of your shared support services is direct to this program?

Used Direct and Necessary calculator provided by MNDNR OHF staff.

## Federal Funds

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

Yes

#### Are the funds confirmed?

Yes

#### Is Confirmation Document attached?

[Yes](#)

- Cash : \$1,000,000

## Output Tables

### Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	0	0	0	33	33
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
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>33</b>

### Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	\$3,777,000	\$3,777,000
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$3,777,000</b>	<b>\$3,777,000</b>

### Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	0	0	0	33	33
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
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>33</b>

### Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	\$3,777,000	\$3,777,000
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$3,777,000</b>	<b>\$3,777,000</b>

### Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	\$114,454
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	-	-	-	-	\$114,454
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**

21,300

## Parcels

*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.*

### Parcel Information

#### Sign-up Criteria?

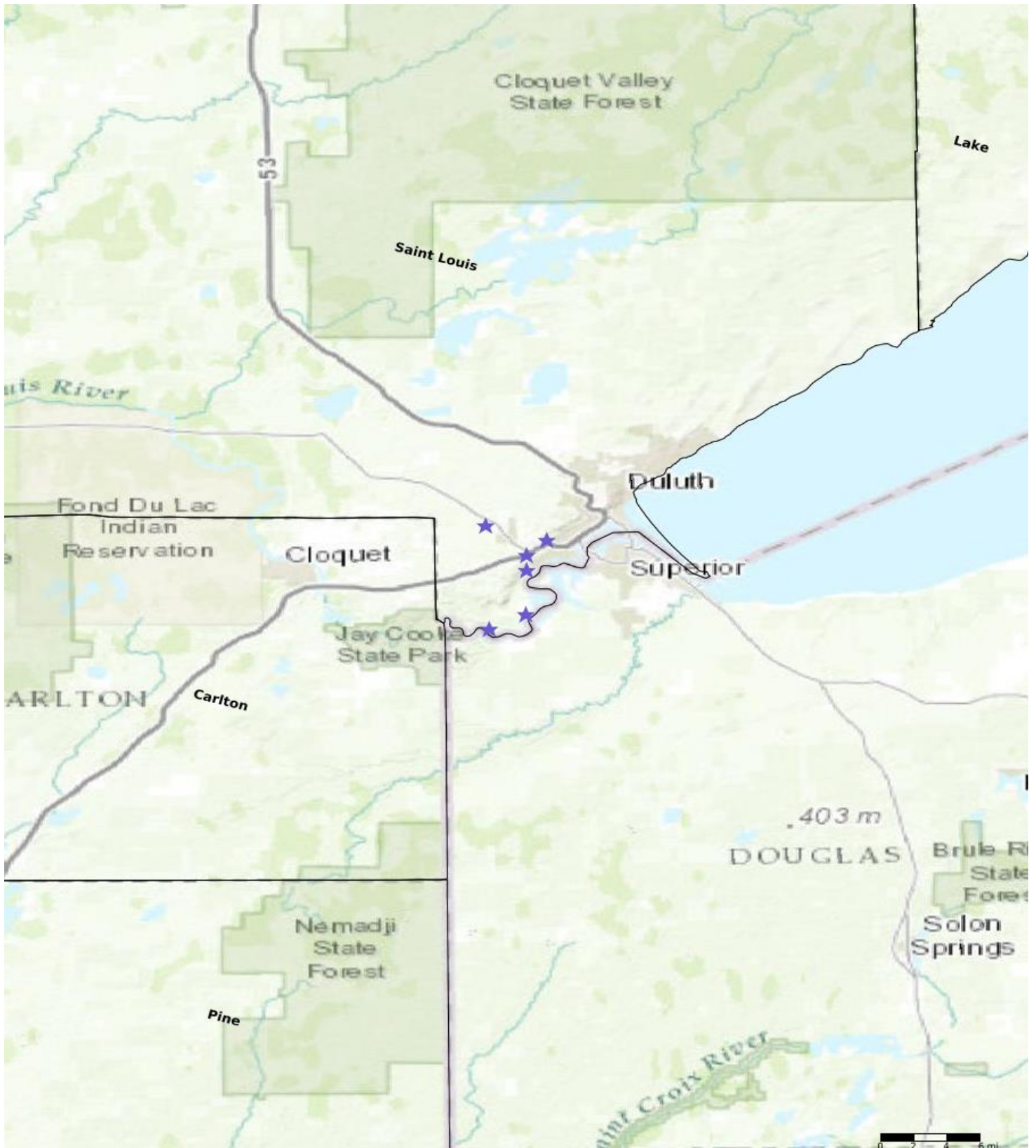
No

**Explain the process used to identify, prioritize, and select the parcels on your list:**

### Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection
Kingsbury Creek	St. Louis	04915214	0	\$500,000	Yes
Perch Lake	St. Louis	04815209	13	\$1,700,000	Yes
Mud Lake	St. Louis	04815202	10	\$0	Yes
Lower Knowlton Creek	St. Louis	04915223	0	\$200,000	Yes
Keene Creek	St. Louis	04915212	5	\$0	Yes
Interstate Island WMA	St. Louis	04915204	5	\$400,000	Yes

### Parcel Map



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