

# Request for Funding

## Lessard-Sams Outdoor Heritage Council Fiscal Year 2015 / ML 2014

**Program or Project Title:** St. Louis River Restoration Initiative

**Funds Requested:** \$3,221,400

**Manager's Name:** John Lindgren

**Title:** St. Louis River Area of Concern Program Manager

**Organization:** Minnesota Department of Natural Resources

**Street Address:** 5351 North Shore Drive

**City:** Duluth, MN 55804

**Telephone:** (218)-525-0853

**E-Mail:** john.lindgren@state.mn.us

**Organization Web Site:**

**County Locations:** No Counties Listed

### Ecological Planning Regions:

- Northern Forest

### Activity Type:

- Restore

### Priority Resources Addressed by Activity:

- Habitat

## Abstract:

MDNR will implement a programmatic approach to complete prioritized aquatic habitat restoration projects in the Lower St. Louis River Estuary through a partnership between Great Lakes Restoration Initiative and OHF to recover this nationally important fishery and migratory bird corridor.

## Design and Scope of Work:

The St. Louis River Restoration Initiative (SLRRI) is a programmatic approach to restore more than 1,400 acres of aquatic, wetland and terrestrial habitat within the Lower St. Louis River Estuary over the next 15-20 years. The Minnesota Department of Natural Resources (MNDNR) is working in conjunction with more than 15 partner agencies and organizations, including the MN Pollution Control Agency (MPCA), the National Oceanic and Atmospheric Administration (NOAA), the Minnesota Land Trust (MLT), Wisconsin DNR, the Fond du Lac Band of Lake Superior Chippewa, the US Fish and Wildlife Service (USFWS), the US Environmental Protection Agency, and the St. Louis River Alliance to prioritize and construct projects that will restore the fisheries and migratory waterfowl habitat of the Estuary. Currently, the partnership is working toward completion of the Implementation Framework, which will result in the production of the Remedial Action Plan (RAP) Update and establish the institutional pathway to delist the St. Louis River Estuary as a Great Lakes Area of Concern (AOC). The RAP update will also define the prioritized list of actions, which describes Grassy Point and other projects critical to the restoration of the estuary. Completing the projects identified in RAP update will return the St. Louis River estuary to one of Minnesota's and the Great Lakes' premier recreational fisheries.

In this phase of the project, the MNDNR in partnership with MLT and other agencies charged with implementing the initiative proposes to restore approximately 180 acres of aquatic habitat within the Grassy Point project area for FY 2015 through 2017. The agency and initiative partners will accomplish restoration objectives that will include: 1) restoration of submerged aquatic vegetation beds on a site degraded by historic log milling activities to improve the quality and quantity of habitat for species such as muskellunge, smallmouth bass, walleye and lake sturgeon 2) establish a bathymetry within the project area that will enhance the access by recreational anglers and boaters and 3) channel and floodplain restoration to improve sediment transport to the floodplain and reconnect spawning and rearing habitat.

A conceptual design plan for Grassy Point was developed by a biological consulting firm contracted by MPCA. The plan includes a tiered list of restoration objectives. The three tiers of project objectives for Grassy Point are summarized below.

- Tier 1 (Open Water Habitat and Functional Littoral Zone): Restoration of open water habitat through removal of wood waste and, as needed, capping with new substrate, resulting in a net deepening of the bay. In conjunction with this, the littoral zone will be improved to create a more natural gradient from the shore to the deep open water to promote growth of varied plant communities. Construction of an island to provide beneficial reuse of some wood waste and to also provide a barrier to wind generated wave energy.
- Tier 2 (Creek Channel Improvement and Wetland Reconnection): Improvement of Keene Creek channel immediately upstream of Grassy Point wetlands to redefine the creek channel and improve sediment delivery to the bay. Tier 2 also includes floodplain reconnection by constructing channels between the creek and riparian wetlands that will be periodically inundated.
- Tier 3 (Open Marsh Restoration and Upland Habitat Improvement): Creation of open marsh, to provide an ecological linkage between the aquatic and terrestrial habitats, as well as improvement of upland habitat near the bay and on-site reuse of dredged wood waste to create a habitat features such as the described island.

Engineering design, environmental assessment and permitting for the Grassy Point project is underway and will be complete in December 2013. This element of the project is being completed with a USFWS grant awarded to MLT. The engineering design will determine the total amount of wood waste to be removed and outline project phases to facilitate construction. The outcome of this work will move specific elements of the project to a point of implementation during the open-water season of 2014.

The proposed Grassy Point Restoration Project will be accomplished through a funding partnership between the State of Minnesota and NOAA. MNDNR has been awarded approximately 4.0 million dollars from NOAA's Great Lakes Regional Partnership Grant Program, which establishes long-term relationships with state resource management agencies that are completing restoration work in Great Lakes Areas of Concern (AOC's). The Grassy Point Restoration Project was one of several projects described in the proposal that NOAA will be supporting within the partnership agreement.

In addition to the primary objective of restoring aquatic habitat within the Grassy Point project area, the implementation partnership between MNDNR and MLT may also accomplish objectives at other priority restoration sites within the AOC. These potential project sites are described in the "accomplishments plan" associated with the 2013 OHF award received by MNDNR. The sites are also described in the successful proposal submitted to the NOAA Great Lakes Regional Partnership Grant Program. Currently, there is an inter-agency process being completed by the AOC partners that will more clearly define the roles, responsibilities and timeline for completing the prioritized list of actions that will be described within the St. Louis River AOC RAP Update. It is anticipated that this process of more clearly defining objectives and responsibilities will be completed by the fall of 2013, so that it would inform the composition of the "accomplishments plan" for a successful proposal.

## Planning

### **MN State-wide Conservation Plan Priorities:**

- H2 Protect critical shoreland of streams and lakes
- H3 Improve connectivity and access to recreation

- H4 Restore and protect shallow lakes
- H5 Restore land, wetlands and wetland-associated watersheds
- H6 Protect and restore critical in-water habitat of lakes and streams

#### **Plans Addressed:**

- A Vision for Wildlife and Its Use -- Goals and Outcomes 2006-2012
- Long Range Duck Recovery Plan
- Long Range Plan for Fisheries Management
- Long Range Plan for Muskellunge and Large Northern Pike Management Through 2020
- Lower St. Louis River Habitat Plan
- Minnesota DNR Nongame Wildlife Plans
- Minnesota DNR Strategic Conservation Agenda
- National Audubon Society Top 20 Common Birds in Decline
- National Fish Habitat Action Plan
- North American Waterbird Conservation Plan
- North American Waterfowl Management Plan
- Outdoor Heritage Fund: A 25 Year Framework
- State Comprehensive Outdoor Recreation Plan
- U.S. Fish and Wildlife Service Strategic Habitat Conservation Model
- Lower St. Louis River AOC Implementation Framework - Remedial Action Plan Update

#### **LSOHC Statewide Priorities:**

- Address Minnesota landscapes that have historical value to fish and wildlife, wildlife species of greatest conservation need, Minnesota County Biological Survey data, and rare, threatened and endangered species inventories in land and water decisions, as well as long-term or permanent solutions to aquatic invasive species
- Ensures activities for "protecting, restoring and enhancing" are coordinated among agencies, non profits and others while doing this important work; provides the most cost-effective use of financial resources; and where possible takes into consideration the value of local outreach, education, and community engagement to sustain project outcomes
- Leverage effort and/or other funds to supplement any OHF appropriation
- Produce multiple enduring conservation benefits
- Provide Minnesotans with greater public access to outdoor environments with hunting, fishing and other outdoor recreation opportunities
- Restore or enhance habitat on permanently protected land
- Use a science-based strategic planning and evaluation model to guide protection, restoration and enhancement, similar to the United States Fish and Wildlife Service's Strategic Habitat Conservation model

#### **LSOHC Northern Forest Section Priorities:**

- Protect shoreland and restore or enhance critical habitat on wild rice lakes, shallow lakes, cold water lakes, streams and rivers, and spawning areas
- Restore and enhance habitat on existing protected properties, with preference to habitat for rare, endangered, or threatened species identified by the Minnesota County Biological Survey

### **Relationship to Other Constitutional Funds:**

- Environmental and Natural Resource Trust Fund
- Clean Water Fund
- Parks and Trails Fund

Clean Water Fund: State resource management agencies (MNDNR and MPCA) have been actively promoting the application of Minnesota's constitutionally dedicated funds to the completion of the St. Louis River Restoration Initiative (SLRRI). The MPCA has been the primary agency coordinating the acquisition of support from the Clean Water Fund (CWF). Because MPCA is primarily interested in water quality issues and the SLRRI is equally driven by the mitigation of degraded water quality and impaired habitat, the CWF will be vitally important to completion of the initiative. MNDNR has closely coordinated with MPCA during the development of the SLRRI and will continue to work toward the effective integration of the CWF and OHF during the completion of this important initiative. To date, the CWF has been matched with funding from the United States Army Corps of Engineers (USACE) to characterize contaminated sediments within the entire Minnesota portion of the St. Louis River Area of Concern

(AOC). The CWF is also being matched with USACE funds to complete design and environmental review on several projects on the “prioritized list of action” associated with the AOC. It is anticipated that CWF will be matched with Great Lakes Legacy Act funding to mitigate contaminated sediment issues within areas that will also have habitat restoration components. Parks and Trails Fund: The City of Duluth in coordination with the AOC partners has successfully secured support from the Parks and Trails Fund to implement projects that will enhance the opportunity for recreational access to natural resources within the St. Louis River AOC. It is anticipated the partnership with the City of Duluth will be applied to the acquisition of funding to support the expansion of a trail system within the Grassy Point project area. The trail system would include raised walkways through the wetlands, bird and wildlife viewing areas and public fishing piers. Environmental and Natural Resources Trust Fund: The Trust Fund has not been applied to the implementation of projects within the AOC. However, MNDNR considers this fund to be a critical element to the successful implementation of the SLRRI. MNDNR, along with other AOC partners

## Accelerates or Supplements Current Efforts:

The St. Louis River Restoration Initiative (SLRRI) is an implementation based approach to complete a prioritized list of actions that were developed as an outcome of the St. Louis River Area of Concern (AOC) Implementation Framework Project. The MDNR is acting as primary facilitator of restoration activities on the Minnesota side of the AOC and is working toward the integration of funding sources to complete the restoration projects. MNDNR does not currently have the internal resources necessary for completion of the AOC restoration projects. Completion of the SLRRI is completely dependent upon the acquisition of support from State and Federal funding sources dedicated to the completion of these types of large regional initiatives. Moreover, it will be critically important for the AOC partners, specifically MNDNR, to secure funding from the OHF to meet the goal of delisting the St. Louis River AOC by 2025. It will also be critical for the AOC partners to secure State funding support to maximize the current opportunity for leveraging funding support from the Great Lakes Restoration Initiative, which has no long-term commitment for funding from federal legislators.

## Sustainability and Maintenance:

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. For example stream channel restoration construction is designed to mimic natural riffle-pool sequences and be maintained by the hydraulic processes of river flow. Restoration of submerged aquatic vegetation beds will consider the water depth, substrate type and wave energy environment required to maintain these systems.

Healthy and robust native communities are resistant to invasion by exotic species. A concern is the establishment of noxious non-native species such as zebra mussel, purple loosestrife, and Eurasian water milfoil in project sites. 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. Timely reseeding or plant establishment with native species immediately following construction activities is one of the best ways to reduce the risk of invasive exotic species establishment.

## Permanent Protection:

*Is the activity on permanently protected land and/or public waters per MS 103G.005, Subd. 15? - **Yes (Public Waters, City of Duluth)***

## Accomplishment Timeline

Activity	Approximate Date Completed
Grassy Point Habitat Restoration Project	2017
Other prioritized actions on St. Louis River AOC (see narrative)	2017

## Outcomes

### Programs in the northern forest region:

- Healthy populations of endangered, threatened, and special concern species as well as more common species *Fish and wildlife population outcomes will be measured by State and federal resource management agencies as part of the remedial action planning process for the St. Louis River AOC.*
- Greater public access for wildlife and outdoors-related recreation *This will be measured as acres of aquatic habitat restored to a condition that is accessible to angling and other outdoor based recreational activities.*

# Budget Spreadsheet

**Total Amount of Request: \$3,221,400**

## Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$310,000	\$163,800		\$473,800
Contracts	\$2,657,500	\$2,000,000	National Oceanic and Atmospheric Administration	\$4,657,500
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	\$10,000	\$0		\$10,000
Professional Services	\$15,000	\$0		\$15,000
Direct Support Services	\$221,400	\$0		\$221,400
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$6,500	\$0		\$6,500
Supplies/Materials	\$1,000	\$0		\$1,000
DNR IDP	\$0	\$0		\$0
<b>Total</b>	<b>\$3,221,400</b>	<b>\$2,163,800</b>	<b>-</b>	<b>\$5,385,200</b>

## Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Project Manager	0.75	3.00	\$205,000	\$54,600	USEPA	\$259,600
Administrative Assisstant	0.75	3.00	\$105,000	\$0		\$105,000
Program Coordinator	0.00	0.00	\$0	\$109,200	USEPA	\$109,200
<b>Total</b>	<b>1.50</b>	<b>6.00</b>	<b>\$310,000</b>	<b>\$163,800</b>	<b>-</b>	<b>\$473,800</b>

## Output Tables

**Table 1. Acres by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	180	180
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	180	180

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

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$3,221,400	\$3,221,400
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	\$3,221,400	\$3,221,400

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

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	180	180
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	0	180	180

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

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$0	\$0	\$0	\$0	\$3,221,400	\$3,221,400
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	\$0	\$3,221,400	\$3,221,400

**Table 5. Target Lake/Stream/River Miles**

4 miles



# Parcel List

## Section 1 - Restore / Enhance Parcel List

St. Louis

<b>Name</b>	<b>TRDS</b>	<b>Acres</b>	<b>Est Cost</b>	<b>Existing Protection?</b>
Grassy Point	04914217	180	\$3,221,400	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.

# Grassy Point

Grassy Point is an open water flat and sheltered bay in the mid-portion of the Estuary and the site of a sawmill in the late 19th and early 20th century. This site also includes the lower 1,000 feet of the Keene Creek stream channel. This project will remove mill waste to create sheltered bay bathymetry, restore warm water fish spawning areas along the Keene Creek channel, and address limiting factors for submersed aquatic vegetation beds on the estuary flats near the main channel.

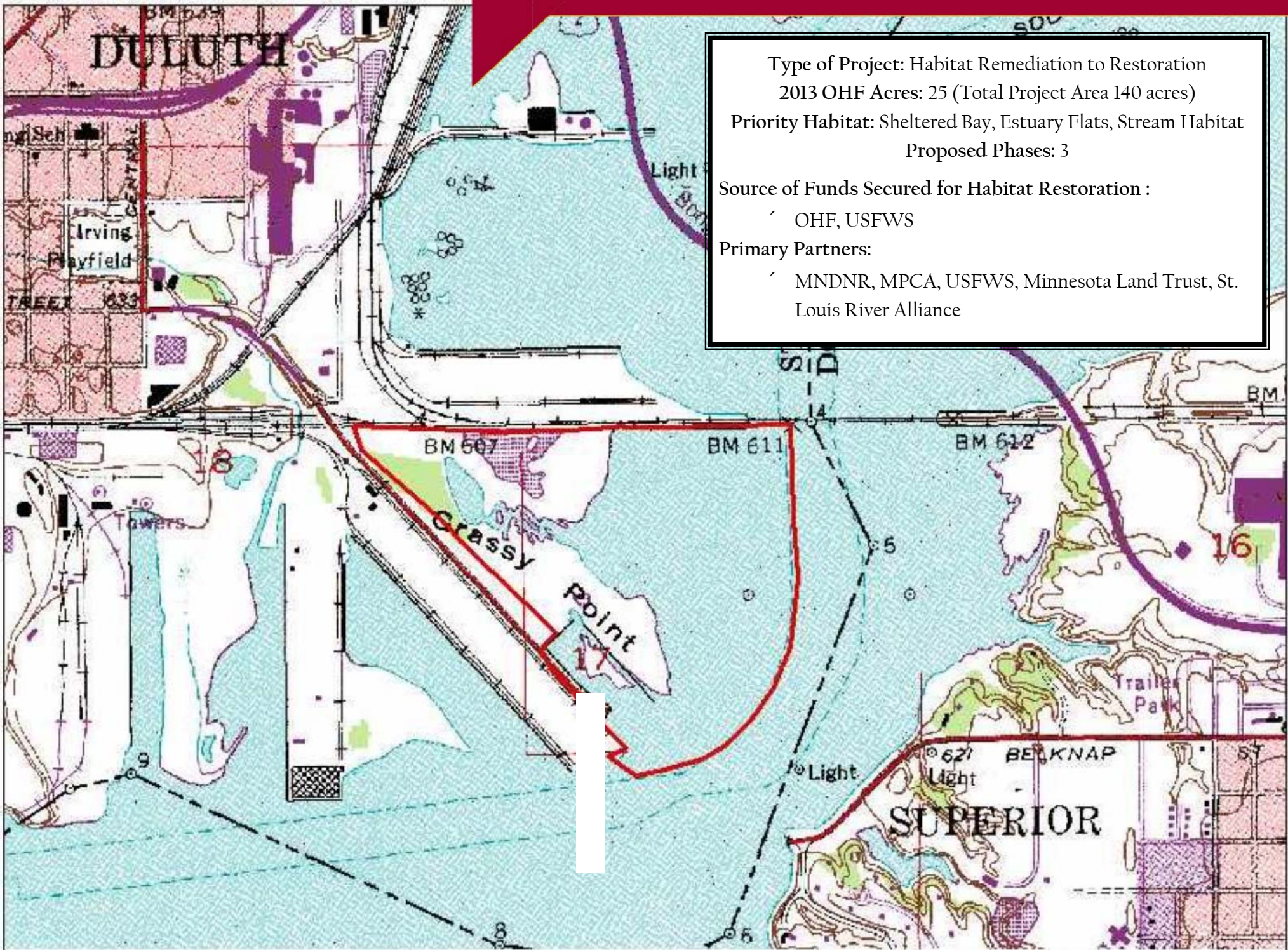
Sheltered bay habitat is considered the most important habitat type in the estuary. This habitat has been severely impaired over the last century reducing the productivity of key fish species. The restored stream channel and delta will provide spawning habitat for game fish such as muskellunge, northern pike, smallmouth bass, bluegill and black crappie, as well as habitat for critical forage species such as white sucker, shorthead redhorse and silver redhorse.

Construction will include removal of mill waste and abandoned infrastructure which will greatly enhance access for recreational anglers. This project will be coordinated closely with MPCA and USEPA due to the possible presence of environmental contaminants.

Conceptual planning for this project is included as part of the AOC Framework Project. Phase I of this project will be initiated through a grant from the USFWS Great Lakes Coastal Wetlands Program. Minnesota Land Trust will advance engineering design and permitting to begin construction of this project in 2013.

*Our river, Our future.*





Type of Project: Habitat Remediation to Restoration  
2013 OHF Acres: 25 (Total Project Area 140 acres)  
Priority Habitat: Sheltered Bay, Estuary Flats, Stream Habitat  
Proposed Phases: 3  
Source of Funds Secured for Habitat Restoration :  
    ✓ OHF, USFWS  
Primary Partners:  
    ✓ MNDNR, MPCA, USFWS, Minnesota Land Trust, St. Louis River Alliance