

Lessard-Sams Outdoor Heritage Council

Fiscal Year 2022 / ML 2021 Request for Funding



Date: May 28, 2020

Program or Project Title: St. Louis River Restoration Initiative Phase 8 (HRE03)

Funds Requested: \$6,250,000

Manager's Name: Melissa Sjolund

Organization: Minnesota Department of Natural Resources

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County Locations: St. Louis

Eco regions in which work will take place:

- Northern Forest

Activity types:

- Restore

Priority resources addressed by activity:

- Forest
- Habitat

Abstract:

MNDNR's St. Louis River Restoration Initiative (SLRRI) is a collaborative program enhancing and restoring the St. Louis River estuary. This 12,000 acre estuary is a unique resource of statewide significance. SLRRI's vision for the estuary includes diverse, productive, and healthy aquatic and terrestrial ecosystems of the river and watershed. MNDNR and MN Land Trust's SLRRI Phase 8 will restore an additional 190 acres of priority aquatic, wetland, and forested habitat for important fish, game, and SGCN. To date, the OHF has supported approximately 661 acres of estuary habitat restoration, leveraging over \$23 million in federal funding.

Design and scope of work:

The SLRRI Phase 8 will restore and enhance priority habitats in the St. Louis River estuary. With LOSHC support, SLRRI has successfully developed and implemented critical projects in the estuary since 2014. SLRRI employs a collaborative approach using a network of resource managers, researchers, and key stakeholders. As partners in the SLRRI, the MNDNR and MN Land Trust have effectively and efficiently restored wetland, stream and open water aquatic habitats while leveraging significant federal support.

Minnesota DNR will continue to restore and enhance 65 acres and 23,300 feet of priority habitats identified in the 2002 Lower St. Louis River Habitat Plan and 2019 St. Louis River Area of Concern (AOC) Remedial Action Plan (RAP), with an emphasis on the following:

Mud Lake is a warm water fish and migratory bird restoration project. Mud Lake is an estuarine bay and coastal wetland complex. It is degraded by legacy wood waste and a railroad causeway. The SLRRI team will work in close coordination with the MPCA, USEPA, and the City of Duluth to restore ecological function to support birds and aquatic life.

Kingsbury, Lower Knowlton, 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, remove barriers, and increase resiliency of estuary restoration efforts currently being completed with earlier OHF appropriations.

MN Land Trust will expand the work of SLRRI and begin restoration of avian habitat for globally and regionally important bird guilds in

the St. Louis River Estuary Important Bird Area (SLR IBA). The first phase of the effort includes restoration of 100 acres of forest for land birds and 25 acres of coastal wetlands for marsh birds:

Forest restoration will be conducted in priority degraded forest stands in the City of Duluth. Restoration will improve forest health of the stands, while maximizing the benefit to migrating and breeding birds. Proposed work consists of thinning, controlling invasive species, and planting native trees and understory plants with species and patterns that maximize bird habitat.

Hemi-marsh restoration will be conducted in coastal wetlands within the St. Louis River Natural Area in Duluth. Improvements will restore habitat conditions to be more attractive to migrating and breeding birds and other native wildlife communities. Proposed work includes recreating the historic ratio of water interspersed with emergent vegetation in locations now dominated by invasive species such as narrow-leaf cattail or reed canary grass.

MNDNR and MN Land Trust will continue to closely coordinate with SLRRI partners to integrate, prioritize, and develop additional fish and wildlife restoration projects to improve fish and wildlife populations throughout the estuary and surrounding watersheds. Work on project sites previously identified within the SLRRI program area will continue.

How does the proposal 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 quantity 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 of approximately 50% of the total cost. Minnesota's legacy funds are an integral part of the overall strategy to restore the health of this unique resource.

What is the degree of timing/opportunistic urgency and why it is necessary to spend public money for this work as soon as possible:

Mud Lake is the final AOC restoration project lead by MNDNR that requires construction funding. Construction projects in the AOC are scheduled to be completed by 2024, making the St. Louis River AOC a priority to receive federal GLRI "Focus Area 1" support. As the AOC program reaches its end, the SLRRI is transitioning into the completion of additional critical work identified in the Habitat Plan and Lake Superior Lakewide Action and Management Plan (LAMP). Maintaining the current momentum will ensure continued support of the SLRRI program by those administering state, federal, and local funds directed towards habitat restoration outside of the AOC program.

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

Science-based targeting is used to identify, design, monitor, and ensure the quality of all SLRRI projects. This comes in the form of comprehensive planning, team-lead project development, and partnering with researchers and subject matter experts.

The MNDNR worked with many local, state, tribal, and federal resource professional as well as stakeholders to develop the Habitat Plan, 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.

While developing a Remedial Action Plan for the estuary, AOC partners used a source-stressor model to identify legacy 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 Great Lakes Restoration Initiative funding also require the development of a Quality Assurance Project Plan to further ensure successful outcomes of the conservation actions.

Restoration Site Teams (RSTs) are developed for each implementation project to identify site-specific restoration targets and objectives. Natural resource managers, ecologists, biologists, and other partners associated with the estuary examine conceptual restoration

project alternatives and assess and evaluate habitat benefits and trade-offs between conceptual designs using both qualitative and quantitative measures of habitat value. Site-specific habitat needs and opportunities are also evaluated in the context of Estuary-wide restoration objectives and planned or completed projects. Knowledge transfer from previously completed OHF-funded projects is facilitated in RSTs by engaging local resource experts on multiple SLRRI projects.

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 sections of the Minnesota Statewide Conservation and Preservation Plan are applicable to this project:

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

Which other plans are addressed in this proposal:

- Lower St. Louis River Habitat Plan
- Minnesota's Wildlife Action Plan 2015-2025

Describe how your program will advance the indicators identified in the plans selected:

The Habitat Plan identifies conservation targets, strategies, and projects required to restore the estuary. Projects include fish habitat restoration at Keene and Kingsbury creeks, deep water preservation and sheltered bay restoration at Mud Lake, and restoration of natural drainage systems. Mud Lake restoration is also included as a Remedial Action Plan (RAP) management action required to remove the "loss of fish and wildlife habitat" impairment and delist the St. Louis River AOC.

Thirty-one Species of Greatest Conservation Need (SGCN) in the Minnesota Wildlife Action Plan and 16 SCGN as defined regionally and/or nationally by USFWS, are located within the SLR IBA (2018 data). Restoration will support conservation of these species through habitat enhancement.

Which LSOHC section priorities are addressed in this proposal:

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

Describe how your program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife as indicated in the LSOHC priorities:

The SLRRI Phase 8 restoration efforts in the estuary will produce the diverse, productive, and healthy aquatic ecosystems that will make it one of the top fishing destinations in Minnesota. This is based on the unparalleled variety of angling opportunities these habitats provide. Few waters in Minnesota have the ability to host destination quality fishing for walleye, muskellunge, smallmouth bass, lake sturgeon, and black crappie. Restorations and enhanced management of the estuary will increase the number, size, and quality of fish SCGN and game fish species, as well as improve angler and other recreational access.

The estuary and the associated ridgeline is one of the most important migratory stopover sites and breeding areas for birds along the Mississippi River and Great Lakes flyway. More than 130 species of birds (80% of bird species that occur in Minnesota) rely on the estuary and associated forest habitats for some portion of their life cycle. As described above, numerous marsh bird and land bird SCGN are expected to benefit from the 120 acres of avian habitat restoration.

One of the primary outcomes of the work described in this proposal will be habitat restoration and removal of barriers affecting more than 23,300 feet of stream shorelines. These shorelines will provide critical habitat to support all the "indicator species" described in that section.

Relationship to other funds:

- Not Listed

Describe the relationship of the funds:

Not Listed

Does this program include leverage in funds:

Yes

To date, the SLRRI program has secured \$20.5M in OHF funding and almost \$23M in non-OHF funds, a ratio of 53% in non-OHF funds.

MNDNR has secured \$500K from the St. Louis River Interlake/Duluth Tar NRDA settlement towards the construction of Kingsbury Creek restoration.

MNDNR is very close to securing a partnership agreement with the USACE that commits \$520,000 in federal funds for the design of the Mud Lake project. Because the agreement is not yet signed, MNDNR cannot include these funds as leverage in the proposal, but will be able to include them in the final Accomplishment Plan. 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.

MN Land Trust and the City of Duluth have applied for \$50K of federal funds for avian habitat restoration in forested areas of the Kingsbury Creek watershed.

The MNDNR and MN Land Trust have completed 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.

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:

Not applicable

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

Appropriation Year	Source	Amount
2014	US Army Corps of Engineers Partnership - Chambers Grove Restoration	\$130,000
2017	Natural Resources Damages Assessment - Kingsbury Bay/Creek Restoration	\$1,275,000
2017	Great Lakes Restoration Initiative - Kingsbury Bay, Grassy Point, Perch Lake Restoration	\$440,000
2019	Great Lakes Restoration Initiative - Perch Lake Restoration	\$400,000
2020	Great Lakes Fish and Wildlife Restoration Act - Interstate Island Restoration	\$79,000
2020	USFWS Coastal Program Funds - Interstate Island Restoration	\$15,000
2018	National Fish & Wildlife Foundation Save Our Great Lakes - Grassy Point Revegetation	\$95,192
2018	Great Lakes Restoration Initiative FWS AOC - Grassy Point Revegetation	\$75,000
2018	USFWS Coastal Program Funds - Grassy Point Revegetation	\$94,500
2015	NOAA Restoration Partnership - Chambers Grove Restoration	\$400,000
2013	Natl Fish & Wildlife Foundation Sustain Our Great Lakes - Knowlton Creek Restoration	\$400,000
2014	US Army Corps of Engineers Partnership - Knowlton Creek Restoration	\$122,500
2014	MN Clean Water Fund - Knowlton Creek Restoration	\$227,500
2015	Great Lakes Restoration Initiative - Knowlton Creek Restoration	\$700,000
2011	Great Lakes Restoration Initiative - Radio Tower Bay Restoration Phase I	\$665,000
2013	Great Lakes Restoration Initiative - Radio Tower Bay Restoration Phase II	\$1,500,000

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

St. Louis River habitat restoration projects are designed to be maintained by the natural processes that define these systems. Barring catastrophic events, these projects will not require future adjustment, or clean-up.

MNDNR Duluth Area Fisheries manages the Lower St. Louis River through regular monitoring, assessment, and regulation. They partner with Wisconsin DNR, MN Pollution Control Agency, USEPA Great Lakes Toxicology and Ecology Lab, and NOAA's National Estuarine Research Reserve in the effort to monitor and address issues associated with the long-term maintenance of habitat restoration outcomes in the estuary.

Forest habitat restorations will be done on publically accessible lands owned by the City of Duluth. Priority is given to actions within

designated Duluth Natural Areas. The City Natural Resources program will monitor and maintain restoration and enhancement projects to meet natural resources management plan objectives.

Healthy and robust native plant communities are resistant to invasion by exotic species. If invasive species successfully establish on a site they can disrupt the food web of the native community and result in reduced populations of desirable native species. Restoration of native plant communities will inhibit the establishment of invasives, and MNDNR is partnered with the other entities described above to control them.

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

Year	Source of Funds	Step 1	Step 2	Step 3
2022-25	GLRI (USEPA)	Post restoration monitoring (AOC sites only)		
All years	Fish & Wildlife Game & Fish fund	Regular Surveys/monitoring		
All years	WDNR, MPCA, USEPA, NOAA	Long-term monitoring at specific sites		
All years	City of Duluth Natural Resource Program	Long-term monitoring of forested project sites	Forest treatment, Invasive species control as needed	

Identify indicator species and associated quantities this habitat will typically support:

The proposed project(s) restore 100 total acres of forested habitat, supporting the following indicator species:

- Ovenbirds = 40 pairs (based on 16 pairs per 40 acres)
- Golden-winged Warbler = 15 pairs (based on 6 pairs per 40 acres)
- White-tailed Deer = Two (based on 1 pre-fawning deer per 50 acres)

The proposed projects restore approximately 90 wetland acres, supporting the following indicator species:

- Mallards = 35 (based on one per 2.47 wetland acres, noting that upland habitat for nesting is also needed)
- Trumpeter Swans = 2 pairs (based on one pair per 150 acres, and considering the total 300-ac Mud Lake wetland complex)

Trout (all species) serve as indicator species for regional trout streams while walleye, muskie, and northern pike are indicator species for lakes. The estimates below are based on population averages calculated for total project areas of 90 wetland and access improvements to 12 stream acres. These averages are generated from available data and published sources, and do not capture the variability inherent in aquatic populations. Natural populations, including healthy populations with good habitat, vary among locations, and also rise and fall within lakes and rivers.

- Trout (all species) = 480 lbs
- Walleye = 194 adults
- Muskie = 20 adults
- Northern Pike = 970 adults

Activity Details

Requirements:

If funded, this proposal 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 - **Yes (County/Municipal, Public Waters)**

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

Are the funds confirmed - **No**

What is the approximate date you anticipate receiving confirmation of the federal funds - **August 2020**

Land Use:

Will there be planting of corn or any crop on OHF land purchased or restored in this program - **No**

Land Use:

Have you received OHF dollars in the past through LSOHC? - Yes

Past appropriations and spending to date:

Apprp Year	Approp Amount Received	Approp Amount Spent to Date	Leverage as Reported in AP/th>	Leverage Realized to Date	Total Acres Affected in AP	Total Acres Affected to Date	Program Complete and Final Report Approved?
2012	3668900	3668200	2029000	2800800	208	208	Yes
2014	2290000	2029000	2097000	2097000	52	52	No
2016	2707000	1177000	2000000	2000000	40	40	No
2017	3392000	824600	1500000	1500000	192	192	No
2018	2013000	540000	0	1512000	36	36	No
2019	3777000	0	0	2000000	33	33	No

Accomplishment Timeline

Activity	Approximate Date Completed
MLT Coastal Marsh Restorations	June 2025
MLT Northern Forest Restorations	June 2025
Project prioritization, integration, and development; site-specific coordination	June 2026
Kingsbury Creek - Reduce sedimentation, restore cold-water fisheries habitat and enhance recreational fishing	December 2022
Mud Lake - Enhance hydrologic connection, remove legacy wood waste and restore ecological functions	December 2022
Keene Creek - Reduce sedimentation, restore cold-water fisheries habitat and enhance recreational fishing	December 2022
Lower Knowlton Creek - Remove fish passage barrier and restore a natural stream channel	December 2022

Budget Spreadsheet

Total Amount of Request: \$6,250,000

Budget and Cash Leverage

BudgetName	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$1,140,000	\$0		\$1,140,000
Contracts	\$4,795,000	\$500,000	NRDA	\$5,295,000
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	\$9,500	\$0		\$9,500
Professional Services	\$95,000	\$0		\$95,000
Direct Support Services	\$166,500	\$0		\$166,500
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$35,000	\$0		\$35,000
Supplies/Materials	\$9,000	\$0		\$9,000
DNR IDP	\$0	\$0		\$0
Total	\$6,250,000	\$500,000	-	\$6,750,000

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Restoration staff	0.50	4.00	\$190,000	\$0		\$190,000
EWR Restoration Consultant	0.50	3.00	\$188,000	\$0		\$188,000
EWR AOC Coordinator	0.50	3.00	\$196,000	\$0		\$196,000
FAW OAS	0.80	3.00	\$208,000	\$0		\$208,000
FAW Project Manager	1.00	3.00	\$358,000	\$0		\$358,000
Total	3.30	16.00	\$1,140,000	\$0	-	\$1,140,000

Budget and Cash Leverage by Partnership

BudgetName	Partnership	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	MN Land Trust	\$190,000	\$0		\$190,000
Contracts	MN Land Trust	\$350,000	\$0		\$350,000
Fee Acquisition w/ PILT	MN Land Trust	\$0	\$0		\$0
Fee Acquisition w/o PILT	MN Land Trust	\$0	\$0		\$0
Easement Acquisition	MN Land Trust	\$0	\$0		\$0
Easement Stewardship	MN Land Trust	\$0	\$0		\$0
Travel	MN Land Trust	\$500	\$0		\$500
Professional Services	MN Land Trust	\$20,000	\$0		\$20,000
Direct Support Services	MN Land Trust	\$51,300	\$0		\$51,300
DNR Land Acquisition Costs	MN Land Trust	\$0	\$0		\$0
Capital Equipment	MN Land Trust	\$0	\$0		\$0
Other Equipment/Tools	MN Land Trust	\$5,000	\$0		\$5,000
Supplies/Materials	MN Land Trust	\$1,000	\$0		\$1,000
DNR IDP	MN Land Trust	\$0	\$0		\$0
Total	-	\$617,800	\$0	-	\$617,800

Personnel - MN Land Trust

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Restoration staff	0.50	4.00	\$190,000	\$0		\$190,000
Total	0.50	4.00	\$190,000	\$0	-	\$190,000

BudgetName	Partnership	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	MN DNR	\$950,000	\$0		\$950,000
Contracts	MN DNR	\$4,445,000	\$500,000	NRDA	\$4,945,000

Fee Acquisition w/ PILT	MN DNR	\$0	\$0	\$0
Fee Acquisition w/o PILT	MN DNR	\$0	\$0	\$0
Easement Acquisition	MN DNR	\$0	\$0	\$0
Easement Stewardship	MN DNR	\$0	\$0	\$0
Travel	MN DNR	\$9,000	\$0	\$9,000
Professional Services	MN DNR	\$75,000	\$0	\$75,000
Direct Support Services	MN DNR	\$115,200	\$0	\$115,200
DNR Land Acquisition Costs	MN DNR	\$0	\$0	\$0
Capital Equipment	MN DNR	\$0	\$0	\$0
Other Equipment/Tools	MN DNR	\$30,000	\$0	\$30,000
Supplies/Materials	MN DNR	\$8,000	\$0	\$8,000
DNR IDP	MN DNR	\$0	\$0	\$0
Total		\$5,632,200	\$500,000	\$6,132,200

Personnel - MN DNR

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
EWR Restoration Consultant	0.50	3.00	\$188,000	\$0		\$188,000
EWR AOC Coordinator	0.50	3.00	\$196,000	\$0		\$196,000
FAW OAS	0.80	3.00	\$208,000	\$0		\$208,000
FAW Project Manager	1.00	3.00	\$358,000	\$0		\$358,000
Total	2.80	12.00	\$950,000	\$0		\$950,000

Amount of Request: \$6,250,000
Amount of Leverage: \$500,000
Leverage as a percent of the Request: 8.00%
DSS + Personnel: \$1,306,500
As a % of the total request: 20.90%
Easement Stewardship: \$0
As a % of the Easement Acquisition: -%

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

MNDNR Process: Used Direct and Necessary calculator provided by DNR OHF staff.
MLT Process: In a process that was approved by the DNR on March 17, 2017, we determined our direct support services rate to be 27%. The rate represents the relationship of indirect costs to direct costs and is fully explained in materials submitted to the DNR. The calculations are based on the most recent audited financial statements that were available at the time. We will apply the approved rate to personnel expenses funded by the grant.

What is included in the contracts line?

MNDNR budget: contracts for engineering and design, construction, and construction administration and quality control oversight
MLT budget: contracts for marine construction, forest treatment, tree planting and invasive species control.

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: - Yes

Describe and explain leverage source and confirmation of funds:

MNDNR has secured \$500K from the St. Louis River Interlake/Duluth Tar NRDA settlement towards the construction of Kingsbury Creek restoration. Two additional sources are pending and can be added to this Accomplishment Plan when secured. Additional funding sources are being pursued.

Does this proposal have the ability to be scalable? - Yes

Tell us how this project would be scaled and how administrative costs are affected, describe the “economy of scale” and how outputs would change with reduced funding, if applicable:

In order to delist the AOC by 2025, it is critical that the funding for Mud Lake construction be secured. It is highly desirable to acquire funding for critical non-AOC projects in order to demonstrate to the federal non-AOC GLRI partners that the state is committed to supporting these projects.

Has funding for these positions been requested in the past? - Yes

Please explain the overlap of past and future staffing and position levels previously received and how that is coordinated over multiple years?

FTEs listed in the proposal are an estimate of the personnel time required to deliver the grant outputs included in this proposal. An array of staff may work on projects to complete deliverables and manage the grant. MLT's basis for billing is the individual Protection or Restoration project we work on, ensuring allocation to the appropriate grant award. MLT also uses timesheet based accounting ensuring only those personnel funds actually expended are used to achieve the goals of the grant. Time involving coordination among projects is billed proportionately.

Output Tables

Table 1a. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	100	90	190
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	100	90	190

Table 2. Total Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$250,000	\$6,000,000	\$6,250,000
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	\$250,000	\$6,000,000	\$6,250,000

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	190	190
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	190	190

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	\$6,250,000	\$6,250,000
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	\$6,250,000	\$6,250,000

Table 5. Average Cost per Acre by Resource Type

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$2,500	\$66,667
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	\$0

Table 6. Average Cost per Acre by Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$0	\$0	\$0	\$0	\$32,895
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

Automatic system calculation / not entered by managers

Target Lake/Stream/River Feet or Miles

23300 ft

I have read and understand Section 15 of the Constitution of the State of Minnesota, Minnesota Statute 97A.056, and the Call for Funding Request. I certify I am authorized to submit this proposal and to the best of my knowledge the information provided is true and accurate.

Outcomes

Programs in the northern forest region:

- Healthy populations of endangered, threatened, and special concern species as well as more common species *Program monitoring conducted by others will evaluate the response of indicator species at project sites.*

Parcel List

Explain the process used to select, rank and prioritize the parcels:

The SLRRI is a partner to the Great Lakes Restoration Initiative (GLRI) and the Area of Concern (AOC) Process. As such, there is a Remedial Action Plan that identifies projects that need to be completed in order to delist the AOC. The list of actions was developed by a broad group of partner agencies and groups. The MNDNR was identified as the Agency Lead on several of the projects on the action item list, and has prioritized these projects for funding in previous proposals. Mud Lake is MNDNR’s final AOC project that is not fully funded; therefore, funding Mud Lake construction is prioritized in order to complete construction projects by 2024 and delist the AOC by the goal date of 2025.

Apart from the AOC delisting process, additional work identified in the Lower St. Louis River Habitat Plan and the Lake Superior Lakewide Action and Management Plan will need to be completed to achieve the full habitat restoration potential of the estuary and surrounding watersheds. Continued progress on non-AOC projects may be re-scaled, but remains critical to demonstrate to our Partners, including the federal GLRI, that the state is committed to continued success in the estuary.

Section 1 - Restore / Enhance Parcel List

St. Louis

Name	TRDS	Acres	Est Cost	Existing Protection?
Coastal marsh avian habitat restoration - various parcels in Duluth (centroid)	04915213	25	\$250,000	Yes
Forest avian habitat restoration - various parcels in Duluth (centroid)	05014221	100	\$100,000	Yes
Keene Creek Channel (6,500 ft stream)	04915212	0	\$0	Yes
Kingsbury Creek Channel Restoration (1,300 ft stream)	04915214	0	\$100,000	Yes
Lower Knowlton Creek (5,500 ft stream)	04915223	0	\$0	Yes
Mud Lake (10,000 ft river shoreline)	04815202	65	\$2,445,000	Yes

Section 2 - Protect Parcel List

No parcels with an activity type protect.

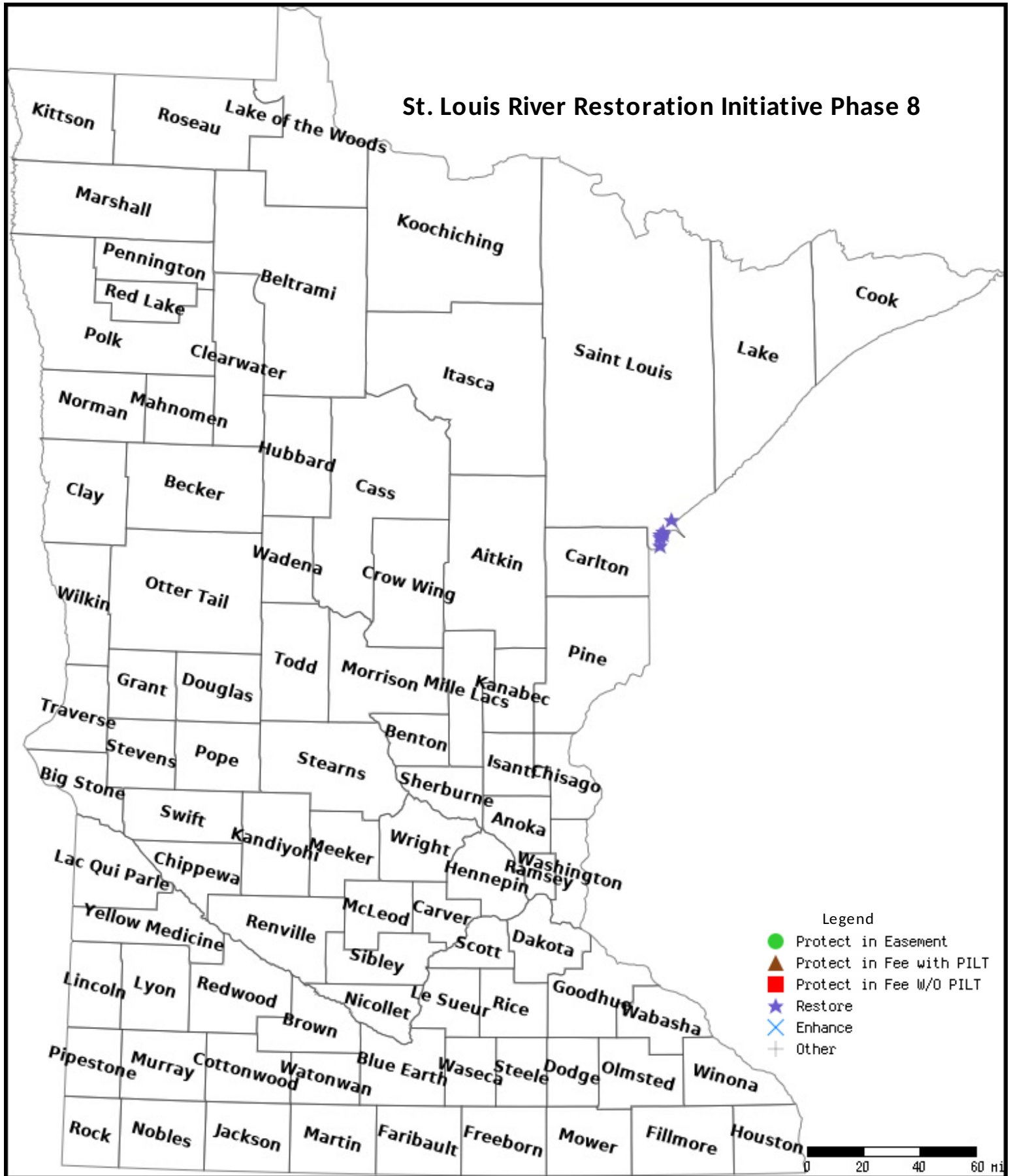
Section 2a - Protect Parcel with Bldgs

No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.

Parcel Map



Data Generated From Parcel List

Lessard-Sams Outdoor Heritage Council

Fiscal Year 2022/ ML 2021 Request for Funding

St. Louis River Restoration Initiative Phase 8 – Implementation Proposal Illustration

MNDNR’s St. Louis River Restoration Initiative (SLRRI) is a collaborative program enhancing and restoring the St. Louis River estuary. This 12,000 acre estuary is a unique, valuable resource of statewide significance. SLRRI’s vision for the estuary includes diverse, productive, and healthy aquatic and terrestrial ecosystems of the river and watershed. MNDNR and MN Land Trust’s SLRRI Phase 8 will restore an additional 190 acres of priority aquatic, wetland and forested habitat for important fish, game and SGCN. To date, the Outdoor Heritage Fund has supported approximately 661 acres of estuary habitat restoration and leveraged over \$23 million in federal funding.

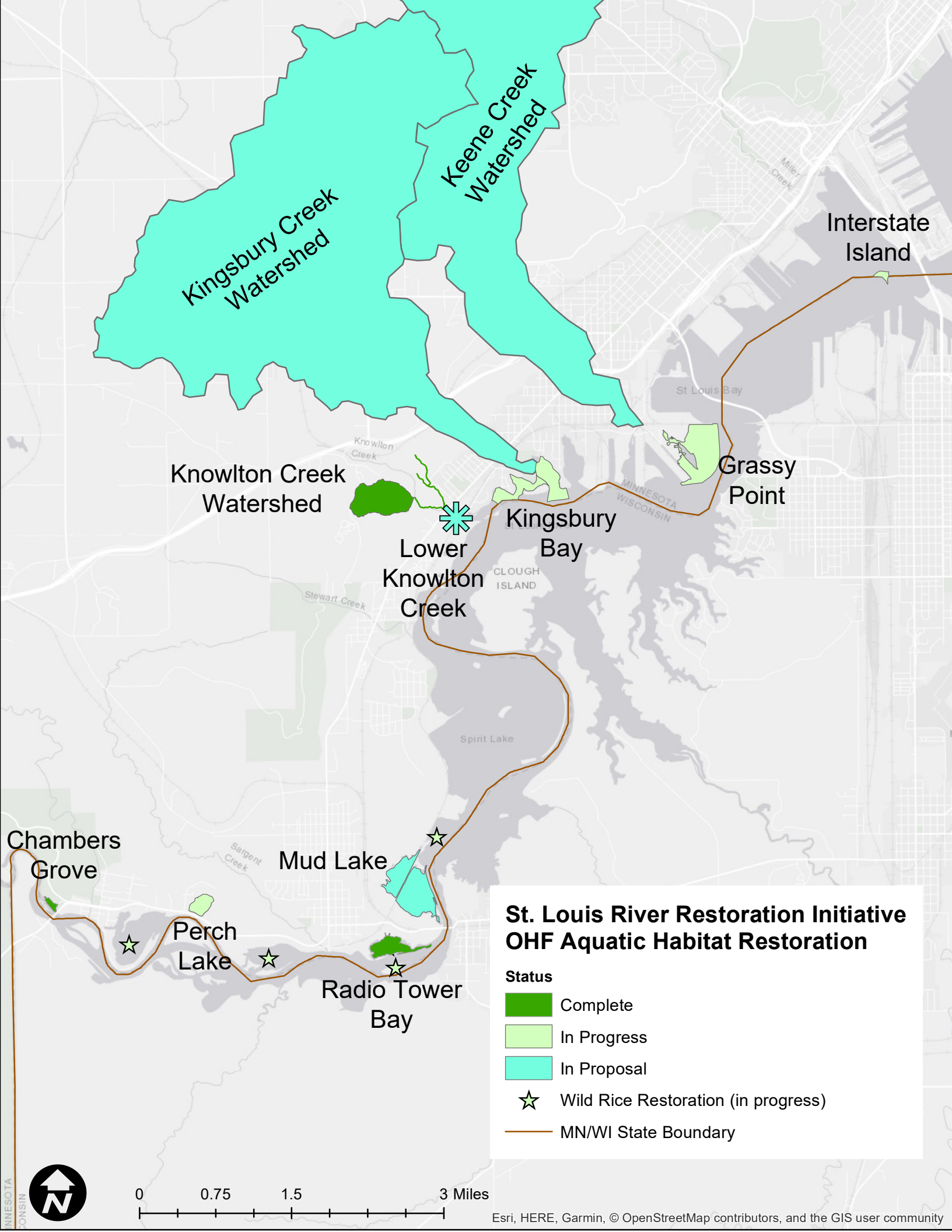
Proposed Projects:

Project	Total Acres	Estimated Completion	Outcome
Kingsbury Creek	5	December 2022	Reduce sedimentation, restore cold-water fisheries habitat and enhance recreational fishing
Mud Lake	130	December 2022	Enhance hydrologic connection, remove legacy wood waste and restore ecological functions
Keene Creek	10	December 2022	Reduce sedimentation, restore cold-water fisheries habitat and enhance recreational fishing
Lower Knowlton Creek	1	December 2023	Remove fish passage barrier and restore a natural stream channel
Forest avian habitat restoration	100	June 2025	Improve forest timber stands to benefit migratory and breeding birds
Coastal marsh avian habitat restoration	25	June 2025	Restore coastal marsh habitat to attract migrating and breeding birds
Total	151*		

*Total Acres includes acreage accounted for in this proposal and in prior approved awards to reflect entire project area.

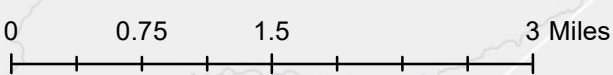
Past support from the OHF has been applied to many projects critical to restoring estuary fish and wildlife habitat including:

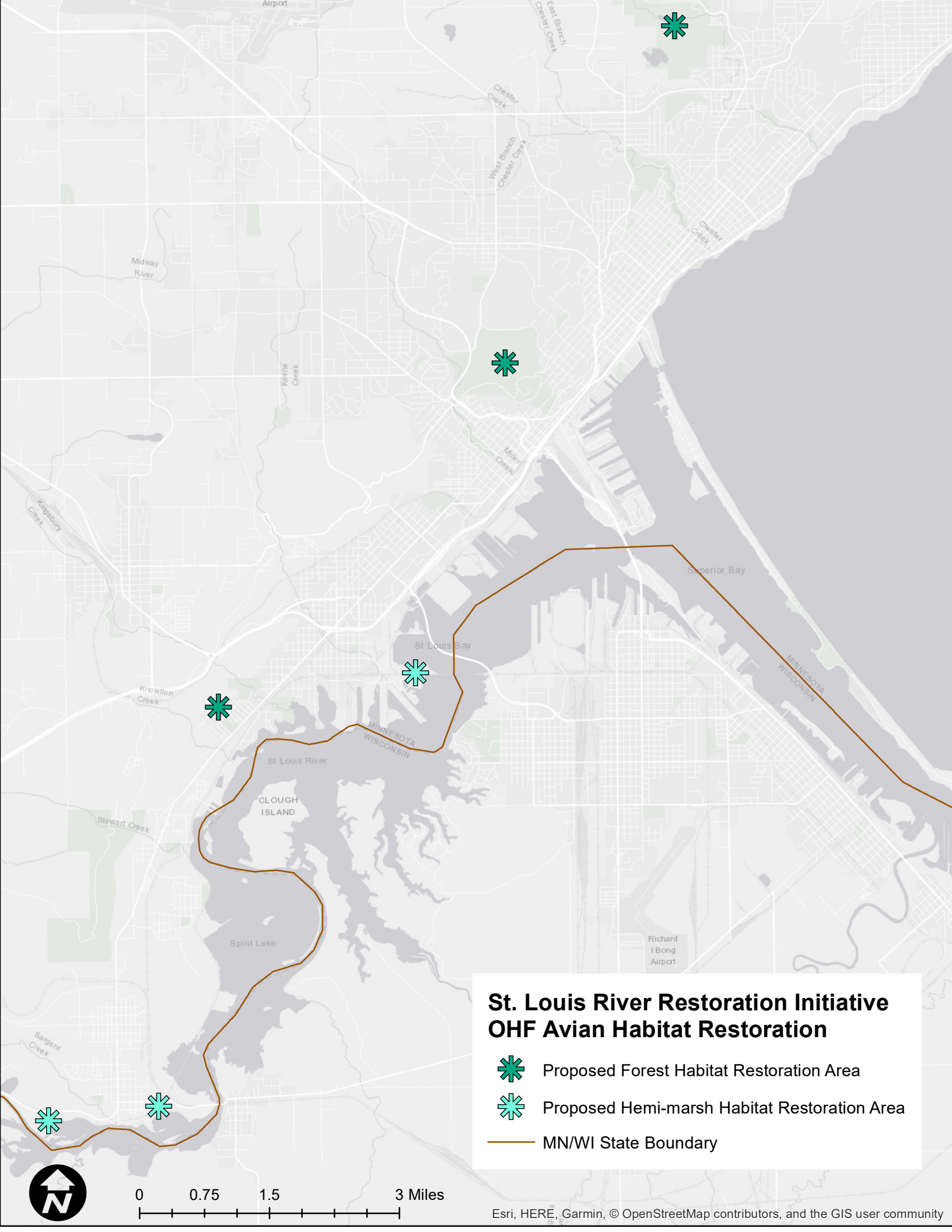
Project	Acres	Status	Outcome
Radio Tower Bay	30	Completed	Wood waste removed from estuary wetland
Chambers Grove	7	Completed	Sturgeon and walleye Spawning habitat improvement
Wild Rice	133	In progress	Restoring historic wild rice beds
Interstate Island WMA (Phase 1)	2	Completed	Restored critical tern nesting habitat
Interstate Island WMA (Phase 2)	5	In Progress	Piping Plover and Common Tern critical habitat restoration & expansion
Knowlton Creek	43	Completed	Restored cold-water trout stream
Kingsbury Bay/Grassy Point	240	In Progress	Restore sheltered bay (wood waste and sedimentation)
Perch Lake	21	In Progress	Restore hydraulic connectivity and fish habitat
Total	481		






St. Louis River Restoration Initiative OHF Aquatic Habitat Restoration

- Status**
- Complete
 - In Progress
 - In Proposal
 - Wild Rice Restoration (in progress)
 - MN/WI State Boundary





St. Louis River Restoration Initiative OHF Avian Habitat Restoration

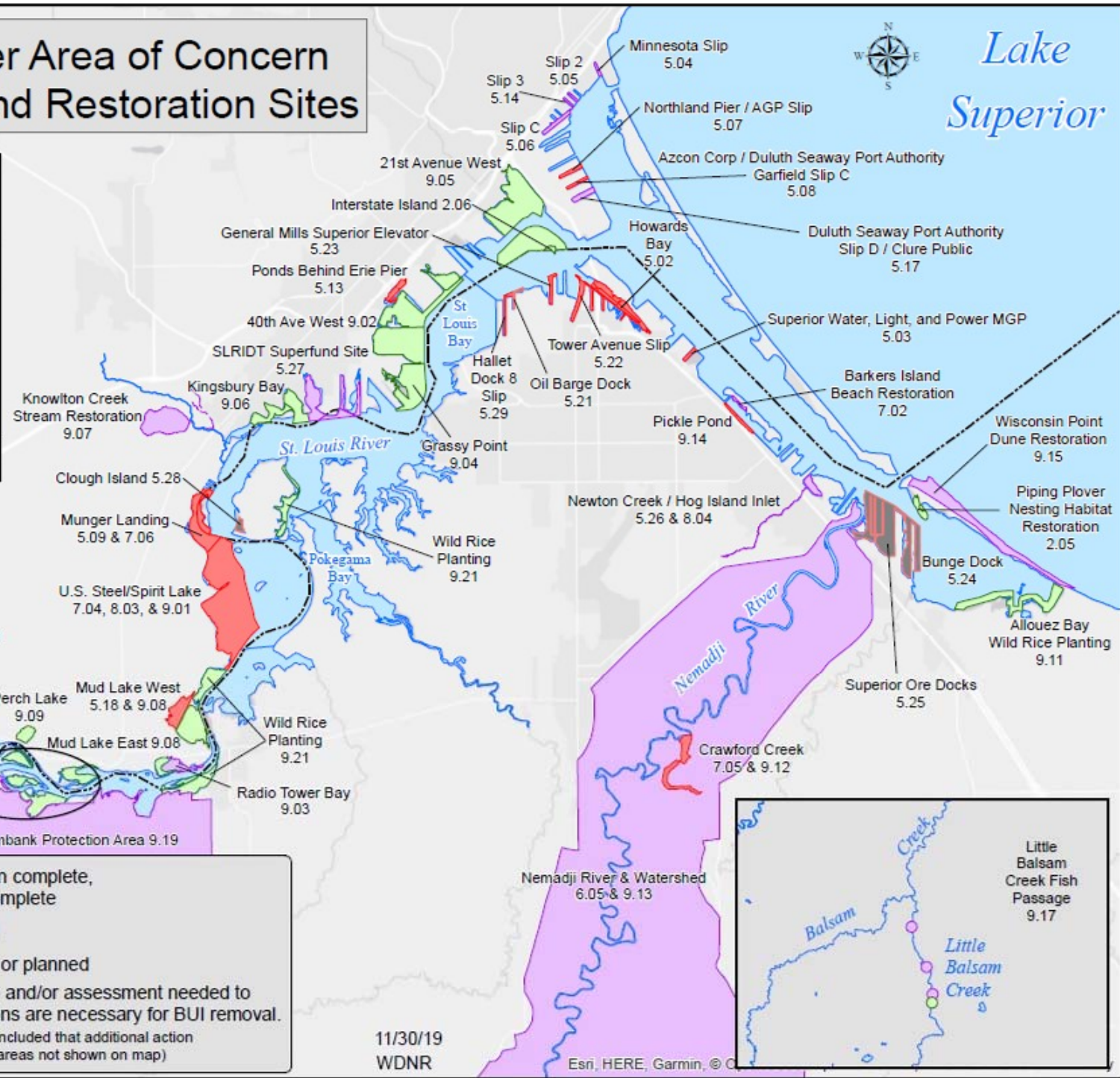
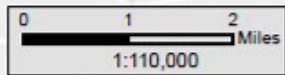
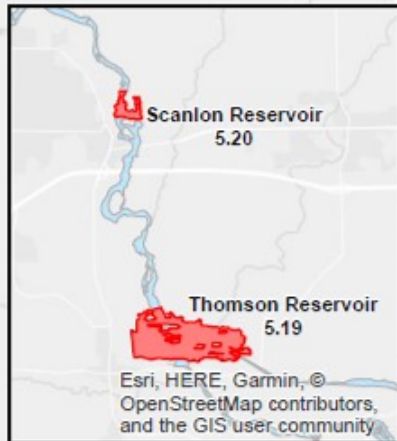
-  Proposed Forest Habitat Restoration Area
-  Proposed Hemi-marsh Habitat Restoration Area
-  MN/WI State Boundary



0 0.75 1.5 3 Miles

St. Louis River Area of Concern Remediation and Restoration Sites

Lake Superior

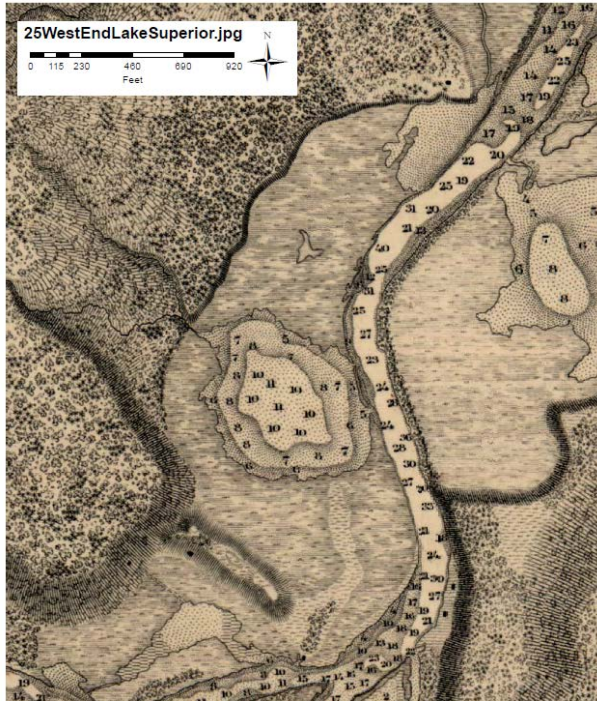


- Remediation or Restoration complete, monitoring underway or complete
 - Remedial action proposed
 - Restoration site underway or planned
 - Additional characterization and/or assessment needed to determine if remedial actions are necessary for BUI removal.
- Projects 5.15, 5.16, and 9.16 concluded that additional action is not needed to address BUIs (areas not shown on map)

11/30/19
WDNR

Esri, HERE, Garmin, © C

Map of Mud Lake in 1861



Air photo of Mud Lake in 1961



Mud Lake Preferred Alternative (concept design). Causeway retained for rail with a southern opening and new northern opening to optimize water flow.

