

# HTAC Update for TAC & MIC

## March 2022 Quarterly Overview



March 2, 2022  
HTAC Quarterly Meeting



Kris Liljeblad, AICP, PTP  
MIC Senior Planner

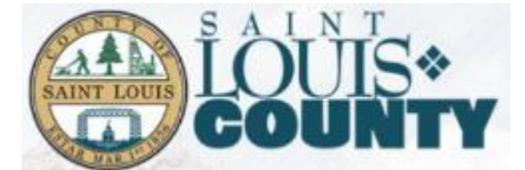
# HTAC Update: March 2, 2022 Agenda Items

- Lake Superior Coastal Resilience Mitigation Study
  - City of Duluth/St. Louis County/FEMA
- Erie Pier Management Plan Update
  - Duluth-Superior Port Authority
- Introduction to Great Lakes Oil Transport Team
  - Minnesota Sea Grant
- St. Louis River Area of Concern – 2022 Projects
  - Minnesota PCA
- St. Louis River Habitat Workshop – April 14th

# Project Team - LS Coastal Resilience Mitigation Study

## Project Partners

- City of Duluth
- St. Louis County
- Federal Emergency Management Authority
- Minnesota Homeland Security and Emergency Management



**FEMA**



## Project Consultants

- Ramboll
- MSA



**Funding provided by FEMA Advance Assistant Hazard Mitigation Grant Program**

# Background – LS Coastal Resilience Mitigation Study

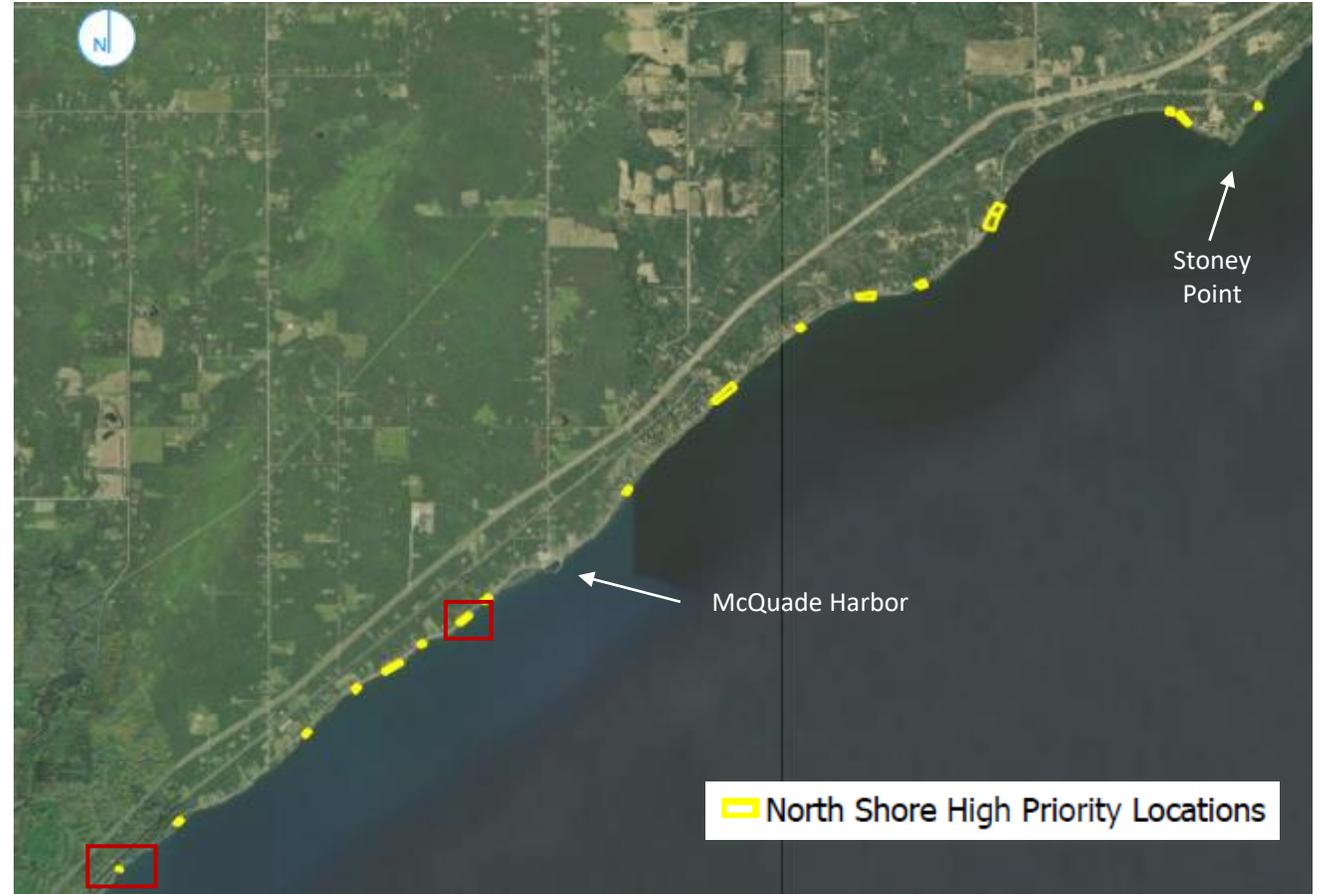
- Storm events have caused shoreline failure along Lake Superior for decades
- Increasing storm frequency, intensity, and fluctuating lake levels have increased the risk of shoreline collapse
- Ramboll evaluated available information to determine the high priority shoreline segments that will require mitigation
- This project team is working together to identify practical solutions to address shoreline erosion and bank failures
- Project scope includes portions of the North Shore and the harbor side of Park Point Recreation Area



Example of High Priority Shoreline Segment

# Results – LS Shoreline Prioritization Evaluation

- Shoreline segments with scores of 8 and 9 were determined to require mitigation in the near future
- 20 separate segments had a score of 8 or 9
- Total length of priority segments = 2.0 miles



## Next Steps – LS Coastal Resilience Mitigation Study

- Conduct an evaluation of mitigation options for each priority area
- Each area is unique; potential options will consider:
  - Shoreline failure type
  - Topography and bank angle
  - Wave action
  - Soil type
  - Geotechnical data
  - Construction costs
  - Permitting requirements
- A mitigation option for each priority area will be identified
- The City will evaluate grant opportunities to financially support the implementation of selected shoreline mitigation options
- [duluthcoastalinfrasturureresilience.com](https://duluthcoastalinfrasturureresilience.com) - Interactive engagement tools available



**Erie Pier Management Plan – 2022 Update**  
**Harbor Technical Advisory Committee**  
**March 2, 2022**

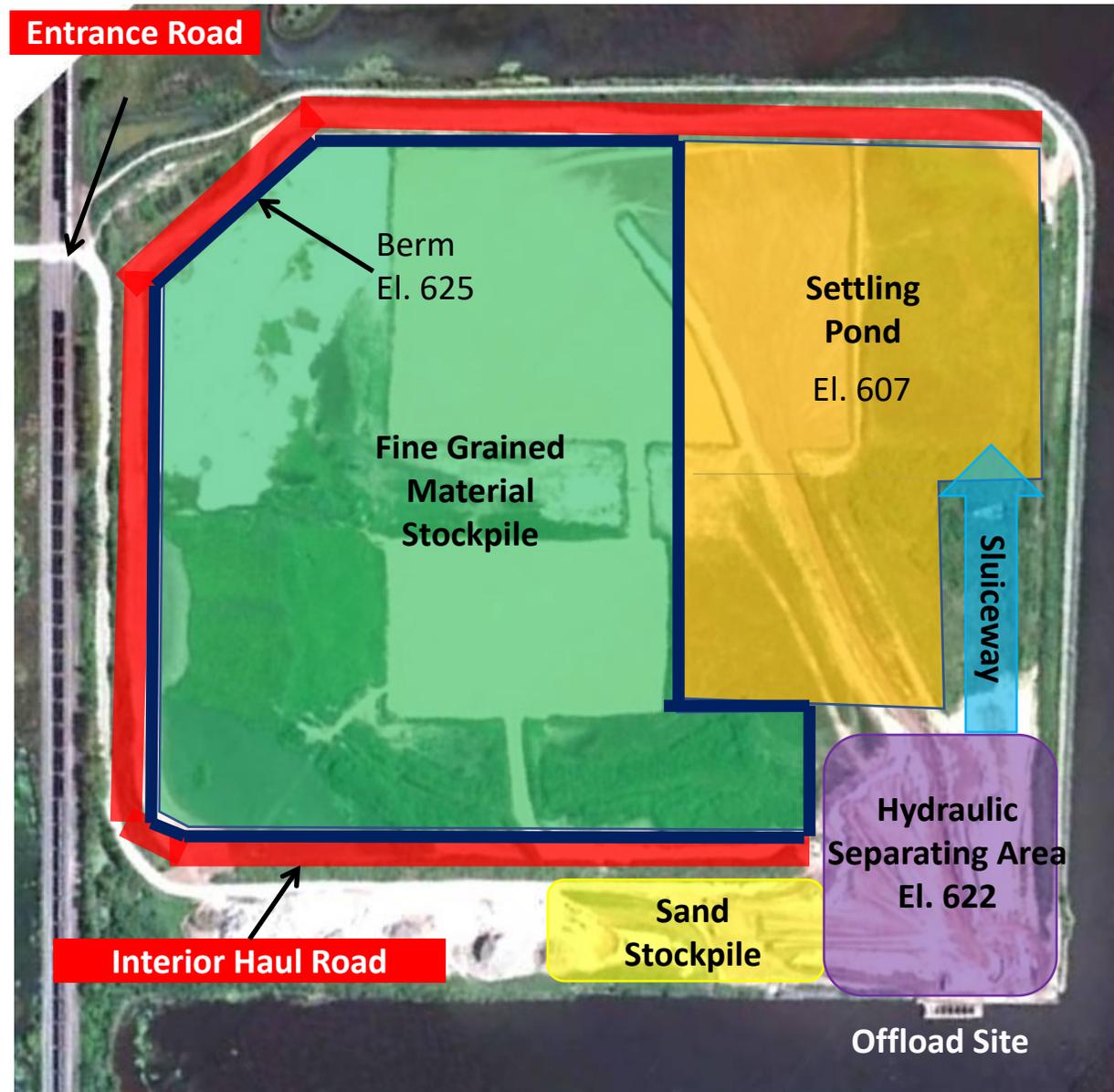
Jeff Stollenwerk, Duluth Seaway Port Authority



# Erie Pier Material Management Operations

## Overview of Operations

1. Offload Material
2. Hydraulically Separate Material
  - Sand “falls out” in separating area
  - Water carries fine grained material to settling ponds
3. Create Stockpiles
  - Sand is moved away from separating area and positioned into stockpiles
  - Fine grained material is excavated from ponds and stockpiled.
4. Truck Material Offsite for Beneficial Re-Use



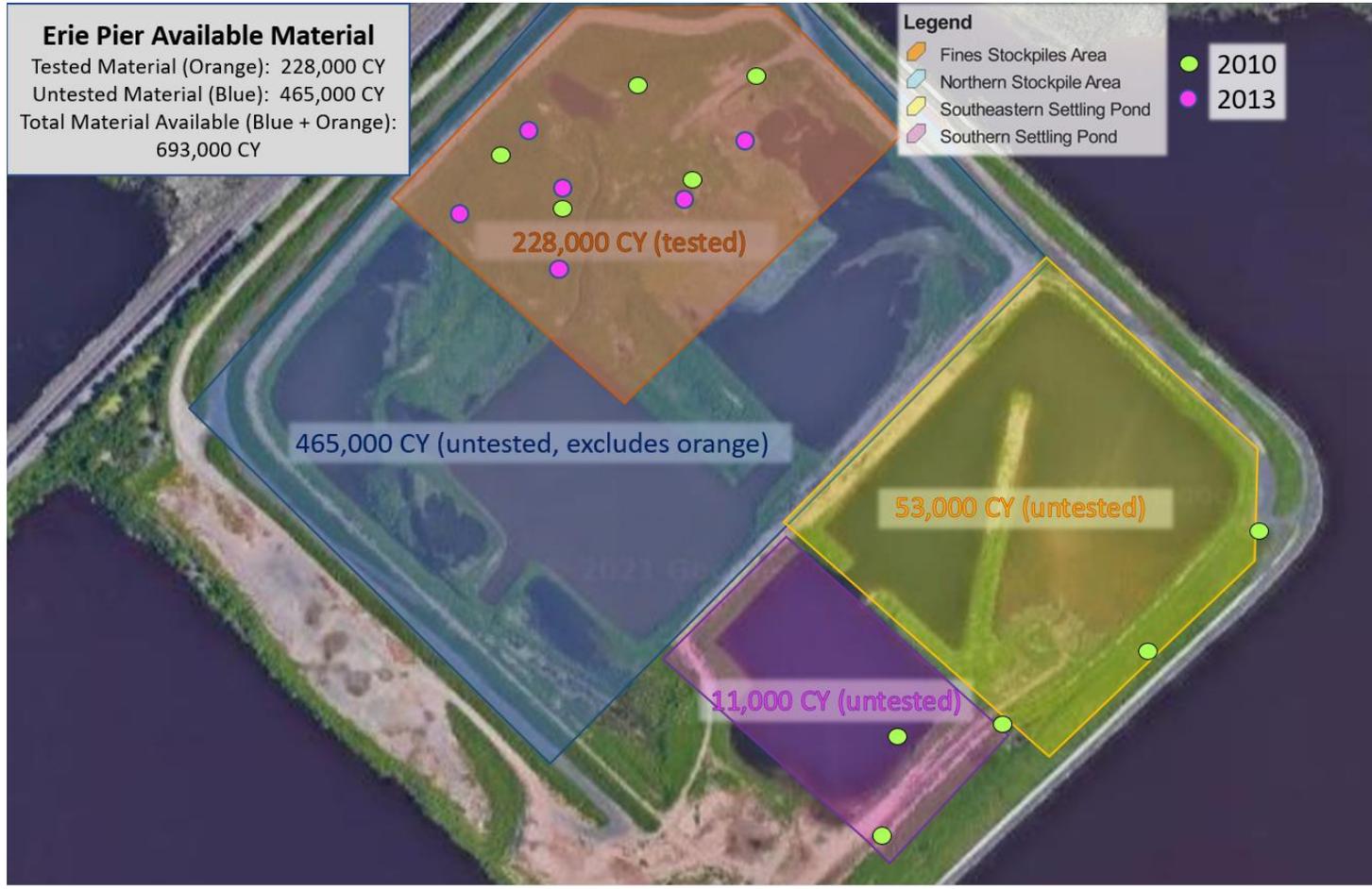
# **Erie Pier Management Plan Recommendations**

**15 total recommendations**

**Priority next steps:**

- **Update regulatory controls**
- **Data availability**
- **Develop markets for material**

# EPMP Recommendation Data Availability



# EPMP Recommendation

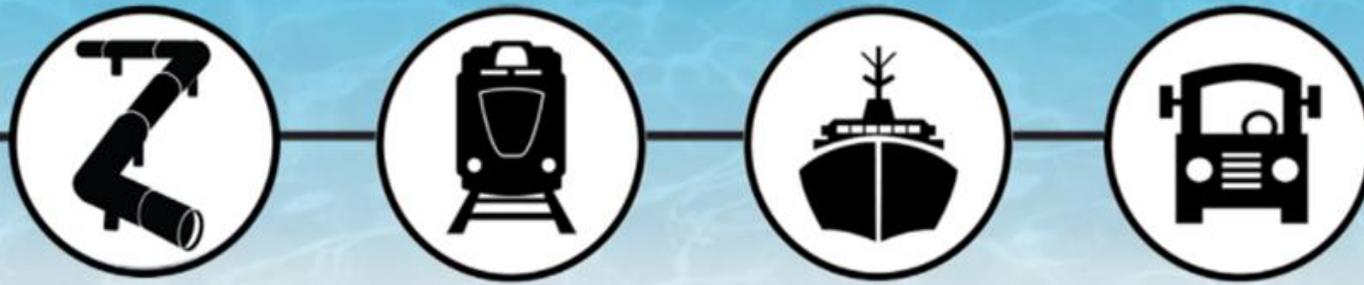
## Develop Markets for Beneficial Uses

### Jobs Act - \$5.5M

Facilitate beneficial use of fine material. Possible actions:

- Improve processing for sand recovery
- Stockpiling / dewatering
- Physical and chemical analyses
- Transportation to sites
- Document performance





# **Great Lakes Crude Oil Transport Team: Past, Present, and Future**

Kelsey Prihoda

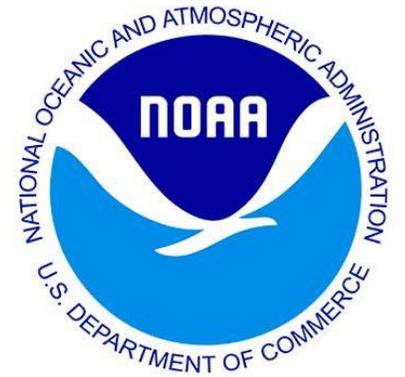
Great Lakes Transportation Extension Educator

University of Minnesota Sea Grant College Program

Harbor Technical Advisory Committee - 2022 Spring Meeting



uOttawa



The Great Lakes Crude Oil Transport Team is a collaborative of shipping, science, and outreach specialists from the Great Lakes, Lake Champlain, and St. Lawrence River regions focused on reducing risks associated with multiple modes of oil and other hazardous materials transportation.

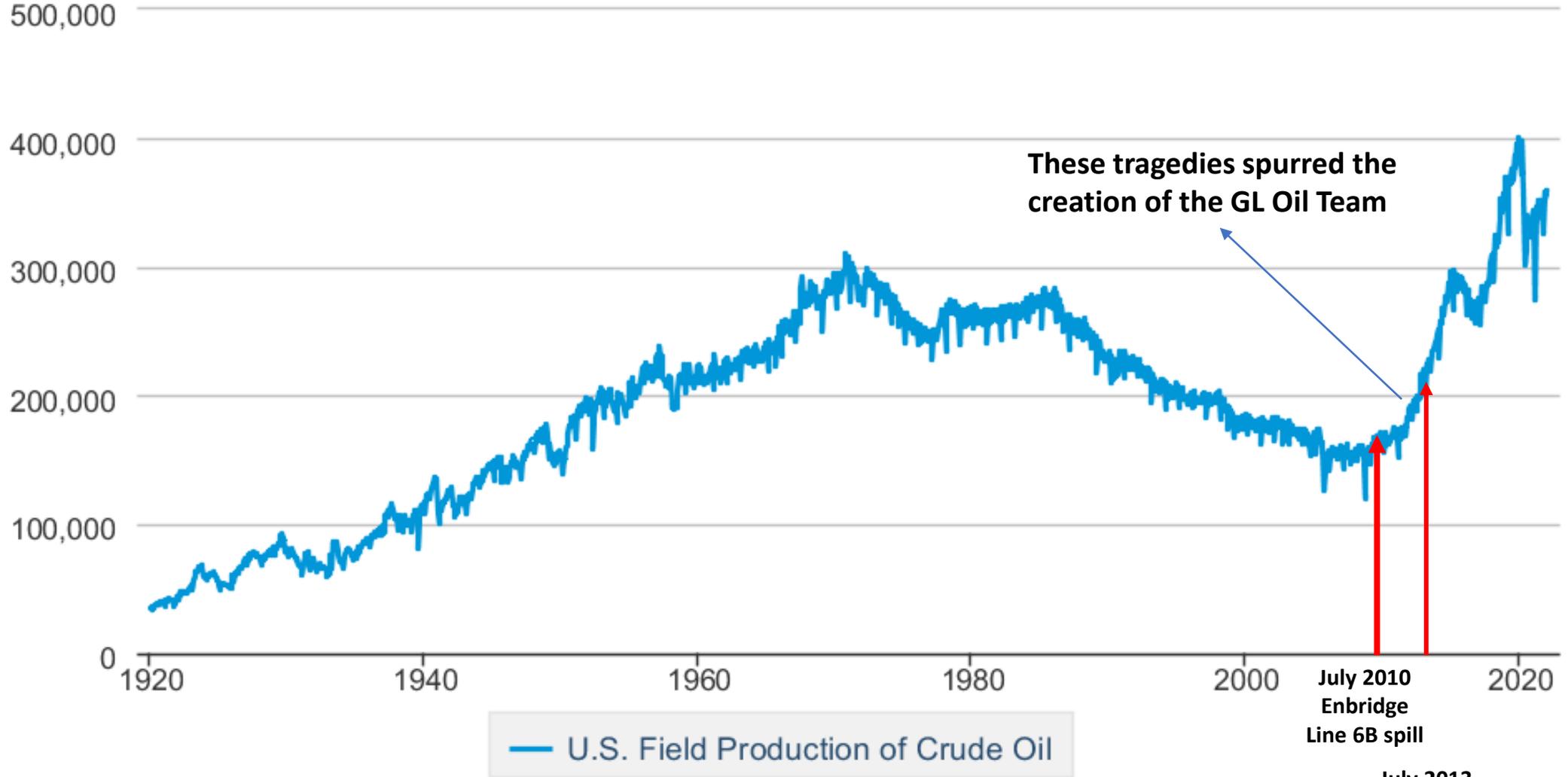
The collaborative is committed to the dissemination of accurate, neutral, and data-driven information through education, outreach, and relationship building in order to improve public safety, the region's economy, and environmental stewardship of our water resources.



**University at Buffalo**  
*The State University of New York*

# U.S. Field Production of Crude Oil

Thousand Barrels



Source: U.S. Energy Information Administration

## Great Lakes Crude Oil Transport Team:

- 2010-2013 spills increased concern
- 2014 MN Sea Grant began Team
- 2015 Workshops initiated & subsequently held in Racine, Chicago & Cleveland
- 2018-2019 Resource Library started
- 2021 Moved to monthly meetings, recruited new members/partners
- 2022 Strategic Plan Underway
- 2023 On – Implement the Plan:
  - Advisory Board
  - Stakeholder Engagement
  - Establish/Maintain Website
  - Grow Partnerships



## US produces 12.4 M Barrels of Crude/Day:

- We are the no. 1 Gas Exporter in the World
- Pipelines are the dominant transport mode
- Railroads are a distant 2<sup>nd</sup> transport mode
- Truck transport is important locally and in subregions
- No Oil is currently transported on the Great Lakes by ship

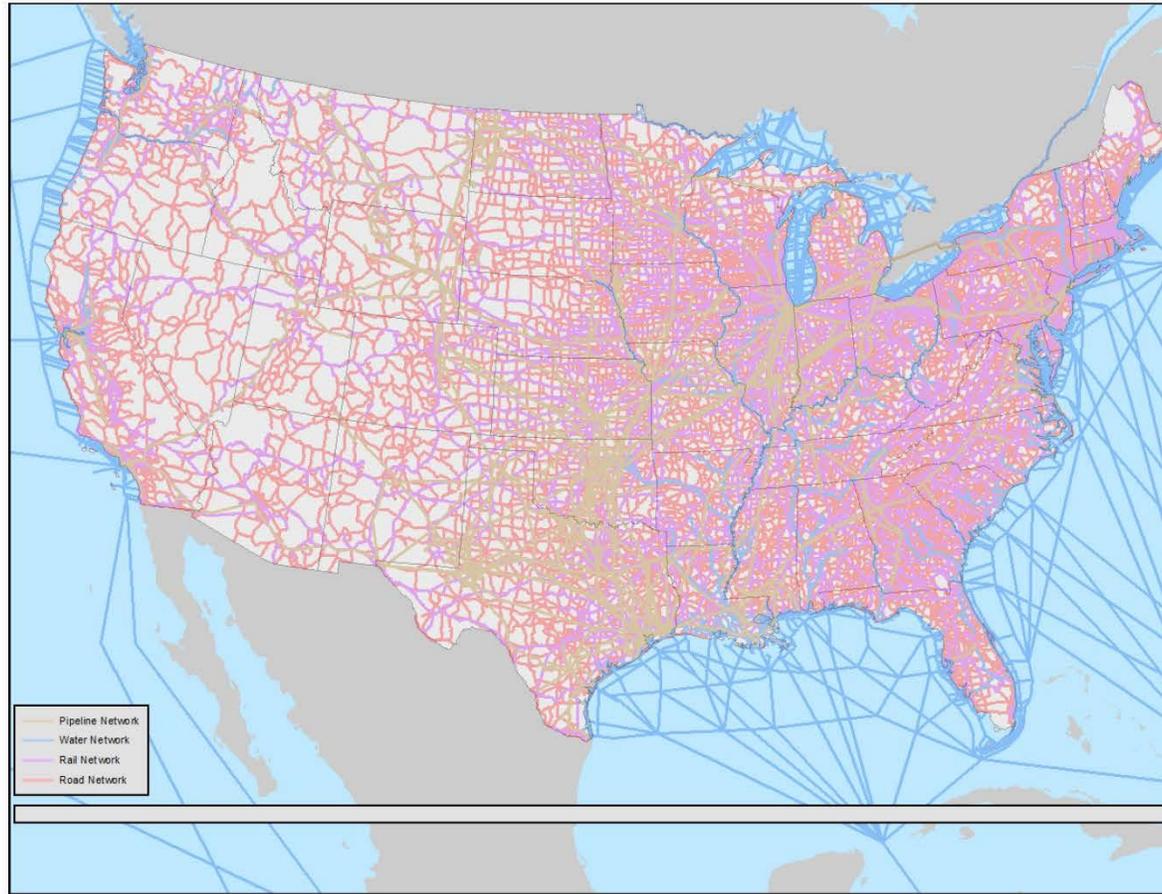
# Potential Future Project for GL Crude Oil Transport Team: **Risk-Based Decision Analysis Tool for Hazardous Material Movements**

## **Why?**

- Hazardous material movements pose risks
- No publicly-available tool to assess risk of different mode choices
- Current models focus on concrete metrics
- Safety and other societal and environmental concerns are complex

# FTOT Multimodal Network

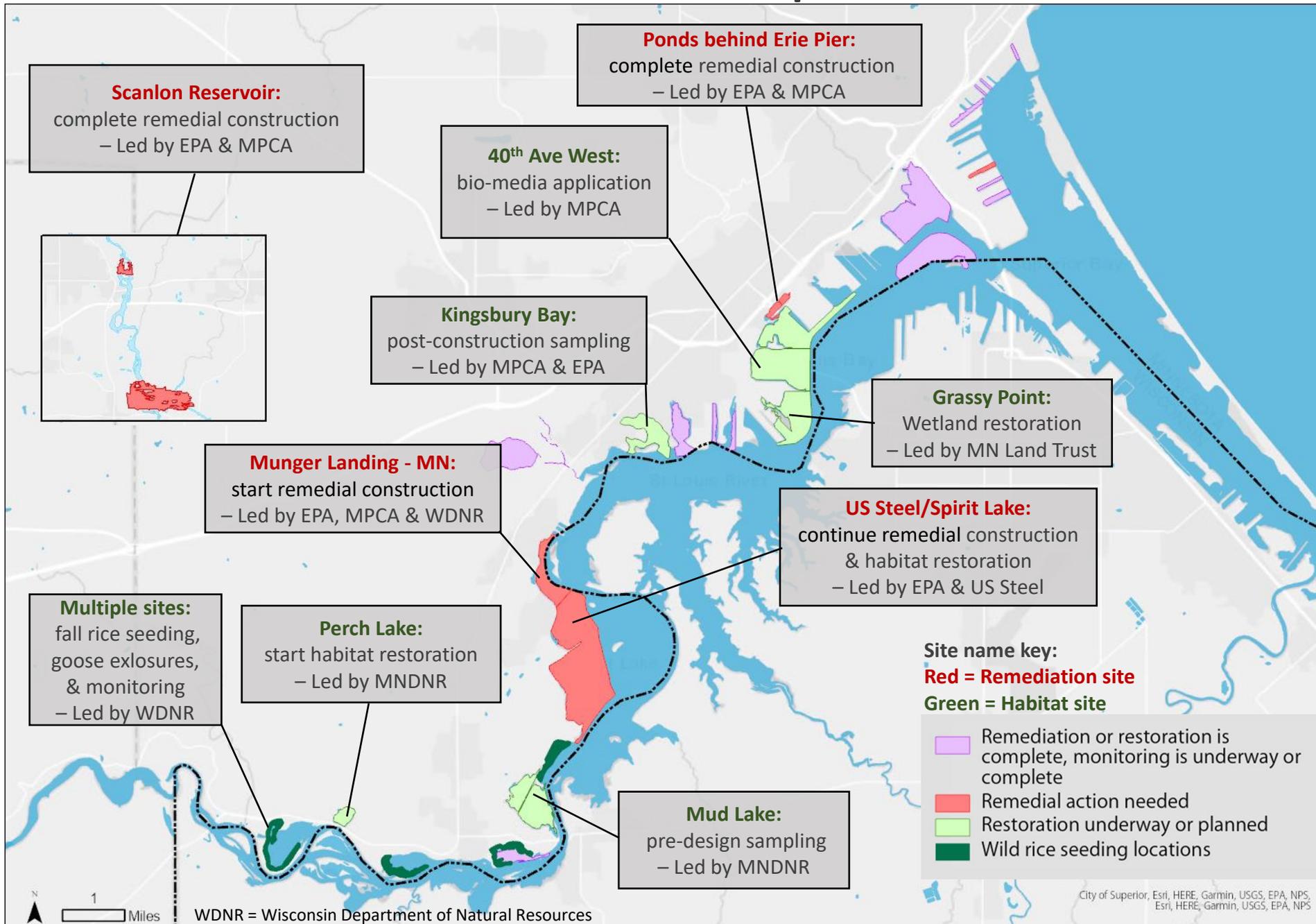
(Freight and Fuel Transportation Optimization Tool)



## Network components

- Freight Analysis Framework 4 (road)
- FRA Rail Network
- USACE waterways
- EIA pipeline data, adjusted to stations
- Pipeline tariff data
- Multimodal facilities

# St Louis River Area of Concern – Anticipated 2022 Field Work in MN



For more information or to request a project tour or presentation, please contact:



MN Pollution Control Agency  
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AOC Coordinator  
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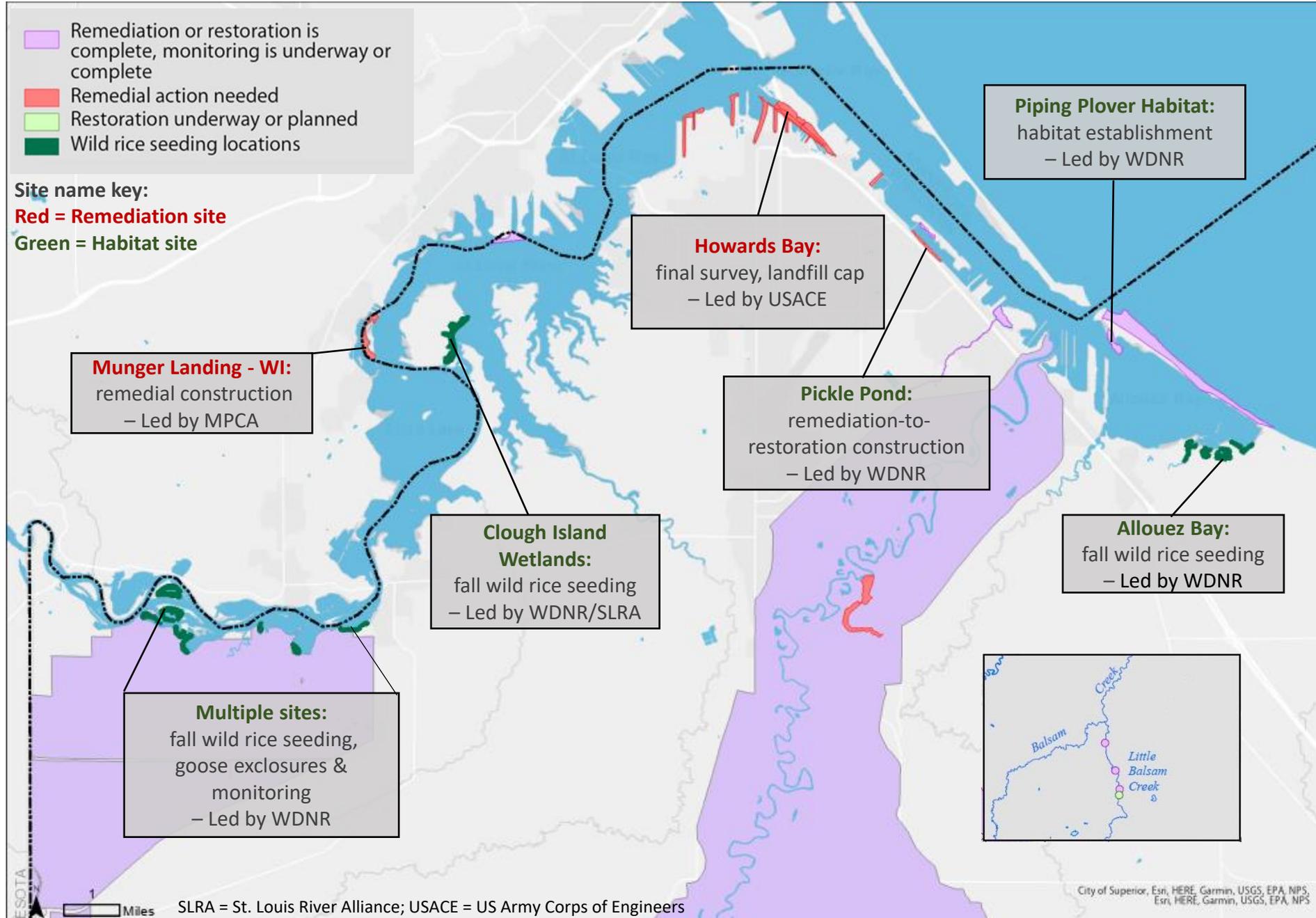


MN Dept. of Natural Resources  
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AOC Coordinator  
218-302-3245  
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Primary funding support is provided by the federal Great Lakes Restoration Initiative and administrative oversight is provided by the Environmental Protection Agency (EPA).



# St Louis River Area of Concern – Anticipated 2022 Field Work in WI



For more information or to request a project tour or presentation, please contact:



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Primary funding support is provided by the federal Great Lakes Restoration Initiative and administrative oversight is provided by the Environmental Protection Agency (EPA).



Save the Date:



St. Louis River Habitat Workshop – April 14, 2022