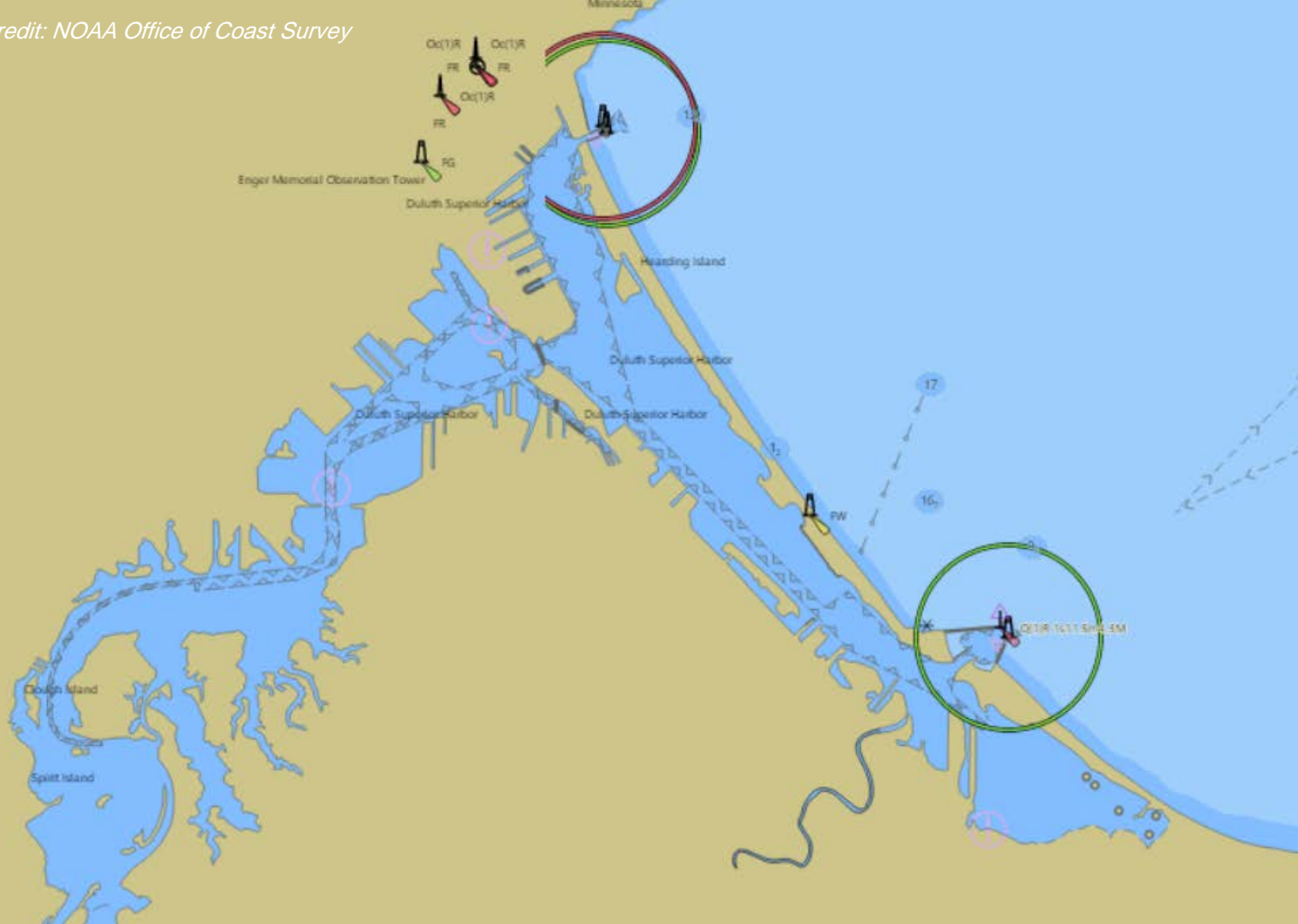




# IDENTIFYING BENEFICIAL USE PRIORITIES FOR DREDGED MATERIAL FROM THE PORT OF DULUTH-SUPERIOR

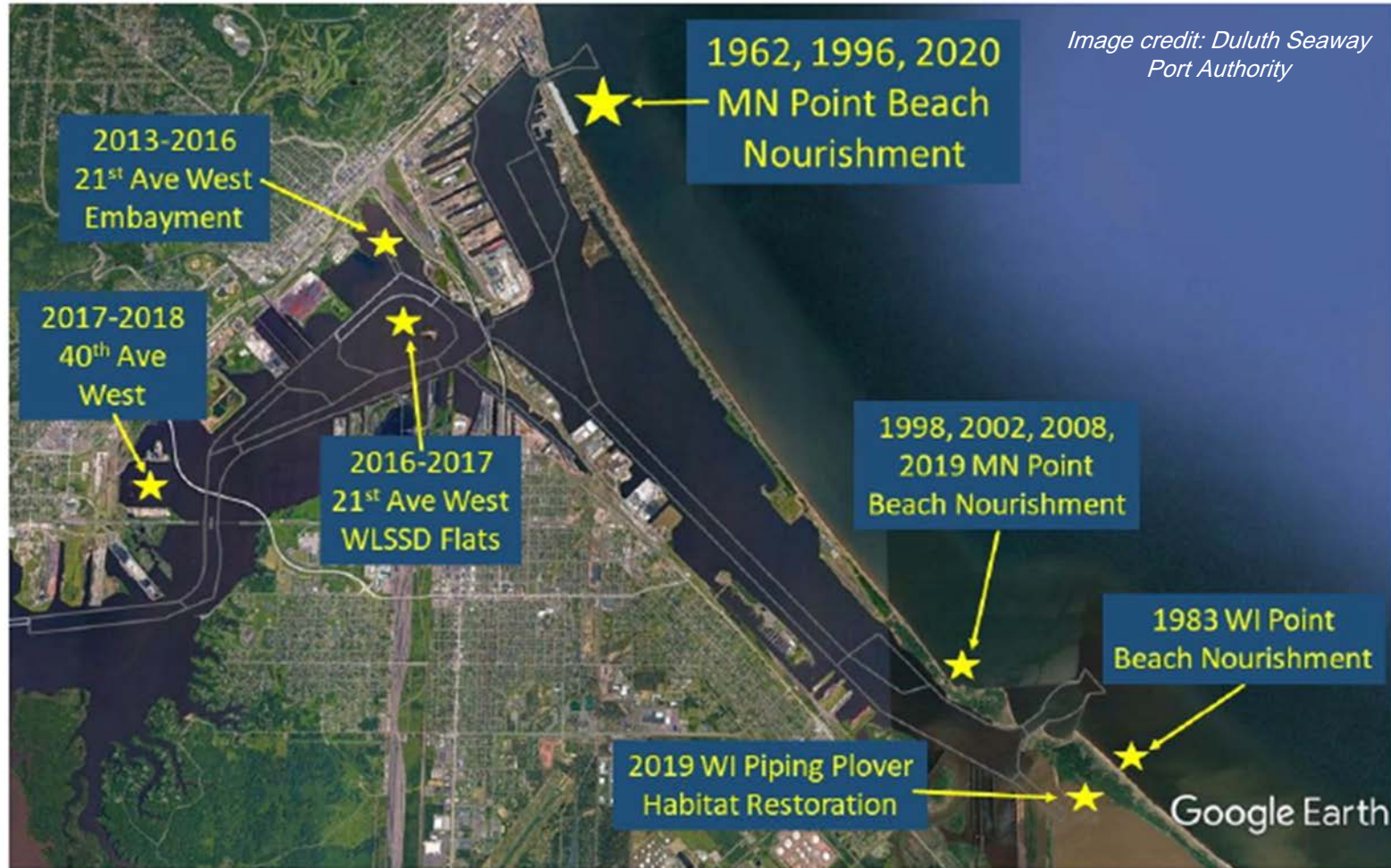
---

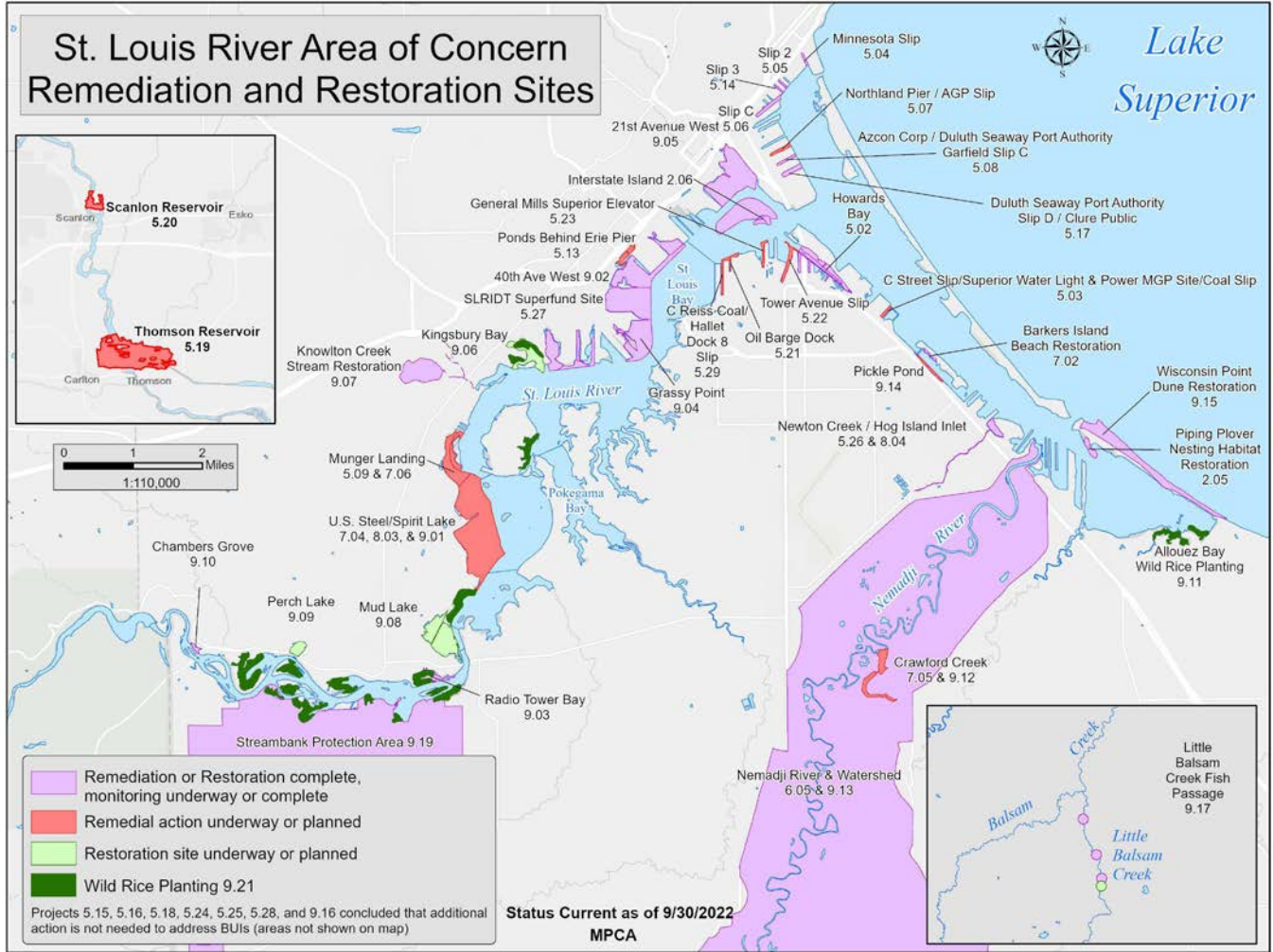
WORKSHOP SUMMARY  
*Kelsey Prihoda, Minnesota Sea Grant*





# Habitat Restoration Projects in Duluth-Superior Harbor Beneficially using Dredged Material





# PROJECT INTRODUCTION S

*Identifying Beneficial Use Priorities, 2025 - 2035*

## Goal

Identify beneficial use priorities for dredged material from the Port of Duluth-Superior from 2025 to 2035, so that the port can continue dredging operations and address planning needs in advance.

## Funding

Minnesota's Lake Superior Coastal Program

Duluth Seaway Port Authority

Wisconsin Sea Grant (in kind)

Minnesota Sea Grant (in kind)



**GREAT LAKES  
TRANSPORT**

# PROJECT INTRODUCTION

*Identifying Beneficial Use Priorities, 2025 - 2035*

## Partners

Dredging Subcommittee of the Harbor Technical Advisory  
Committee

Duluth Seaway Port Authority

Minnesota Sea Grant

Wisconsin Sea Grant

Work together to plan the workshop.

Attend the workshop.

Work together on workshop summary.



**GREAT LAKES  
TRANSPORT**

# PROJECT TIMELINE

Project Task	Timeframe	Outcome and/or Deliverable
Funding awarded	October 16, 2023	
Workshop planning meeting #1 with HTAC Dredging Subcommittee	October 26, 2023	Finalize presenter and attendee invitation list Develop participant agenda Agree on workshop date
Workshop planning meeting #2 with HTAC Dredging Subcommittee	December 15, 2023	Develop workshop facilitation strategy Develop evaluation criteria for prioritizing beneficial uses of dredged material
One-day workshop	January 31, 2024	Prioritize dredged material placement sites for 2025 – 2035 Identify a champion/local sponsor for each priority placement site Determine monetary value of environmental benefits identified for each priority placement site Train attendees on use of the USEPA DMDT
Debrief of the workshop with HTAC Dredging Subcommittee	February 29, 2024	Prepare outline of workshop summary and timeline for development and release
Development of workshop summary	March 29, 2024	Present recommendations to inform the Port of Duluth-Superior Dredge Material Management Plan



# HOMework!

## Workshop Methods



## 1. Project Profile Information

## 2. Rank the DMDT Criteria

### U.S. EPA Dredged Material Decision Tool - Project and Site Worksheet

Full Name:   
 Affiliation:

#### Worksheet Instructions

The DMDT process starts with gathering information from collaborators to create a list of viable beneficial use alternative options for inclusion in the analysis. For analysis, source material will be coming from Operation and Maintenance Dredging by the U.S. Army Corps of Engineers in the Port of Duluth-Superior, with the exact location (latitude and longitude) to be determined annually). Approximately 110,000 cubic yards of sediment is dredged from the Port of Duluth-Superior each year. Please complete the portions of the worksheet that are shaded in blue on or before Friday, January 26, 2024. Use one sheet per project/beneficial use alternative. Send your worksheet by email to Kelsey Pihoda (priho011@d.umn.edu).

#### Project and Site Information - Please use one sheet per project

Name of Site:   
 Type of Site:  If "other", identify type of site:   
 Location of Site:   
 Size of Site (specify feet, acres, etc.):   
 Owner:  If "other", identify type of owner:   
 Name of Owner:   
 State:   
 Purpose of project:  If "other", identify purpose:   
 Project Start (year):   
 Project End (year):   
 Primary Material Type:   
 Secondary Material Type:   
 Volume Needed (cubic yards):

### U.S. EPA Dredged Material Decision Tool (DMDT) Criteria Ranking Worksheet

The DMDT allows users to emphasize the relative importance of certain criteria by adjusting the weighting factor of those criteria. In preparation for the January 31, 2024 workshop, we are asking all registered participants to rank their organizational or agency priorities by using a five-point Likert scale to indicate the importance of each of the 50 criteria. Please limit the "Extremely Important (1)" ranking to five criteria and spread the other rankings out among the remaining 45 criteria. This exercise allows us to compare priorities and responsibilities among workshop participants and the organizations they represent. All responses will be treated the same, and no agency's priorities and responsibilities will be over-ruled by another. We will compile the rankings received to determine an average weighting factor for each criteria that equally incorporates the priorities of all workshop participants. Please complete the portions of the worksheet that are shaded in grey on or before Friday, January 26, 2024. Send your completed worksheet by email to Kelsey Pihoda (priho011@d.umn.edu).

Full Name:   
 Affiliation:

Category	Criterion	Priority Ranking <i>Enter a number 1 - 5 according to the Likert Scale at right. Limit the "Extremely Important (1)" ranking to 5 criteria.</i>
	Rivers and streams habitat quantity gain/loss	
	Lakes and ponds habitat quantity gain/loss	
	Near coastal marine/estuarine habitat quantity gain/loss	
	Open water habitat quantity gain/loss	
	Wetlands habitat quantity gain/loss	
	Urban/suburban habitat quantity gain/loss	
	Barren/rock and sand habitat quantity gain/loss	
	Rivers and streams habitat quality improved/harmed	
	Lakes and ponds habitat quality improved/harmed	
Biophysical Environment (20)	Near coastal marine/estuarine habitat quality improved/harmed	
	Open water habitat quality improved/harmed	
	Wetlands habitat quality improved/harmed	
	Urban/suburban habitat quality improved/harmed	

**Five-point Likert Scale:**  
 1 Extremely important  
 2 Very important  
 3 Moderately important  
 4 Slightly important  
 5 Least important

# WORKSHOP

*January 31, 2024 at Duluth Office of Minnesota Pollution Control Agency*

## Expected Outcomes

1. Participants have a working knowledge of U.S. EPA DMDT.
2. Participants can use DMDT to identify priority beneficial use projects from 2025 – 2035 for the Port of Duluth-Superior.
3. Participants are aware of ecosystem services valuation methods that could be used for beneficial use projects.

S



**GREAT LAKES  
TRANSPORT**

# WORKSHOP

January 31, 2024 at Duluth Office of Minnesota Pollution Control Agency

Sea Grant  
MINNESOTA



Image credit: Madison Rodman/MNSG

# WORKSHOP

*January 31, 2024 at Duluth Office of Minnesota Pollution Control Agency*

## Attendees

➤ 26 in-person

Cities of Duluth and Superior, state and tribal natural resource managers, transportation planners, dredging contractors, community groups, environmental advocacy organizations, transportation companies.

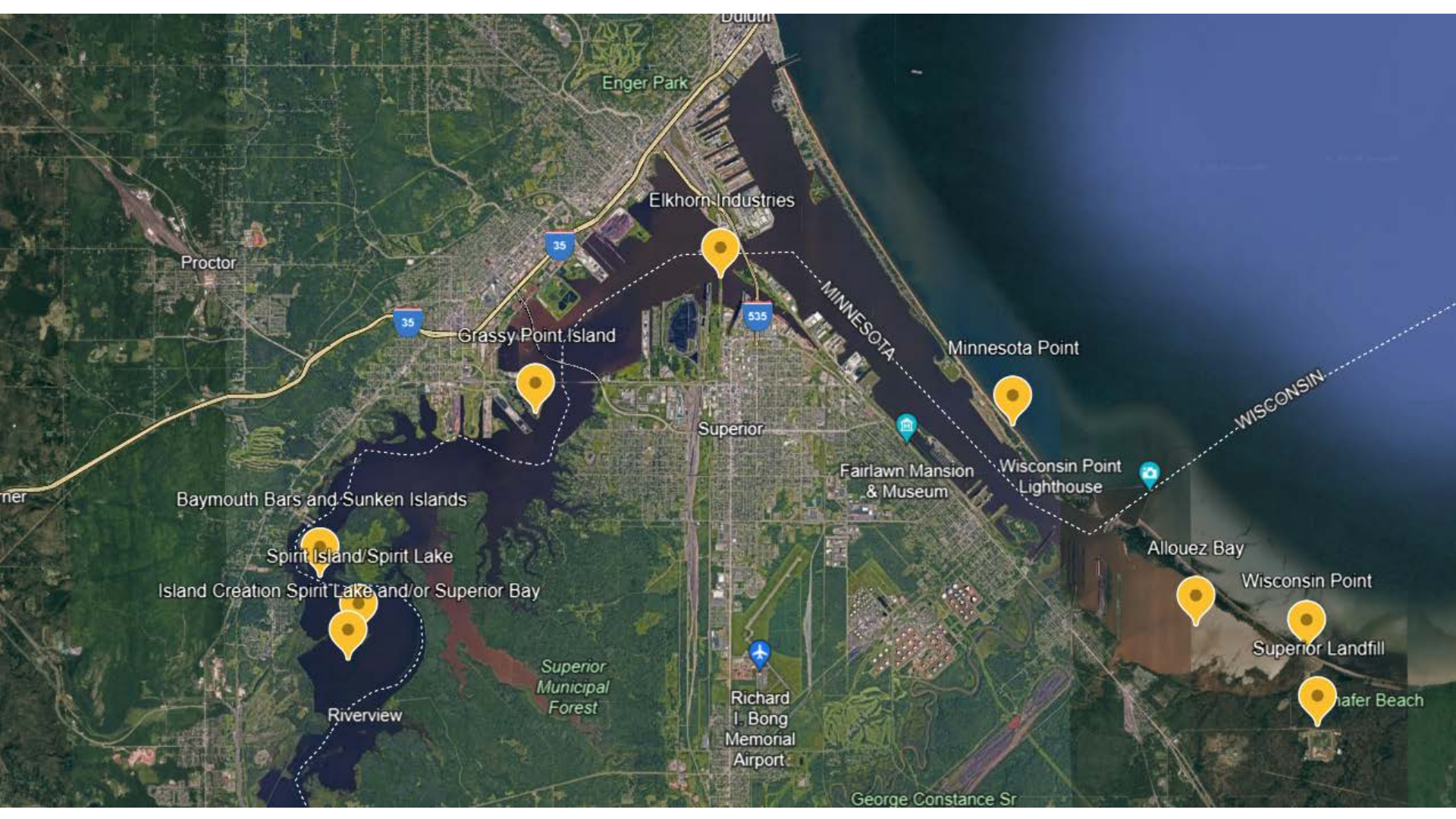
➤ 34 virtual

Registered participants hailed from all over - Port of Duluth-Superior to France.

S



**GREAT LAKES  
TRANSPORT**



Enger Park

Elkhorn Industries

Proctor

35

Grassy Point Island

535

MINNESOTA

Minnesota Point

Superior

WISCONSIN

Fairlawn Mansion & Museum

Wisconsin Point Lighthouse

Baymouth Bars and Sunken Islands

Spirit Island/Spirit Lake

Island Creation Spirit Lake and/or Superior Bay

Allouez Bay

Wisconsin Point

Superior Landfill

Superior Municipal Forest

Riverview

Richard I. Bong Memorial Airport

Hafer Beach

George Constance Sr

# WORKSHOP OUTPUTS TO DATE



## DMDT Results – First Iteration

Worksheet Page	Project Name	Total Score	Environment	Economy	Social	Governance	Built Environment
1	Superior Landfill	64.9	26.6	11.0	7.5	12.1	7.7
2	Elkhorn Industries (Port Site)	47.4	15.6	11.6	4.9	10.6	4.6
3	Grassy Point Island	76.5	42.9	14.7	5.2	10.2	3.5
4x	Alouez Bay	74.7	34.3	14.7	7.3	14.6	4.0
<p>These projects did not receive a total score because data do not exist for all five categories.</p>							
9x	Island Creation, Spirit Lake / Superior Bay	94.2	55.7	14.7	7.2	14.6	4.0

## Ecosystem Services Valuation

Several methods that could be used

No examples in current literature of ecosystem services valuation for beneficial use projects

Need additional resources to apply these methods to one or more of the above projects



# NEXT STEPS

## Project Development

- More information is key to successful use of DMDT
- Use DMDT to identify project information gaps for future beneficial use projects

## Build on the Existing Foundation

- Complete scoring individually for projects taking place in the next five years

# THANK YOU!

Minnesota Sea Grant prepared this workshop using Federal funds under award NA21NOS4190083 from the Coastal Zone Management Act of 1972, as amended, administered by the Office for Coastal Management, National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce provided to the Minnesota Department of Natural Resources (DNR) for Minnesota's Lake Superior Coastal Program.