

# NNBF Statewide Symposium Niagara River AOC Coastal Wetland Restoration Projects

**David Spiering** – Assistant District Manger for  
Environmental Stewardship, Niagara Region  
([David.Spiering@parks.ny.gov](mailto:David.Spiering@parks.ny.gov))



April 30, 2024, Woodlawn Beach State Park

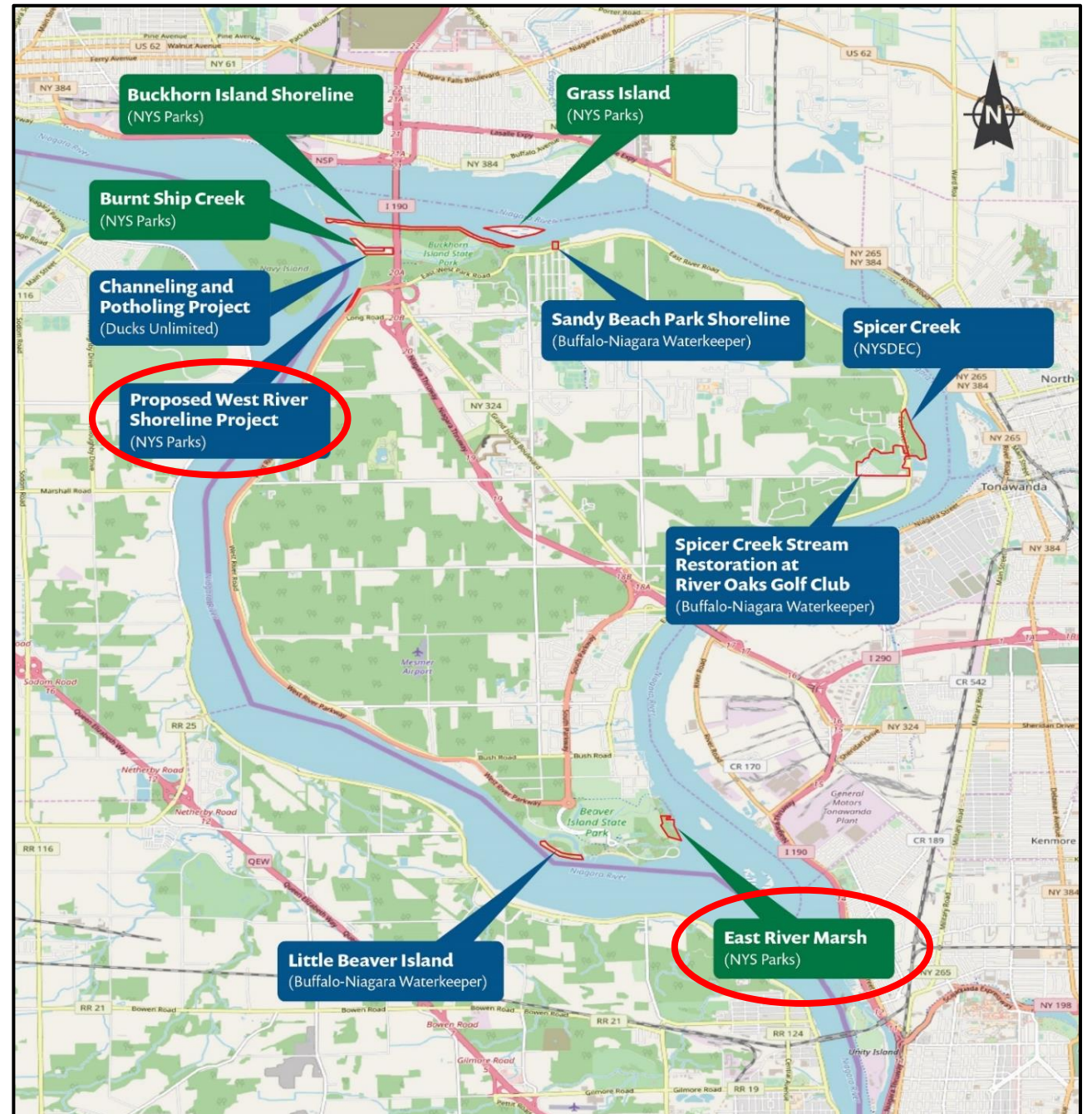


**New York State  
Parks, Recreation and  
Historic Preservation**

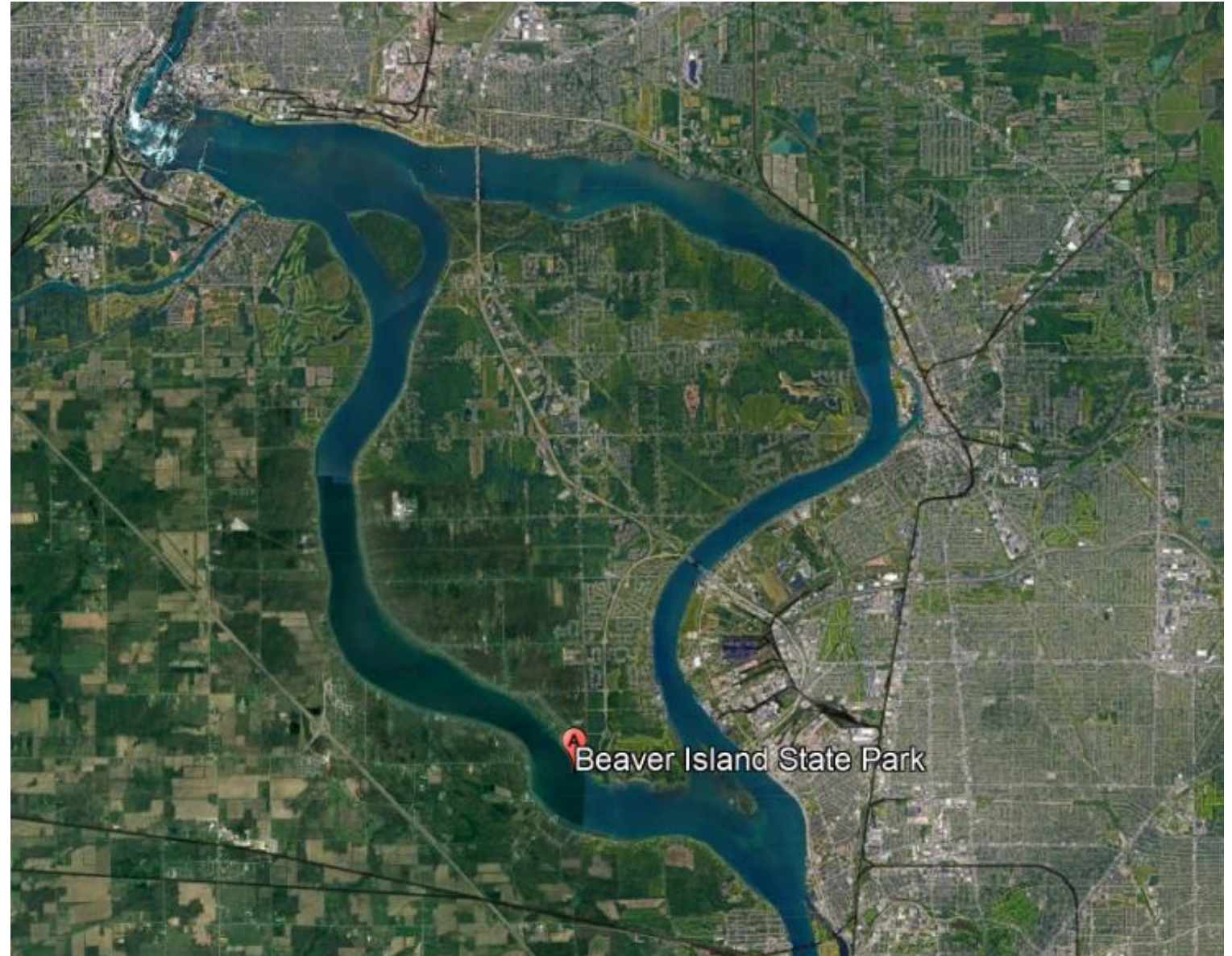
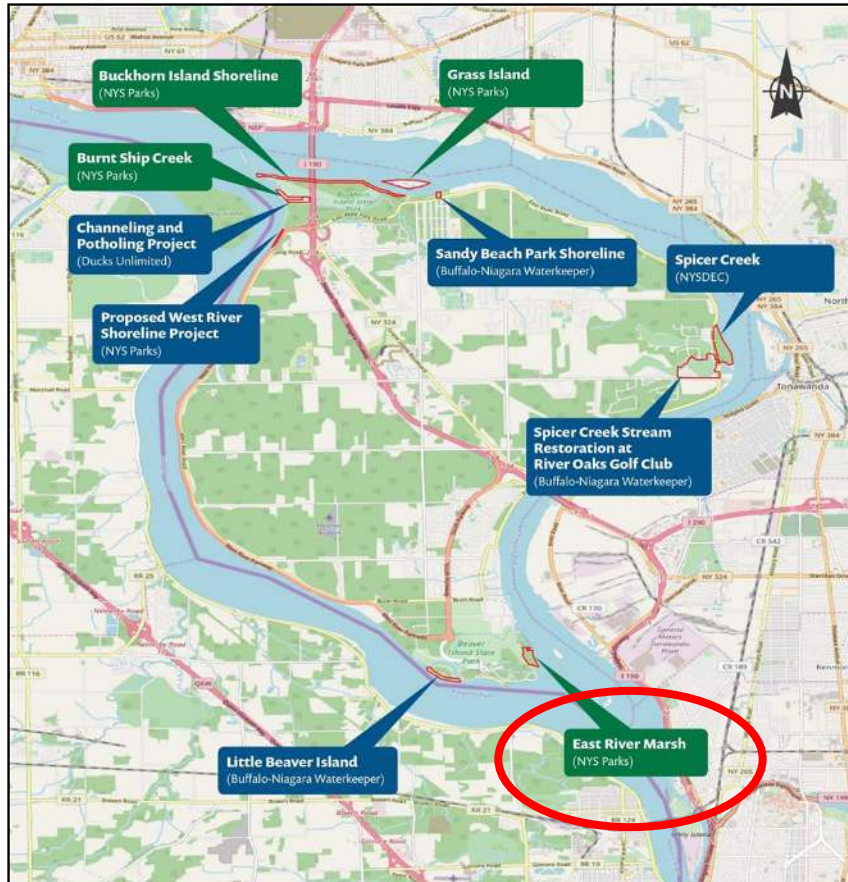


# Niagara River Habitat Restoration Projects

- Projects are part of a larger restoration plan for the Niagara River AOC
- Multiple agencies and organizations are sponsoring complementary projects
- This presentation provides information on two projects sponsored by NYS Parks



# East River Marsh – Beaver Island State Park





2003 Project

# East River Marsh – Beaver Island State Park



Reefs Installed 2019



Reefs Installed 2003

# East River Marsh – Beaver Island State Park







**Woody Structure**



# Native Plantings



Planting Bags  
July 2019

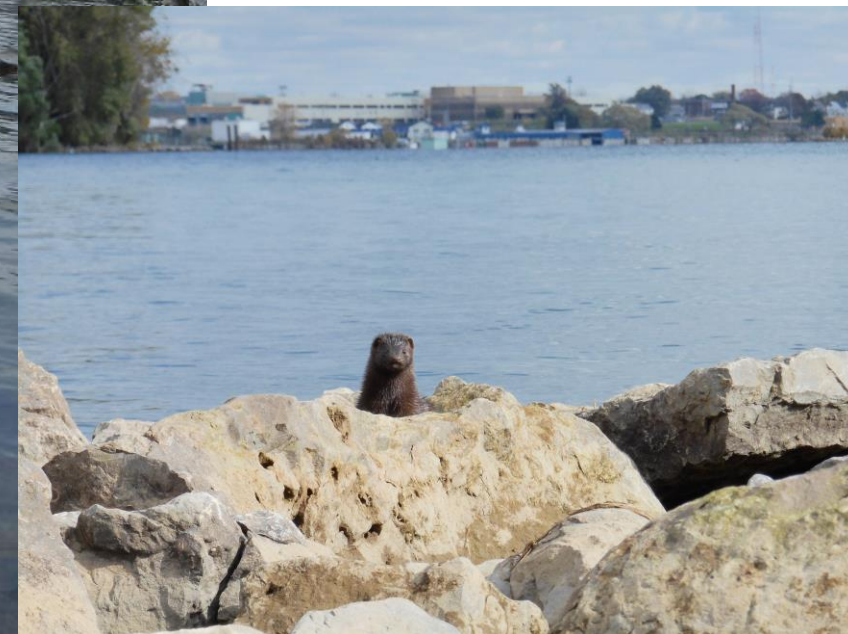


Aug.  
2022

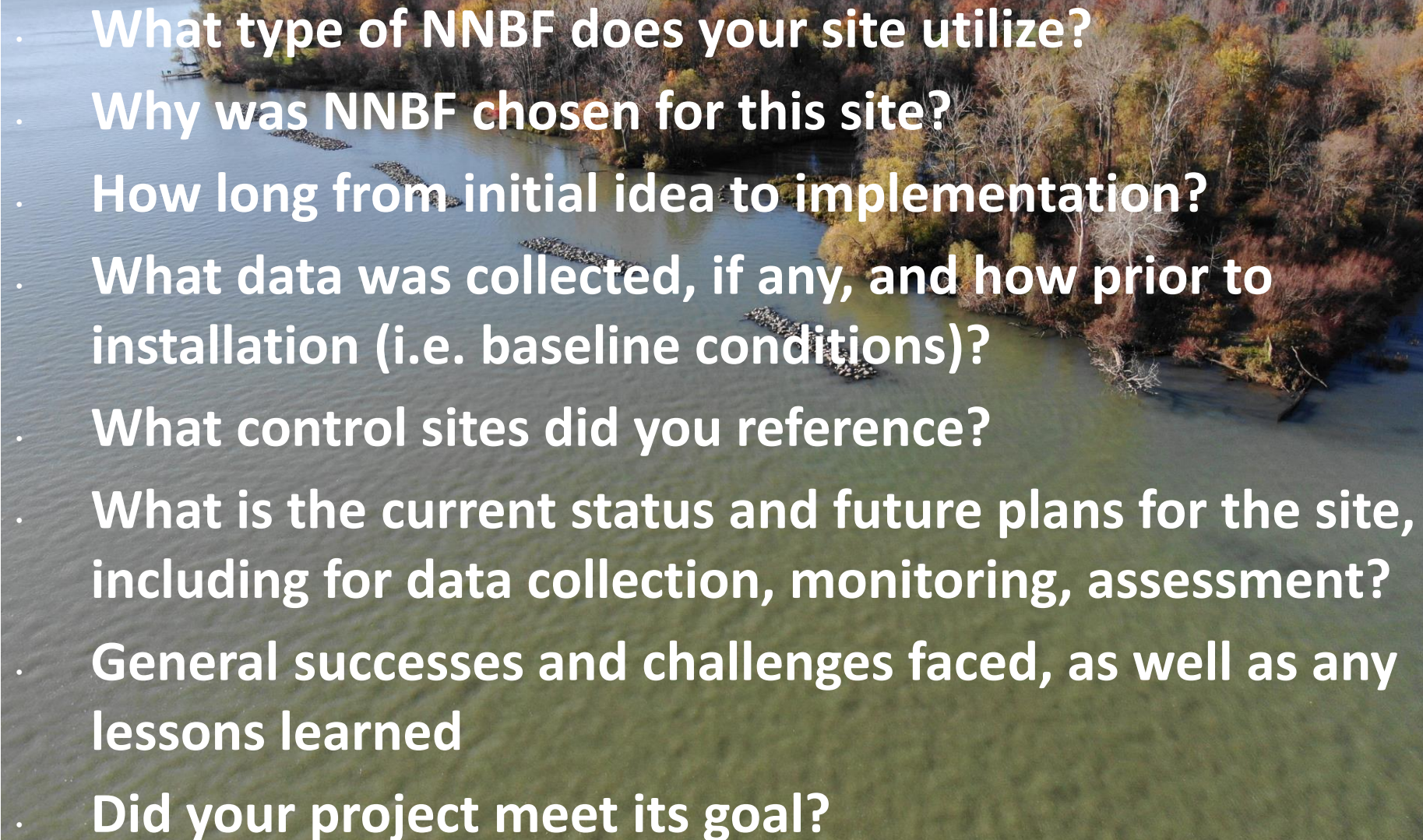
# Rock Reef Plantings



Photo courtesy of Paul Leuchner





- 
- An aerial photograph of a large body of water, likely a lake or reservoir, with a prominent island in the center. The island is covered in dense trees with vibrant autumn foliage in shades of orange, yellow, and brown. Several rocky outcrops or small islands are visible in the water around the main island. The sky is clear and blue, and the overall scene is bright and scenic.
- **What type of NNBF does your site utilize?**
  - **Why was NNBF chosen for this site?**
  - **How long from initial idea to implementation?**
  - **What data was collected, if any, and how prior to installation (i.e. baseline conditions)?**
  - **What control sites did you reference?**
  - **What is the current status and future plans for the site, including for data collection, monitoring, assessment?**
  - **General successes and challenges faced, as well as any lessons learned**
  - **Did your project meet its goal?**



- KEY:**
- Proposed Project Area (4.8 ac)
  - Angled Rock Reefs
  - Rock Sill
  - Single Cabled Log
  - 3-sided Log Planters
  - Un-Mowed Meadow Area
  - Park Bench

Figure 1  
Plan View  
West River Shoreline North Habitat  
Enhancement Project, Grand Island  
Erie County, New York



# West River Shoreline Design – Spring 2021 Construction – 2022




**June 2021**







# Design and Planning

KEY:

 Proposed Project Area (4.8 ac)

 Single Cabled Log


 3-sided Log Planters



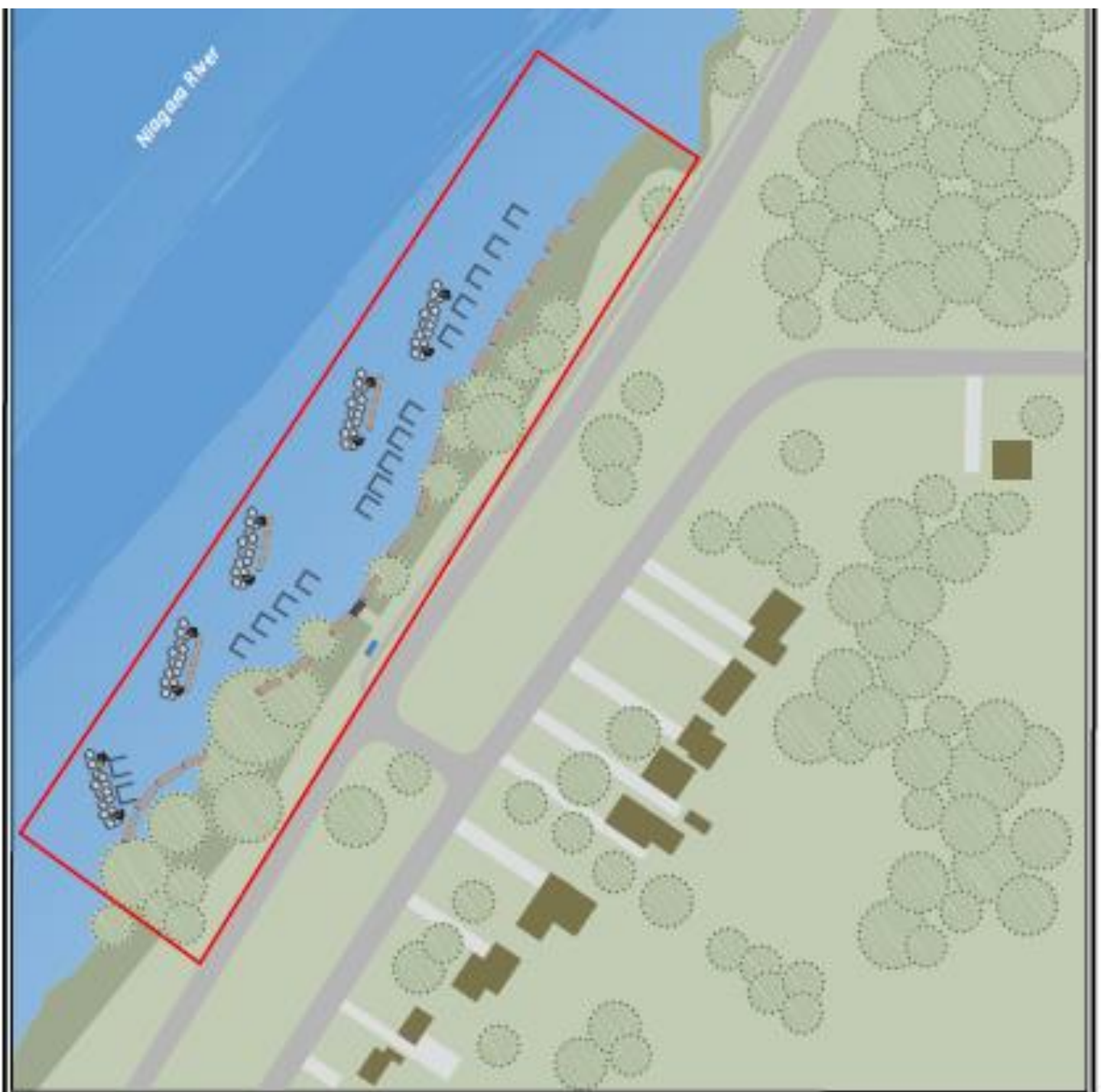
Angled Rock Reefs



Un-Mowed Meadow Area

 Rock Sill

 Park Bench

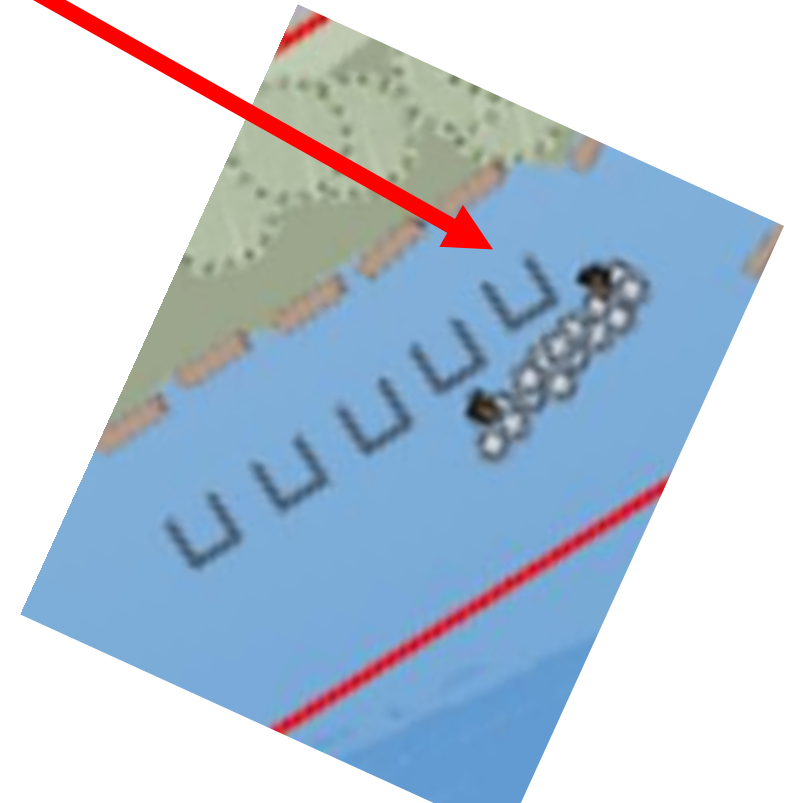


## Riparian Area:

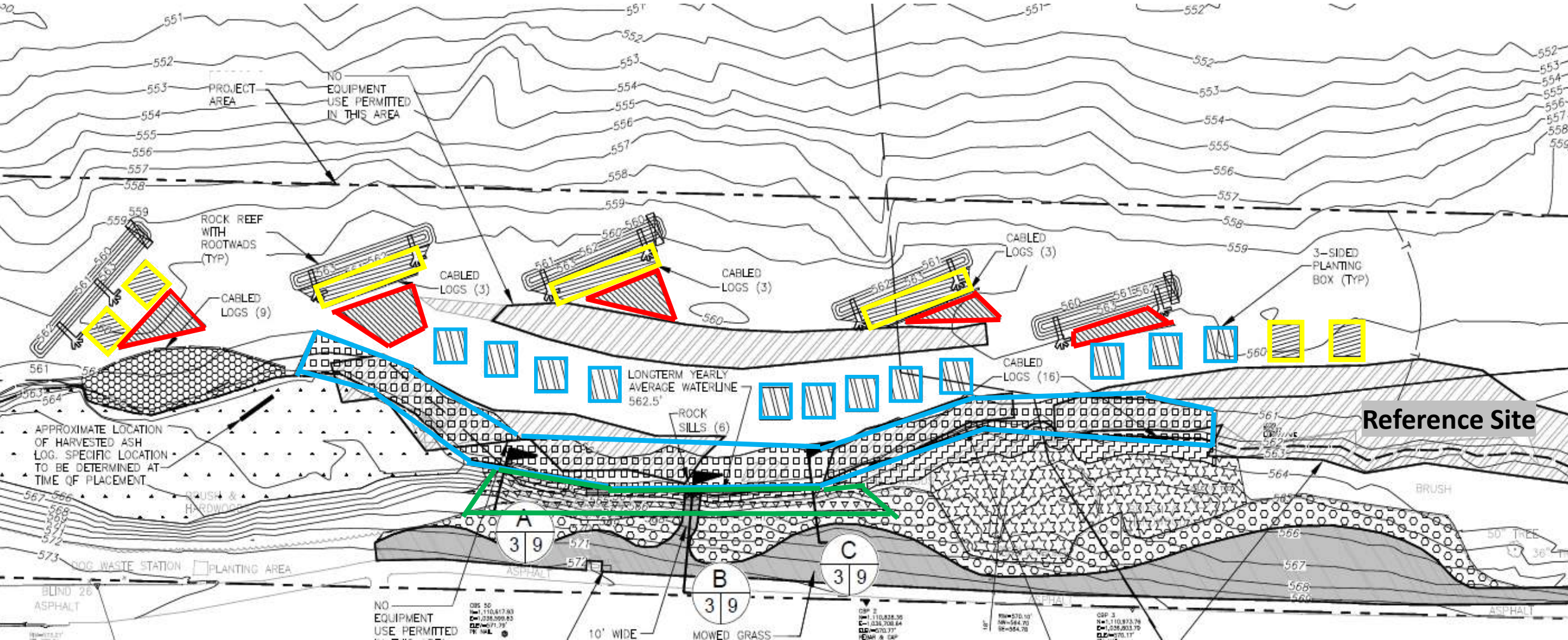
- Shoreline Grading
- Toe Protection
- Native Plantings



# Offshore



# Native Plantings



Deep Emergent

Submerged Aquatic

Shallow Emergent

Riparian



**Sept.  
2022**





**Lake Erie waters wash over the shoreline on December 23, 2022 in Hamburg, New York. The Buffalo suburb and surrounding area are expecting wind gusts over 70 miles per hour battering homes and businesses through out the holiday weekend.**

*John Normile | Getty Images News | Getty Images*





**What is the current status and future plans for the site, including for data collection, monitoring, assessment?**

**Looking at options for repairs, limited \$**  
**Looking for feasible monitoring options**

**General successes and challenges faced, as well as any lessons learned**

**Complete projects with spring planting**

**Did your project meet its goal?**

**Need monitoring data**

**Short & Long-term goals**





Photo courtesy of Paul Leuchner

# Thank you

Dave Spiering

Assistant District Manager for  
Environmental Stewardship,

Niagara Region

[david.spiering@parks.ny.gov](mailto:david.spiering@parks.ny.gov)



**New York State  
Parks, Recreation and  
Historic Preservation**