

Fox River/Green Bay Natural Resource Damage Assessment & Restoration

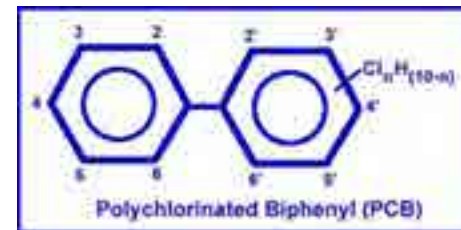
Green Bay Field Office
Betsy M. Galbraith, Deputy Field Supervisor
Minnesota-Wisconsin Ecological Services



Degradation of the Lower Fox River & Green Bay Ecosystem



- “Hardest working river in the country”
- Designated Area of Concern (AOC); 11 BUIs
- Impaired by excessive nutrient and phosphorous loading
- PCBs



Restore



Replace

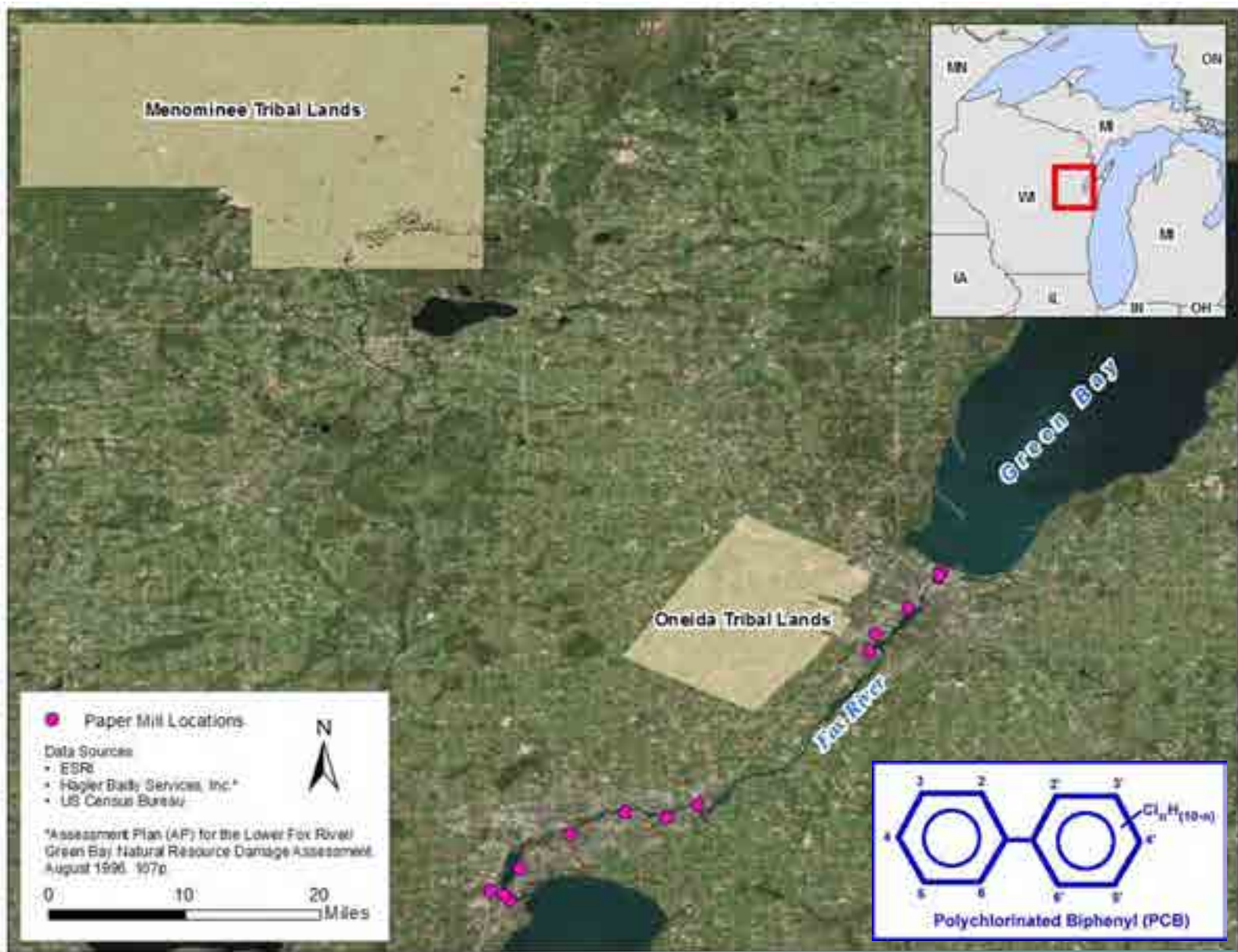


Acquire





What is the Fox River/Green Bay NRDAR?



Restore



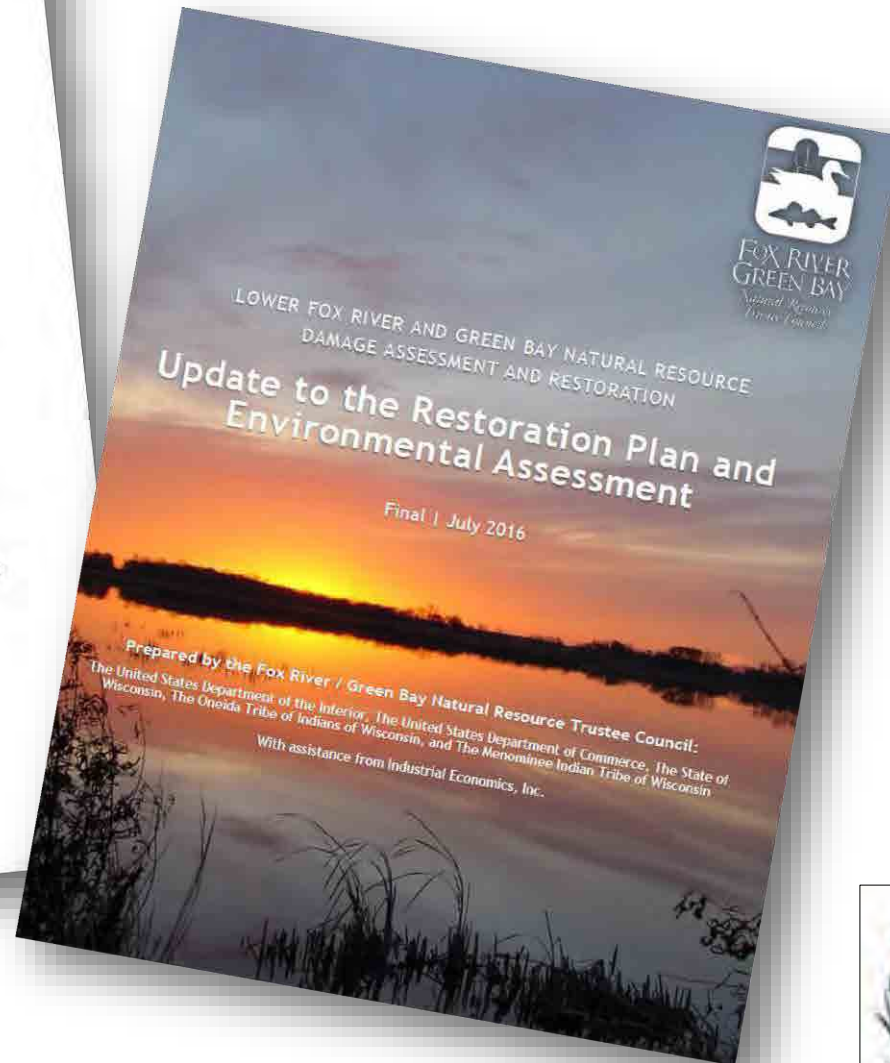
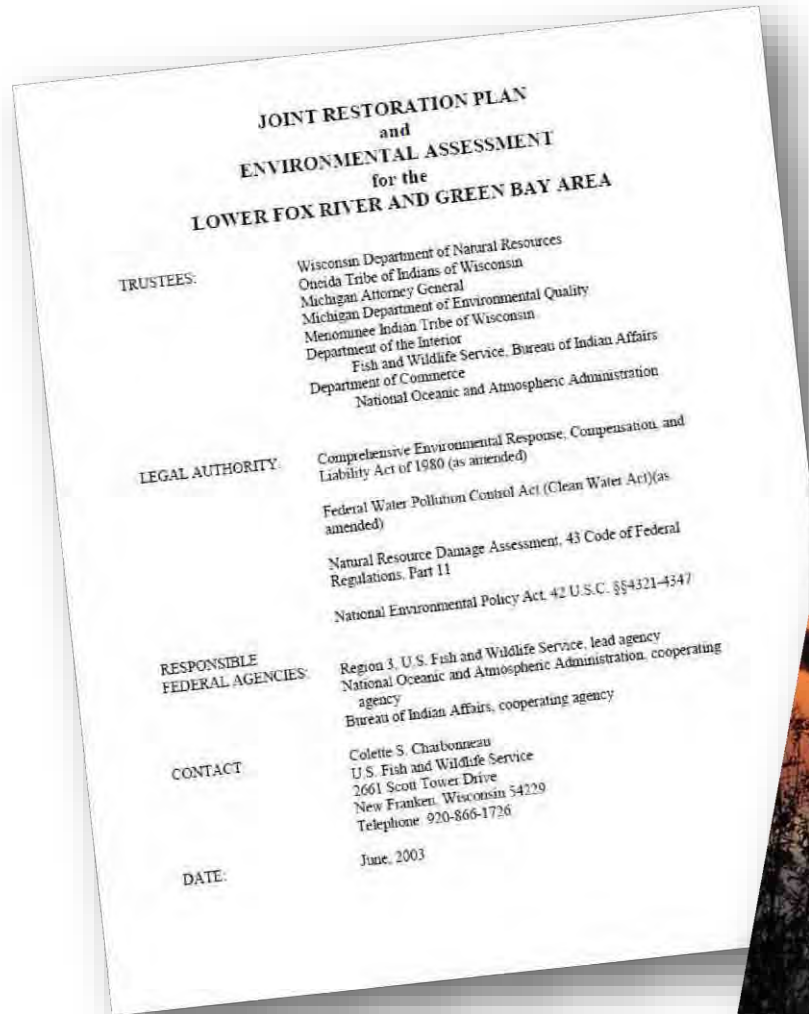
Replace



Acquire



Restoration Plans – 2003 & 2016



Restore



Replace



Acquire





Lower Fox River/Green Bay NRDA Trustee Council



A good mind. A good heart. A strong fire.

Trustees

Tehassi Hill
Tribal Chairman
Oneida Nation

Lori Nordstrom
ARD – Ecological
Services
Region 3, US FWS

James Zellmer
Env. Division
Administrator
WI DNR

Tribal Designee
Menominee Tribe

Jim Snitgen
Water Resources
Supervisor
Oneida Nation

Trina Soyk
TC Coordinator
Betsy Galbraith
US FWS

Dave Boyarski
Josh Martinez
WI DNR

Jeremy Pyatskowitz
Environmental
Services Dept
Menominee Tribe

Technical Team

Since 2002, over 220 projects initiated!

Over 22,800 acres preserved or restored

+ fisheries, recreational & cultural benefits

Over \$52 million in NRDA settlement funds spent

Over \$60 million in partnership funds leveraged

(As of Dec 31, 2021)

Restore




Replace



Acquire





Aquatic, Nearshore, and Riparian Habitat Improvement Fishery Resource Enhancements Public Use Enhancements

Sensiba State Wildlife Area. Trina Soyk.



Photo credit: Ben Young, June 2020





Resources – FoxRiverNrda.org



The Fox River Natural Resource Trustee Council

The Fox River Trustees support the long-term recovery, protection, and enhancement of the natural resources of the Lower Fox River and Green Bay system. Starting in the mid-1950s, paper companies and other handlers released PCBs into the Lower Fox River and Green Bay. These releases resulted in injuries to fish, wildlife, surface water, and sediments. Through a process known as Natural Resource Damage Assessment (NRDA), the Trustees assessed these injuries and entered into settlement agreements with the parties responsible for the PCB releases. Since 2002, the Trustees have recovered \$90 million dedicated to the implementation of restoration projects that compensate for PCB-related injuries to natural resources. These funds have been allocated for over 140 restoration projects thus far.

Restore



Replace

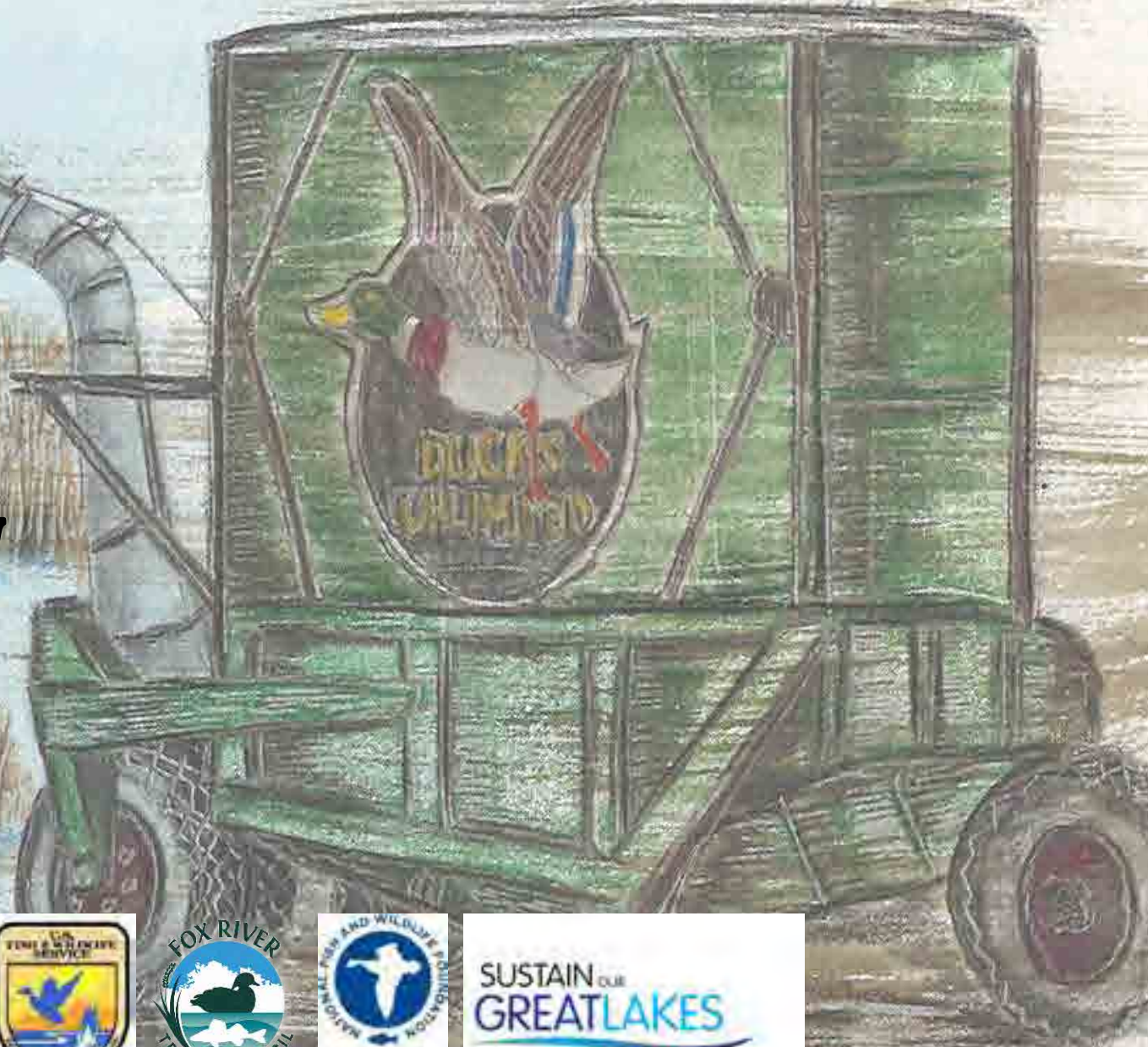


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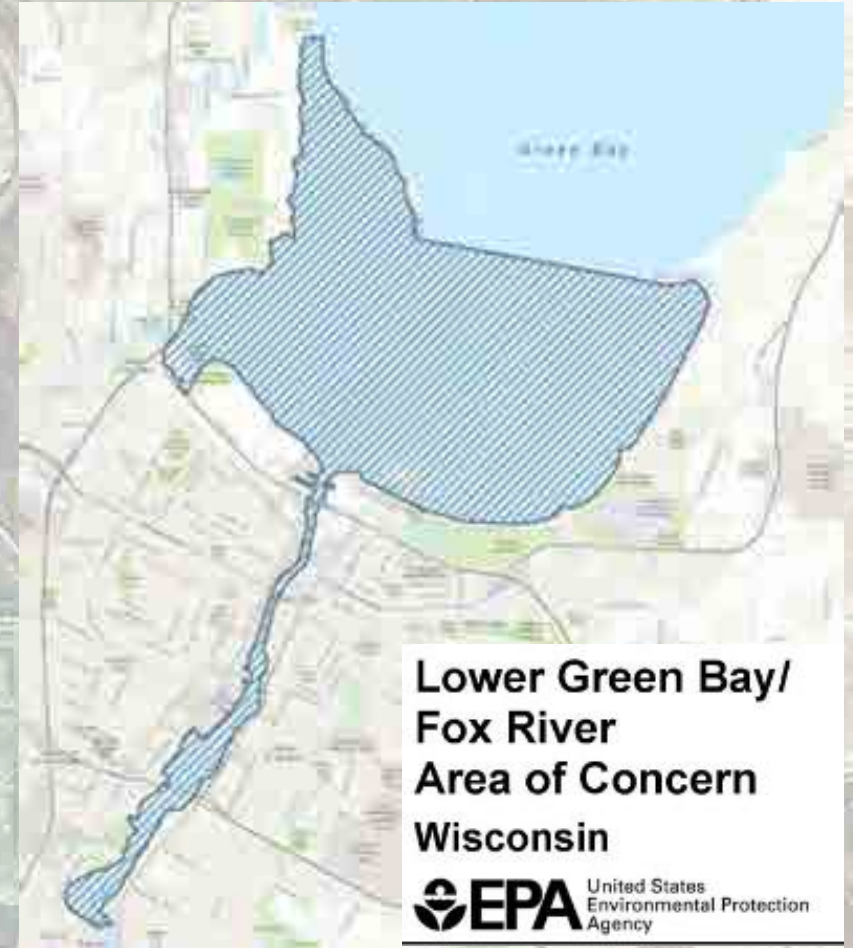
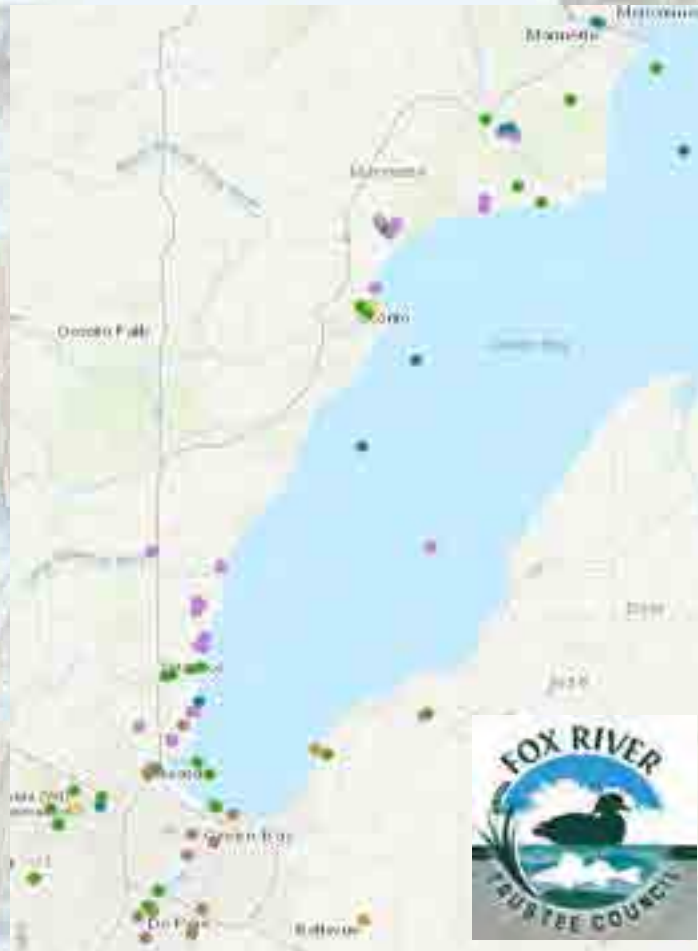


MAFWA-Green Bay

6/26/23



Green Bay Coastal Wetlands and Program Synergy



Green Bay West Shore Priority Coastal Marshes

Site Selection

Great Lakes Coastal Wetland Monitoring Sites

- Point au Sable (1441)
- Atkinson Marsh (1444)
- Peats Lake (1446)
- Long Tail Point (1456)
- Dead Horse Bay (1458)
- Suamico River Wetland (1697)
- Oconto Marsh (1468)
- Peshtigo River (1469)
- Seagull Bar (1703)



Infrastructure



Vegetation Management: Invasive Species

Green Bay Phragmites management

WDNR - GLRI Phase I:
2011-2012

- 3,000+ acres
- Nearly all aerial herbicide



DU - GLFWRA Phase II:
2014-2016

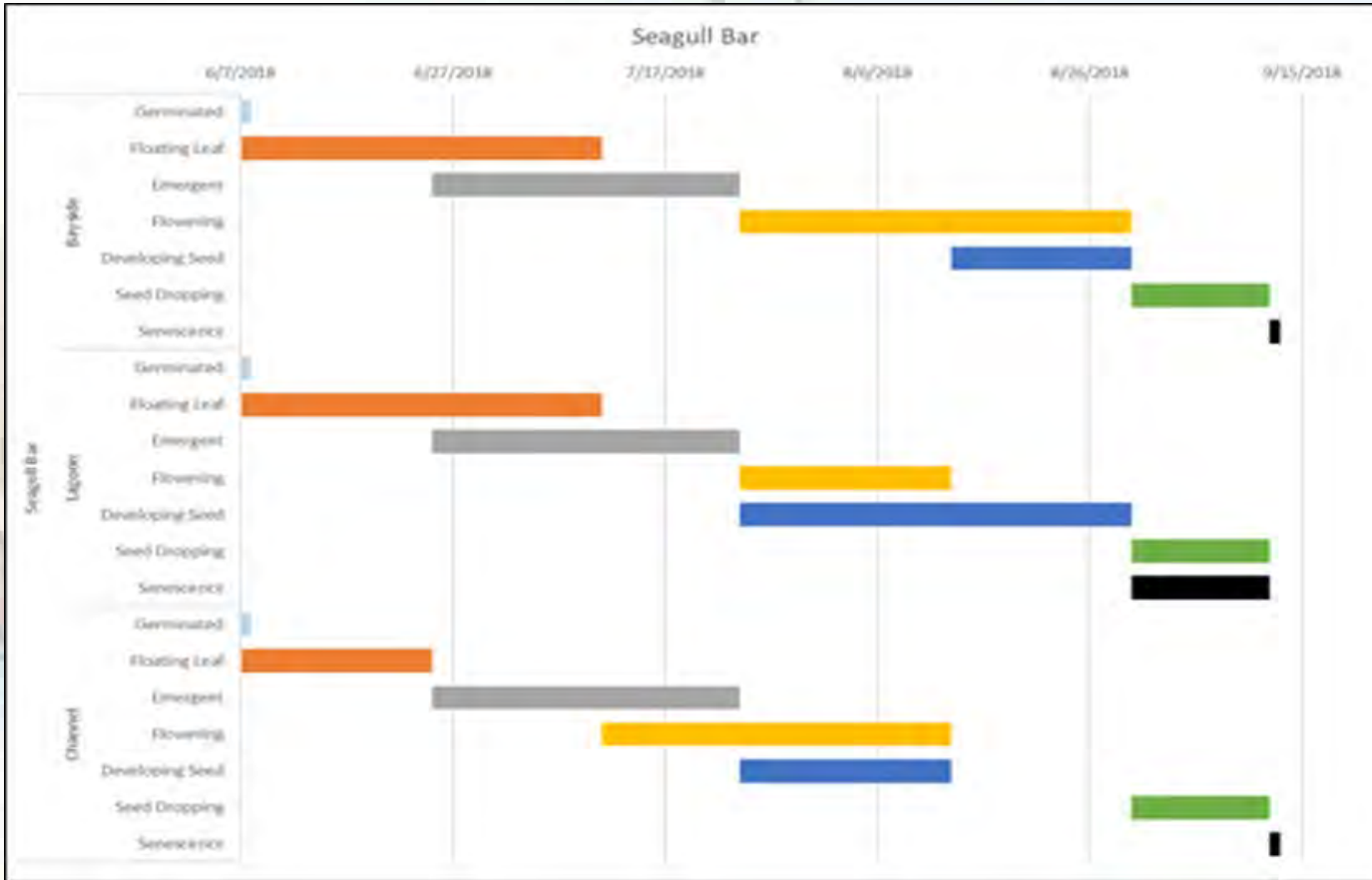
- 1,300 acres retreated
- Mostly ground herbicide

Phase III: 2020- present

- Priority Coastal Marshes
- < 300 acres
- Mixed techniques including cutting and removal

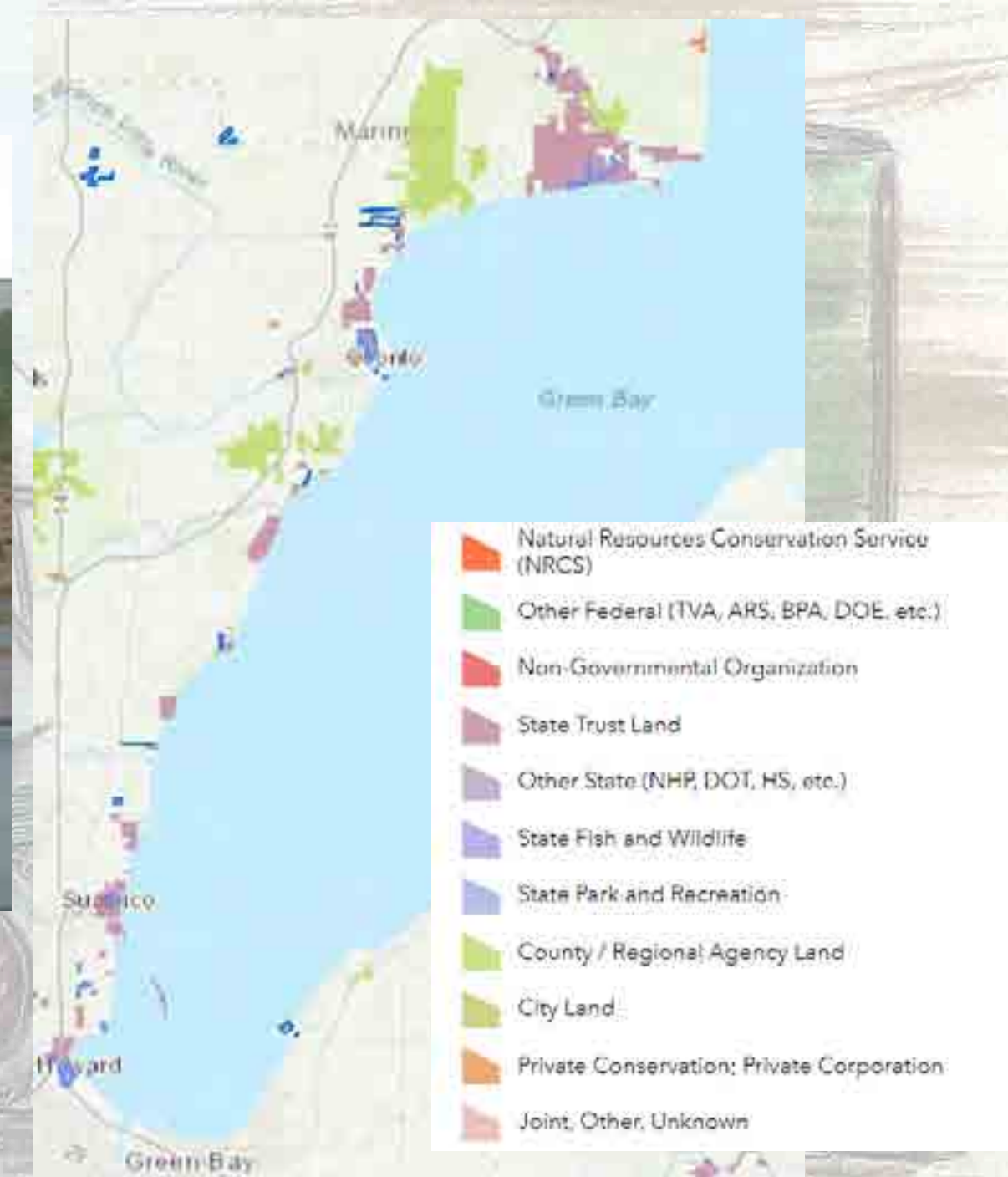


Vegetation Management (cont): Wild Rice



Land Protection

Village of Howard purchases 113 acres of wetlands





Establishing a Bay of Green Bay National Estuarine Research Reserve (NERR)



Emily Tyner
Director of Freshwater Strategy
University of Wisconsin-Green Bay



What is a National Estuarine Research Reserve (NERR)?

- Non-regulatory state-federal partnership focused on research and education around waters, estuaries, and coastlines.
 - Locally relevant, nationally significant



What is the National Estuarine Research Reserve (NERR) System?

**A NETWORK OF 30
PROTECTED PLACES**



Alaska



Hawaii



Puerto Rico



U.S. Virgin
Islands

- designated reserve
- proposed reserve
- designation in process

WHAT DOES A NERR DO?

1. Address coastal management issues
2. Enhance public awareness and understanding of estuaries and coasts
3. Platform for coordinating research, education, stewardship
4. Celebrate holistic water connections to our communities and ecosystems



Research



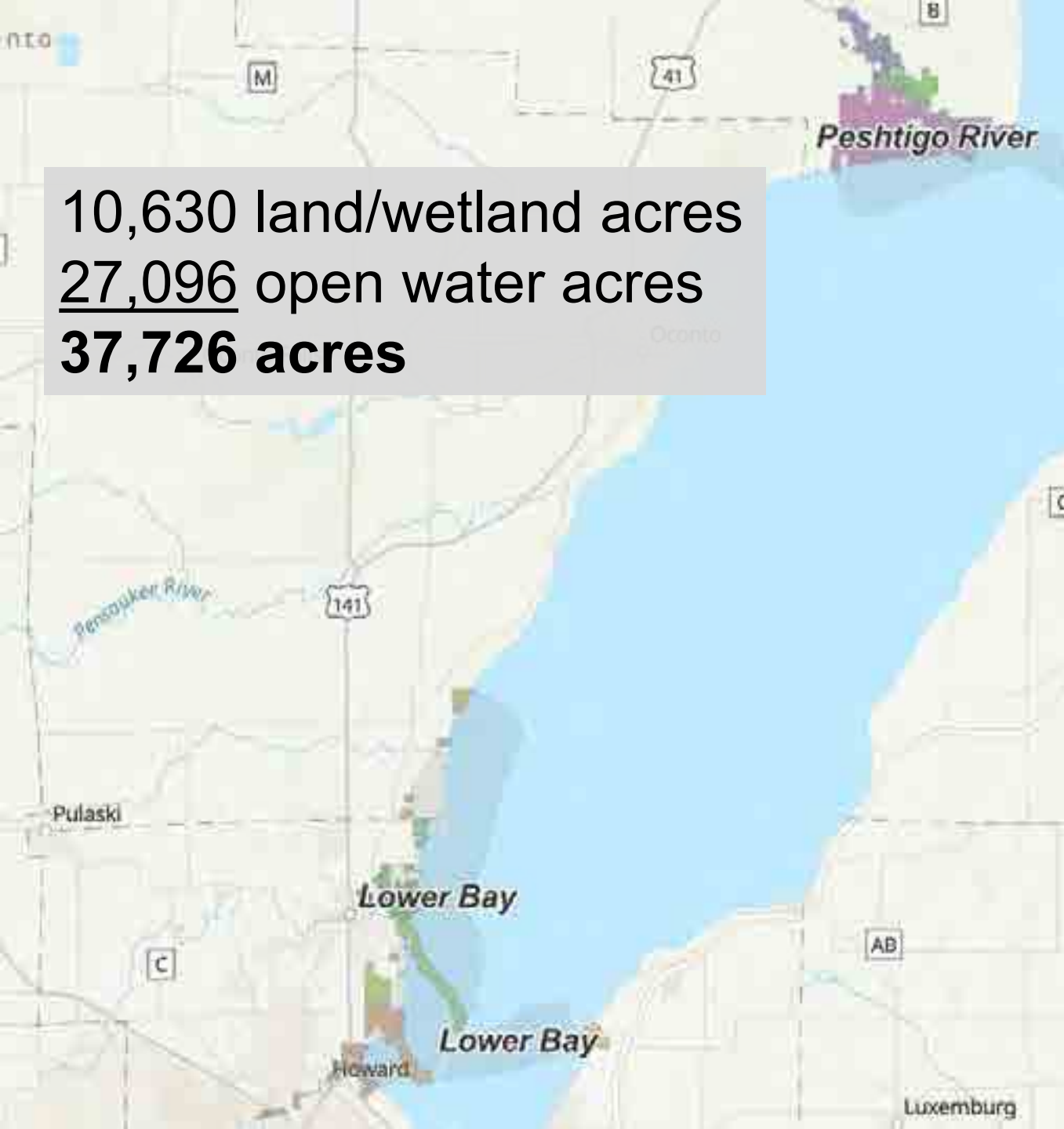
Education



Stewardship



Training



10,630 land/wetland acres
27,096 open water acres
37,726 acres

Land-holding partner	Acres
WI DNR	8,800 (81% of lands)
Brown County	1,430 (12%)
Door County Land Trust	425 (4%)
University of Wisconsin System	191 (2%)
City of Green Bay	129 (1%)
Crossroads at Big Creek	108 (1%)
Northeast Wisconsin Land Trust	107 (1%)
Sturgeon Bay School District, Village of Howard, Suamico, Scott	≤90 acres each



The Bay of Green Bay Estuary is a large, dynamic, and complex system

Site selection of natural areas must capture two important gradients:

1. The disturbance gradient from minimally impacted habitats to areas recently restored
2. The south-to-north gradient capturing the nutrient-rich waters of the Fox-Wolf watershed in the south meeting the nutrient-poor waters entering the bay from Lake Michigan

Partnerships not restricted by designation boundaries



Draft Environmental Impact Statement and Draft Management Plan

- EIS (Environmental Impact Statement)
 - NOAA takes the lead in development



- Management Plan
 - UW-Green Bay takes lead in development
 - Acts a guide and foundation for the Green Bay NERR
 - **Needs public input**
 - Tribal considerations, state and federal agencies, community groups

Opportunities with Designation: System-Wide and National Programs

Research

- System-Wide Monitoring Program
- National Estuarine Research Reserve Science Collaborative
- Margaret A. Davidson Fellowship

Training

- Coastal Training Program

Education

- Teachers on the Estuary
- K through 12 Estuarine Education

Stewardship

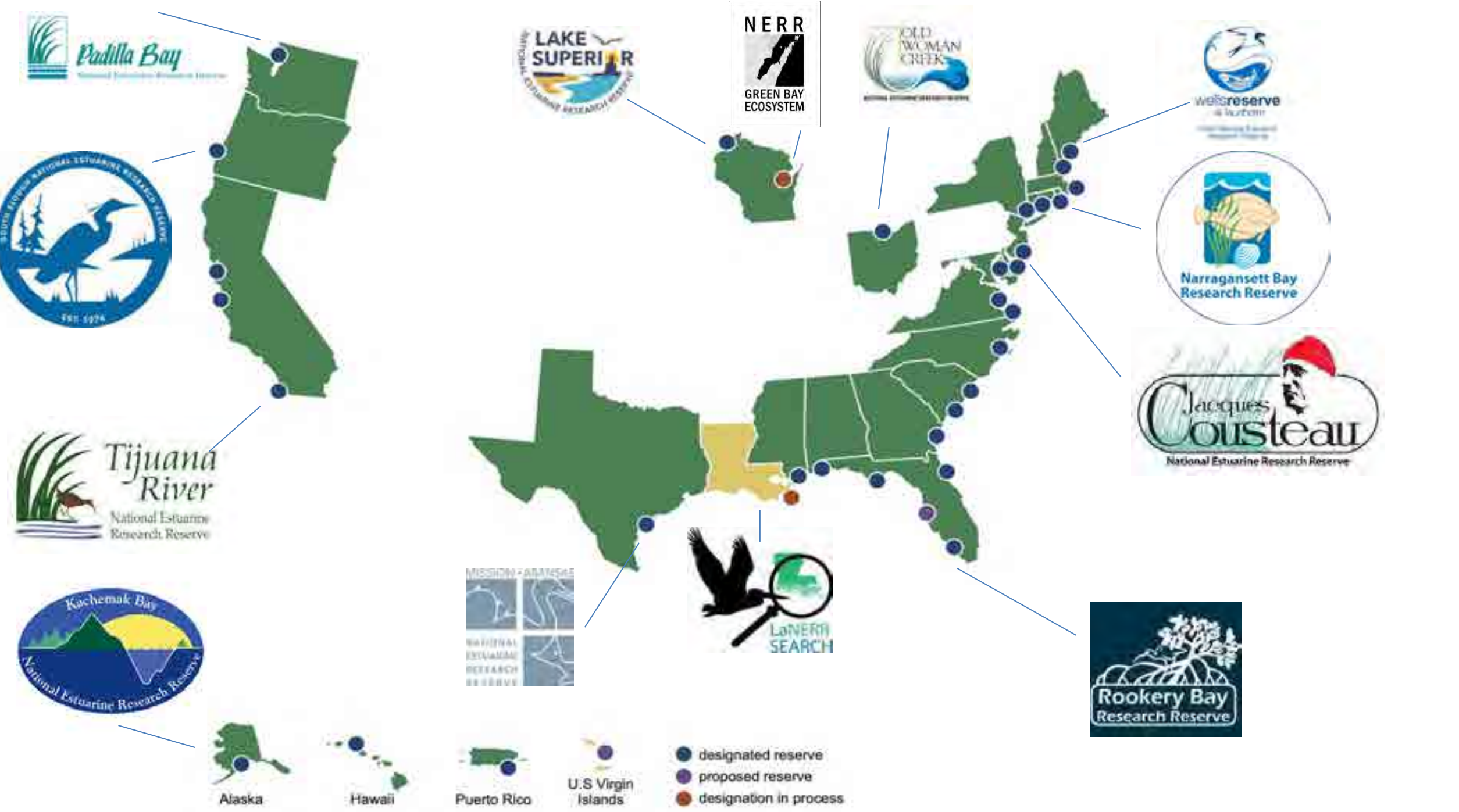


LAKE SUPERIOR 
Estuarium





- designated reserve
- proposed reserve
- designation in process



Bay of Green Bay NERR Designation Timeline

2022	2023	2024	Spring 2025	
Select NERR Sites - Natural Areas	Select NERR - Education and Visitor Center location		Finding and Record of Decision	Designation
	Write NERR Management Plan			
	Prepare Environmental Impact Statement (with NOAA)	Develop NOAA-State MOUs		

Green Bay National Estuarine Research Reserve

W f t

NERR in the News

Program Updates & Info

Site S

Get In

FAQs

Fact Sheets & Videos

What is a National Estuarine Research Reserve?

The National Estuarine Research Reserve System (NERR) is a national network of 30 sites across the coastal US, including the Great Lakes, designed to protect and study estuaries and their coastal wetlands. The mission of the NERR System is, "To practice and promote stewardship of coasts and estuaries through innovative research, education, and training using a place-based system of protected areas." Established through the Coastal Zone

Management Act, the reserves represent a partnership program between NOAA and the coastal states. NOAA provides funding and national guidance, managed on a daily basis by a lead state agency or university with input from local partners. For the Green Bay NERR, the University of Wisconsin-Green Bay is leading the designation process for this ecosystem, with a program

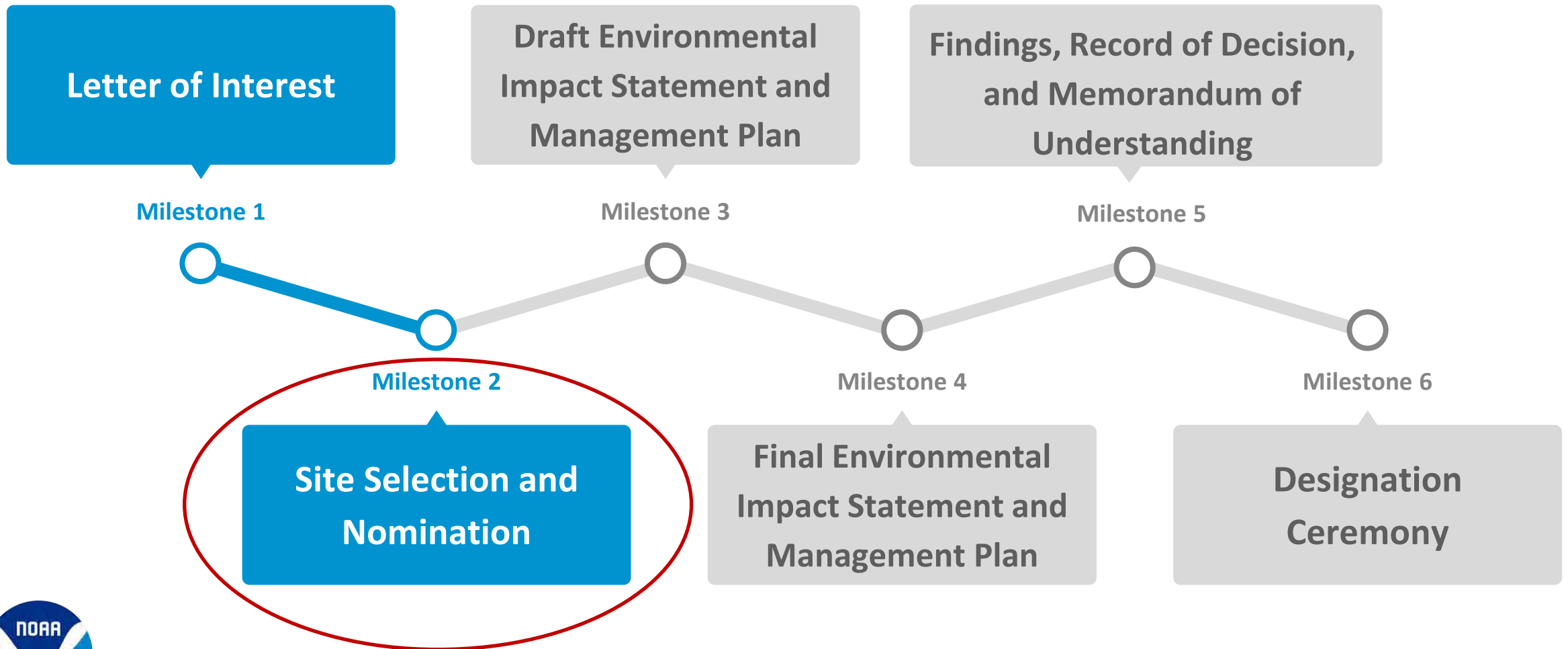
Thank you for joining us at the Site Selection Public Meeting. The presentation slides shared at the meetings are available on the website when formally nominating a site or sites to NOAA.

'Get Involved'

uwgb.edu/nerr

Emily Tyner tynere@uwgb.edu

Designation Process and Milestones



Management Plan Public Input

- The Strategic Plan
 - Vision and mission
 - What are the areas challenges or issues?
 - What are the best part of the area?
- Reserve System Program Foundations
 - Research
 - Education
 - Training
 - Stewardship

