Welcome to the Bay of Green Bay National Estuarine Research Reserve (NERR) Site-Selection Public Meeting

Thursday, September 8, 2022

OBJECTIVES

- Share the preliminary recommended sites for the *natural areas* of the Bay of Green Bay NERR
- Receive public feedback about the preliminary recommended sites

AGENDA

- Welcome and Introductions
- Background on the Bay of Green Bay NERR designation
- Reserve System 101
- Overview of the Site Selection and Nomination Process
- Next Steps in the Designation Process
- Comments and Questions

Regional enthusiasm

- 106 presentations with 1665 community members
- 9 resolutions of support

Ben Young, NEW Water

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GREEN BAY
NATIONAL ESTUARINE
RESEARCH RESERVE

NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM

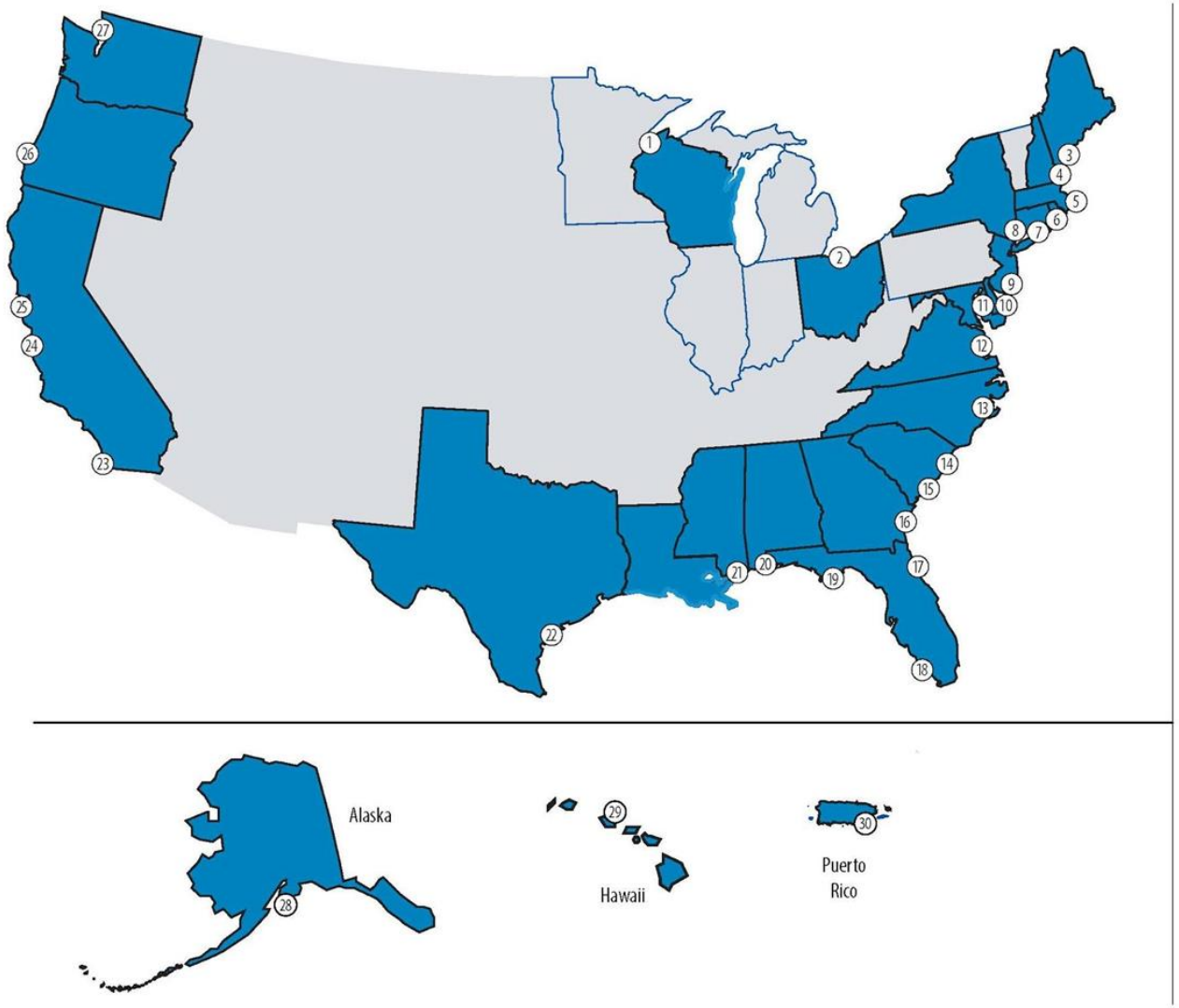
Applying Science and Education to Improve the Management of Estuaries

Erica Seiden

September 2022

A Network of 30 Protected Places

NATIONAL ESTUARINE RESEARCH RESERVES



Great Lakes
1. Lake Superior, Wisconsin
2. Old Woman Creek, Ohio

Northeast
3. Wells, Maine
4. Great Bay, New Hampshire
5. Waquoit Bay, Massachusetts
6. Narragansett Bay, Rhode Island
7. Connecticut

Mid-Atlantic
8. Hudson River, New York
9. Jacques Cousteau, New Jersey
10. Delaware
11. Chesapeake Bay, Maryland
12. Chesapeake Bay, Virginia

Southeast
13. North Carolina
14. North Inlet-Winyah Bay, South Carolina
15. ACE Basin, South Carolina
16. Sapelo Island, Georgia
17. Guana Tolomato Matanzas, Florida

Gulf of Mexico
18. Rookery Bay, Florida
19. Apalachicola, Florida
20. Weeks Bay, Alabama
21. Grand Bay, Mississippi
22. Mission-Aransas, Texas

West
23. Tijuana River, California
24. Elkhorn Slough, California
25. San Francisco Bay, California
26. South Slough, Oregon
27. Padilla Bay, Washington
28. Kachemak Bay, Alaska

Pacific
29. He'eia, Hawai'i

Caribbean
30. Jobos Bay, Puerto Rico

PROPOSED
Bay of Green Bay, Wisconsin
Louisiana

Over 1.4 Million Acres Protected

Vision: Resilient estuaries and coastal watersheds where human and natural communities thrive.

Mission: To practice and promote stewardship of coasts and estuaries through innovative research, education, and training using a place-based system of protected areas.

Locally Relevant, Nationally Significant

People

Science

Protected Places

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

A Partnership Program

State role

- Land ownership and management
- Reserve staff members
- Program implementation
- Funding (30 percent match)

Federal role

- National policy and program guidance
- Technical assistance
- Program coordination
- Funding (70 percent)

Frequently Asked Questions

1. After designation, who owns and manages the reserve?
2. Does the designation of a reserve result in new federal regulations?
3. Does the designation of a reserve affect existing uses?

Thank you!

Erica.Seiden@noaa.gov

Site Coordination Committee

- Provide leadership and oversight to state designation
- Build statewide regional support for the Bay of Green Bay NERR
- Complete Site Nomination Document for submission to Governor's Office

Site Development Committee

- Draft Site-Selection Criteria
- Determine Relevant Coastal Geography
- Pre-screening to determine 3-5 optimal natural area candidate sites

Site Evaluation Committee

- Apply Site-Selection Criteria to natural area candidate sites
- Recommend a site/assemblage of natural areas for the NERR
- Delineate the boundaries of the natural areas site(s) of the NERR

SITE-SELECTION COMMITTEES

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University of Wisconsin Green Bay

Committees were formed to:

- Represent a range of interests around the bay
- Breadth of professional expertise
- Geographic representation

Members include representation from:

Oneida Nation

Wisconsin Sea Grant

Ducks Unlimited

Microsoft TechSpark Wisconsin

Calumet County Dept. of Administration

Marinette School District

Friends of Gibraltar Schools

University of Wisconsin- Madison

Menominee Indian Tribe of Wisconsin

Department of Natural Resources

University of Wisconsin-Milwaukee

Wisconsin Coastal Management Program

Door County Soil & Water Conservation

University of Wisconsin-Green Bay

WI Tribal Conservation Advisory Council

NOAA Great Lakes Environmental Research Laboratory

UW-Extension

US Fish and Wildlife Service

The Nature Conservancy

NEW Water

Fincanterri Marine Group

NOAA Great Lakes Environmental Research Lab

Brown County Port & Resource Recovery

Wisconsin Wetland Association

Committees represent NE Wisconsin

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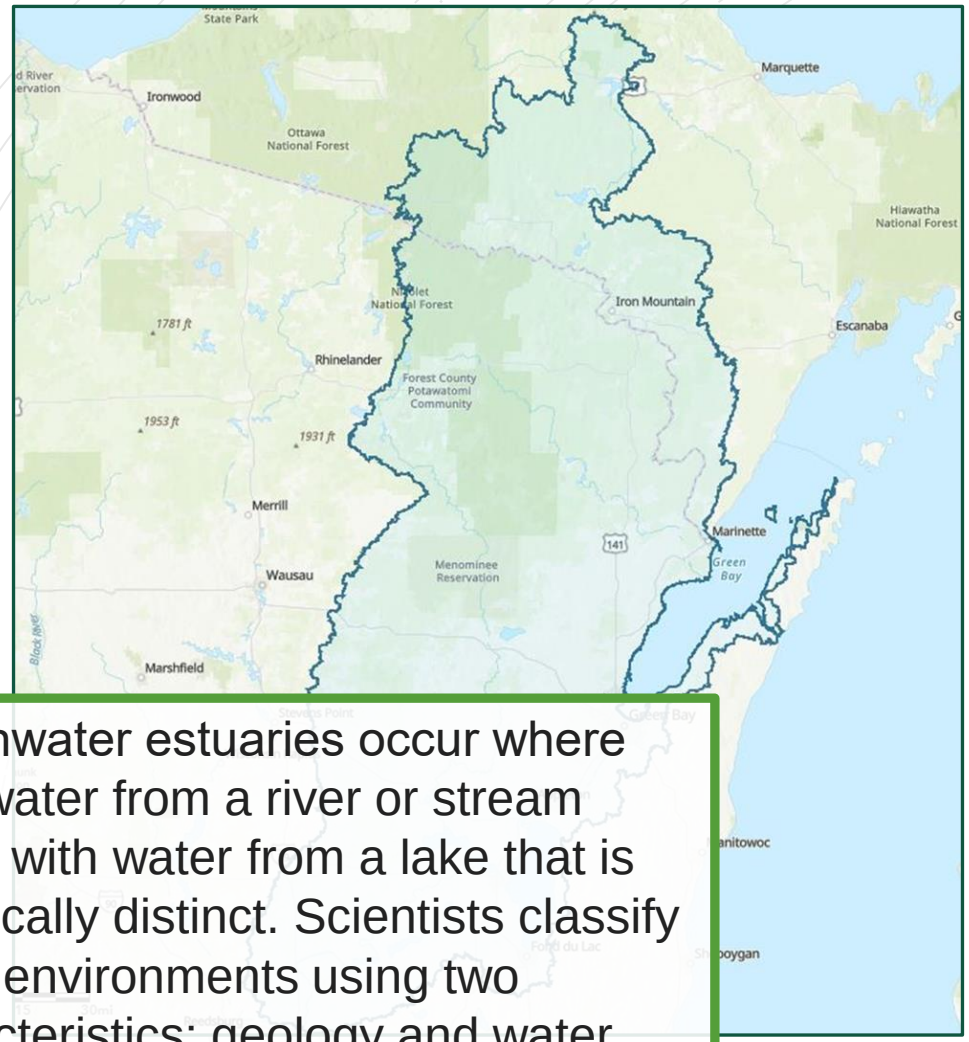
THE PROCESS TO SELECT THE NATURAL AREAS

The goal of pre-screening was to narrow the universe of the possible to a subset of most likely natural area sites to represent the Bay of Green Bay Estuary

Natural areas → Facilities



"Freshwater estuaries occur where freshwater from a river or stream mixes with water from a lake that is chemically distinct. Scientists classify these environments using two characteristics: geology and water circulation." -NOAA

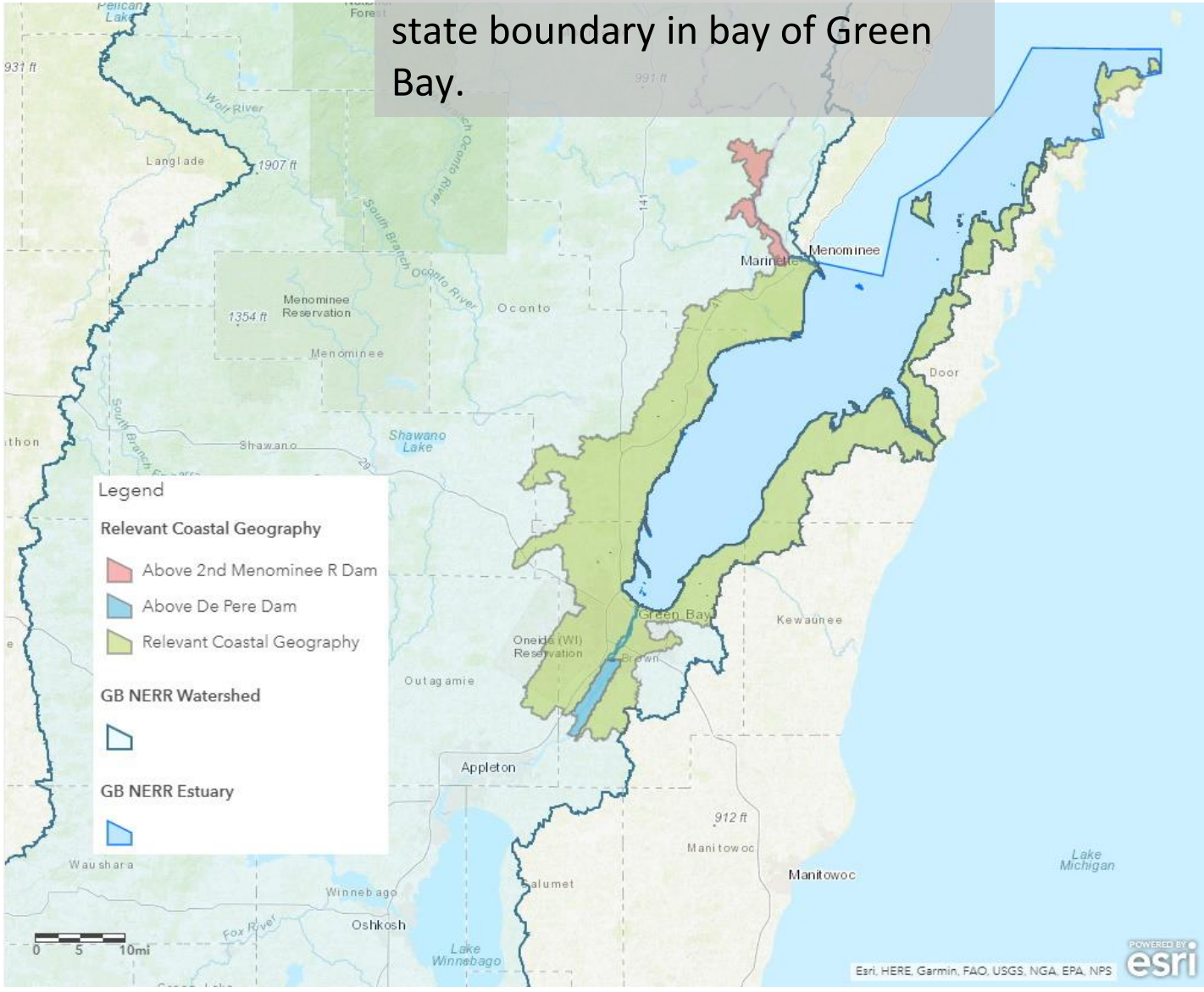
The Bay of Green Bay Estuary is a large, dynamic, and complex system

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

Watershed area that directly contributes surface runoff to Wisconsin waters of Green Bay.

Coastal HUC 12 watersheds and state boundary in bay of Green Bay.



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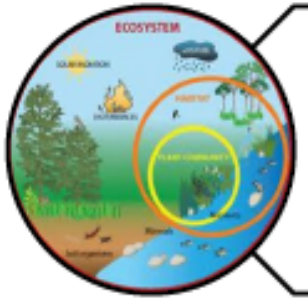

IDENTIFICATION OF POTENTIAL SITES THAT ARE REPRESENTATIVE of the biogeography, suitable for long-term research and education, compatible with existing uses, and containing key land and waters to approximate an ecological unit. Look at potential sites within the entire biogeographic sub-region of the state.

Pre-screening

Narrow the field of possible areas for application of the detailed site criteria.

Four Pre-screening Criteria for the natural area sites:

1. Is the area publicly owned or a land trust property?
2. Is the area coastal/estuarine?
3. Is the area connected to the estuary in a significant way?
4. Does the area have features aligned with the research and education goals of the NERR (i.e. not a playground)

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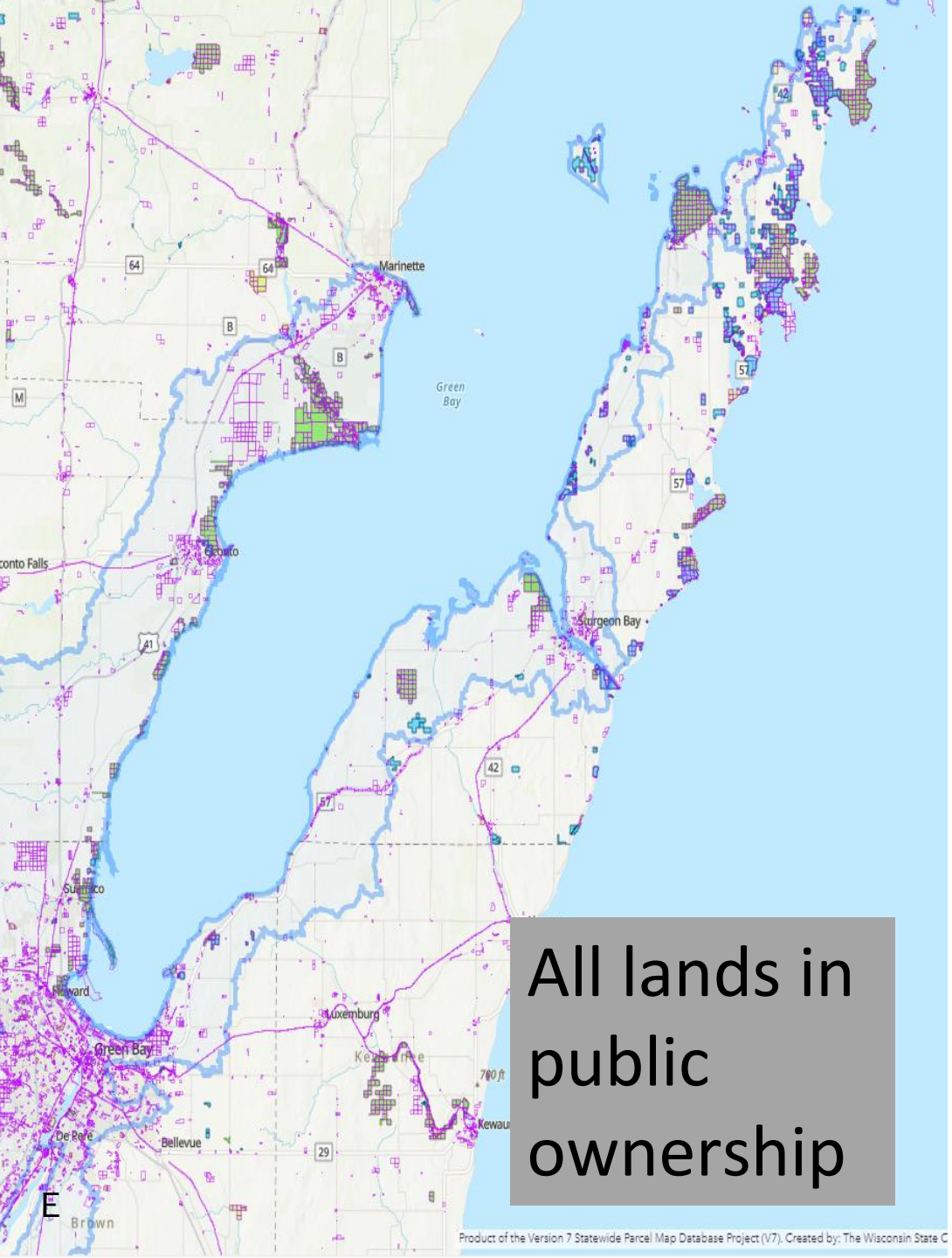
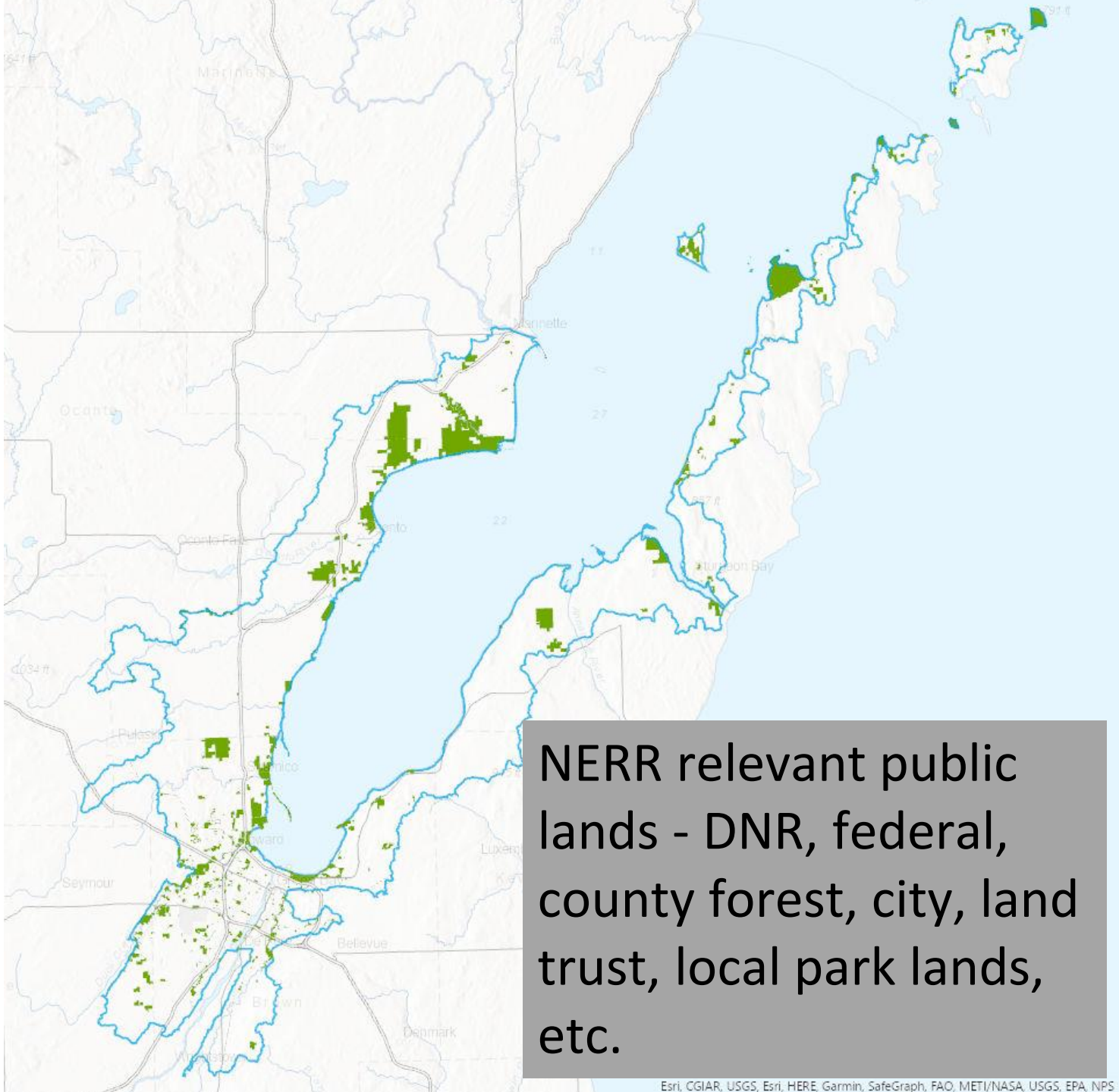


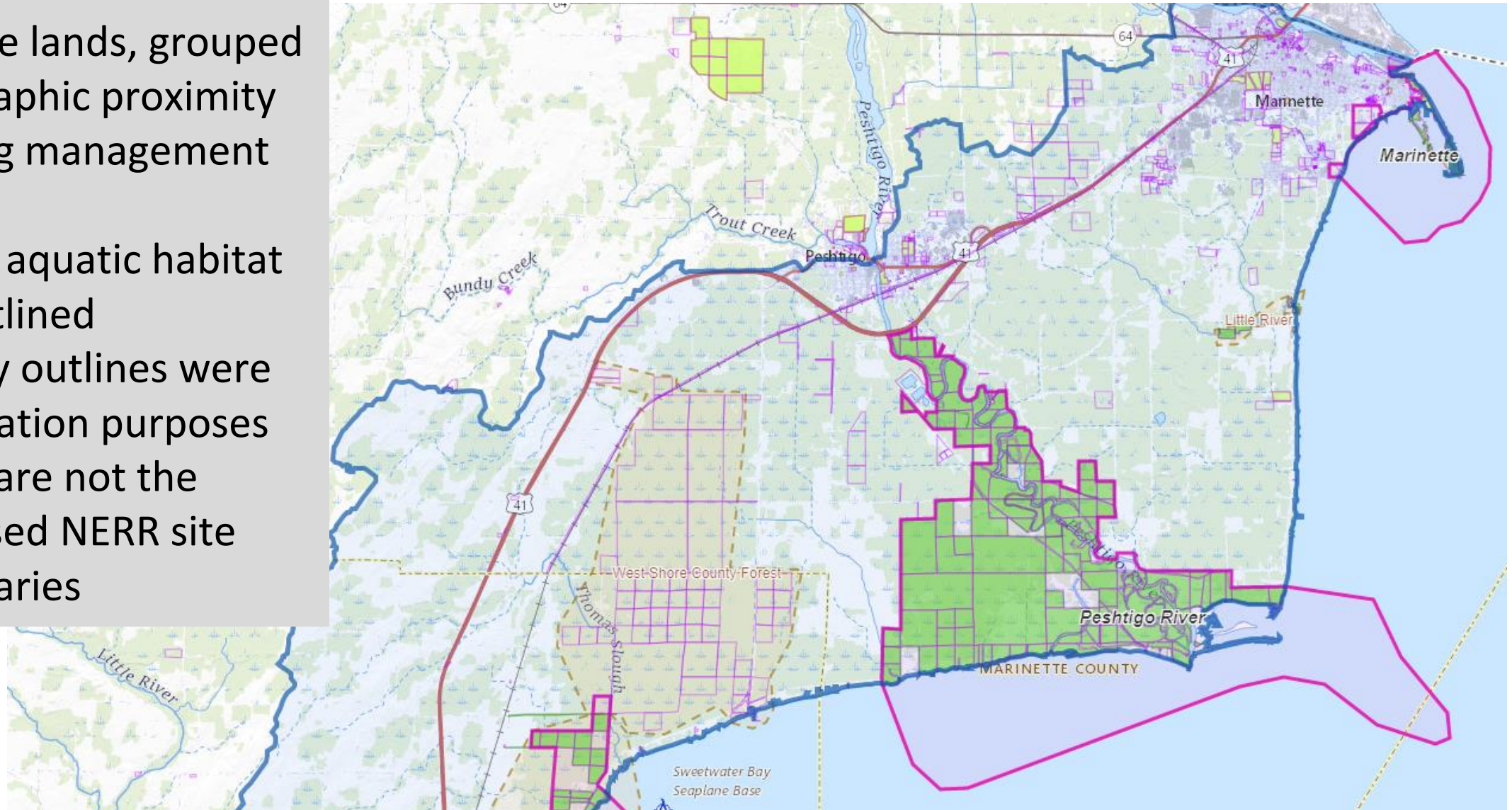
All lands in public ownership



NERR relevant public lands - DNR, federal, county forest, city, land trust, local park lands, etc.

Refinement and narrowing to draft **Candidate Site Areas**

- Candidate lands, grouped by geographic proximity & existing management units
- Adjacent aquatic habitat areas outlined
- Boundary outlines were for evaluation purposes
  - These are not the proposed NERR site boundaries



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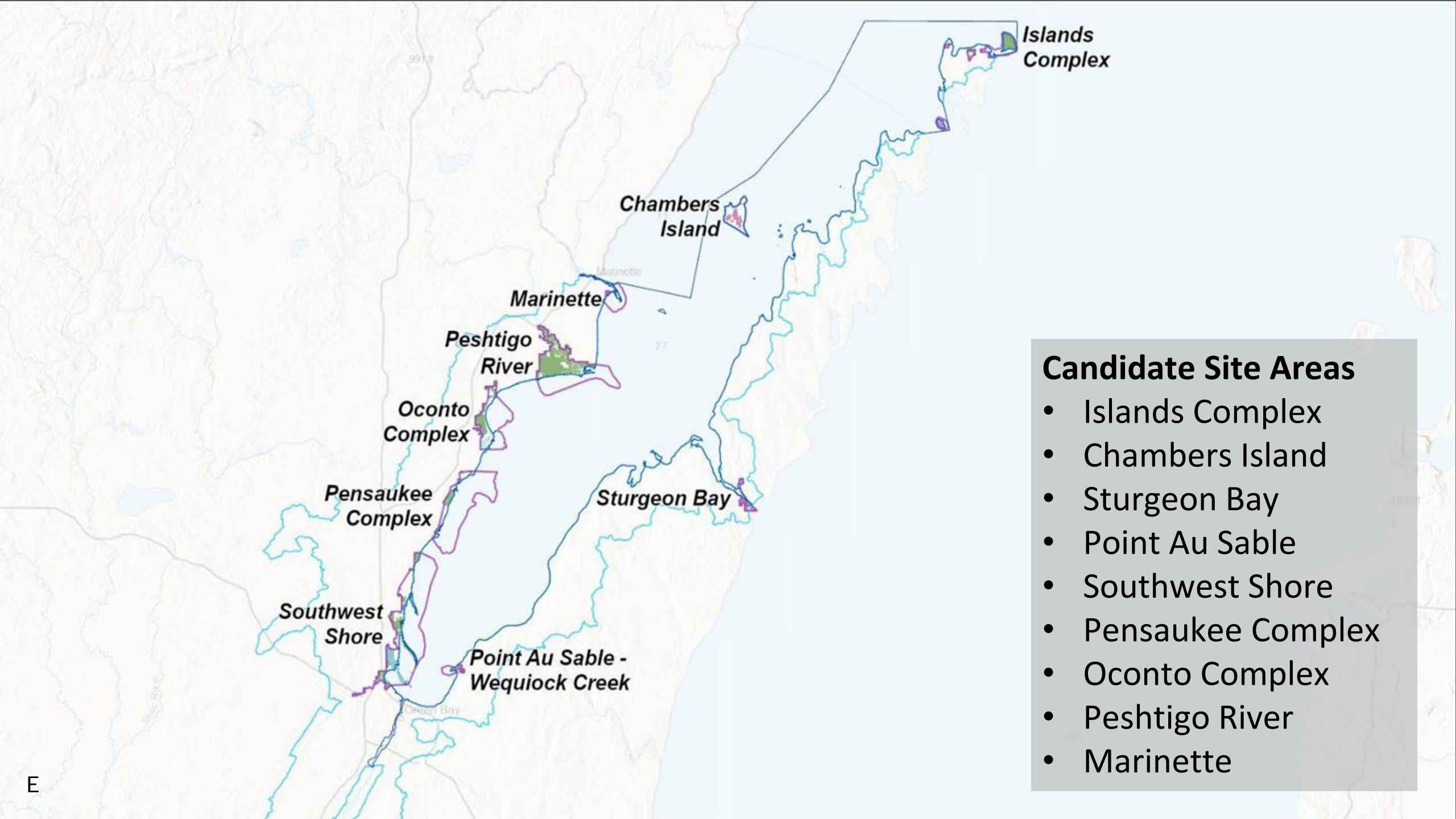

Candidate Site Areas

- Islands Complex
- Chambers Island
- Sturgeon Bay
- Point Au Sable
- Southwest Shore
- Pensaukee Complex
- Oconto Complex
- Peshtigo River
- Marinette

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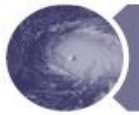
I. Environmental Representativeness

II. Value of the Site for Research, Monitoring, and Resource Protection

III. Suitability of the Site for Education and Interpretation

IV. Acquisition and Management Considerations



V. Natural Resource and Build Infrastructure Resilience to Climate Change Impacts

VI. Partnership Building

VII. Institutional Commitment

SITE SELECTION CATEGORIES – NATURAL AREAS

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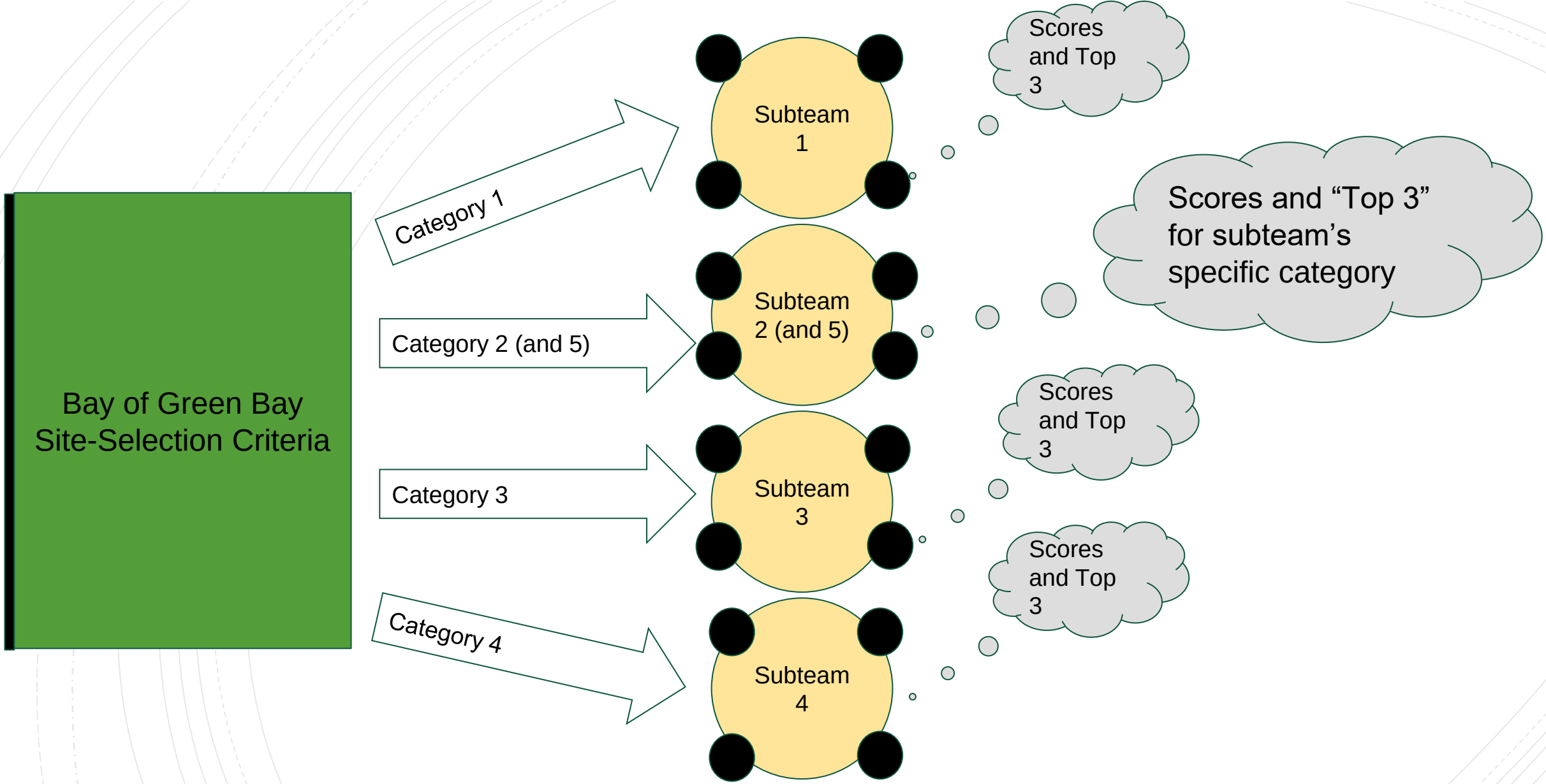

APPLYING CRITERIA

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	1. Environmental representativeness	2 Research, monitoring, resource protection	3. Education	4. Land management	5. Resilience to Climate Change
Marinette			3		
Peshtigo	1			1	2
Oconto					3
Pensaukee		2		2	
Southwest shore	2	1	1		1
Point Sable	3	3			
Sturgeon Bay			2	3	
Islands					
Chambers Island					

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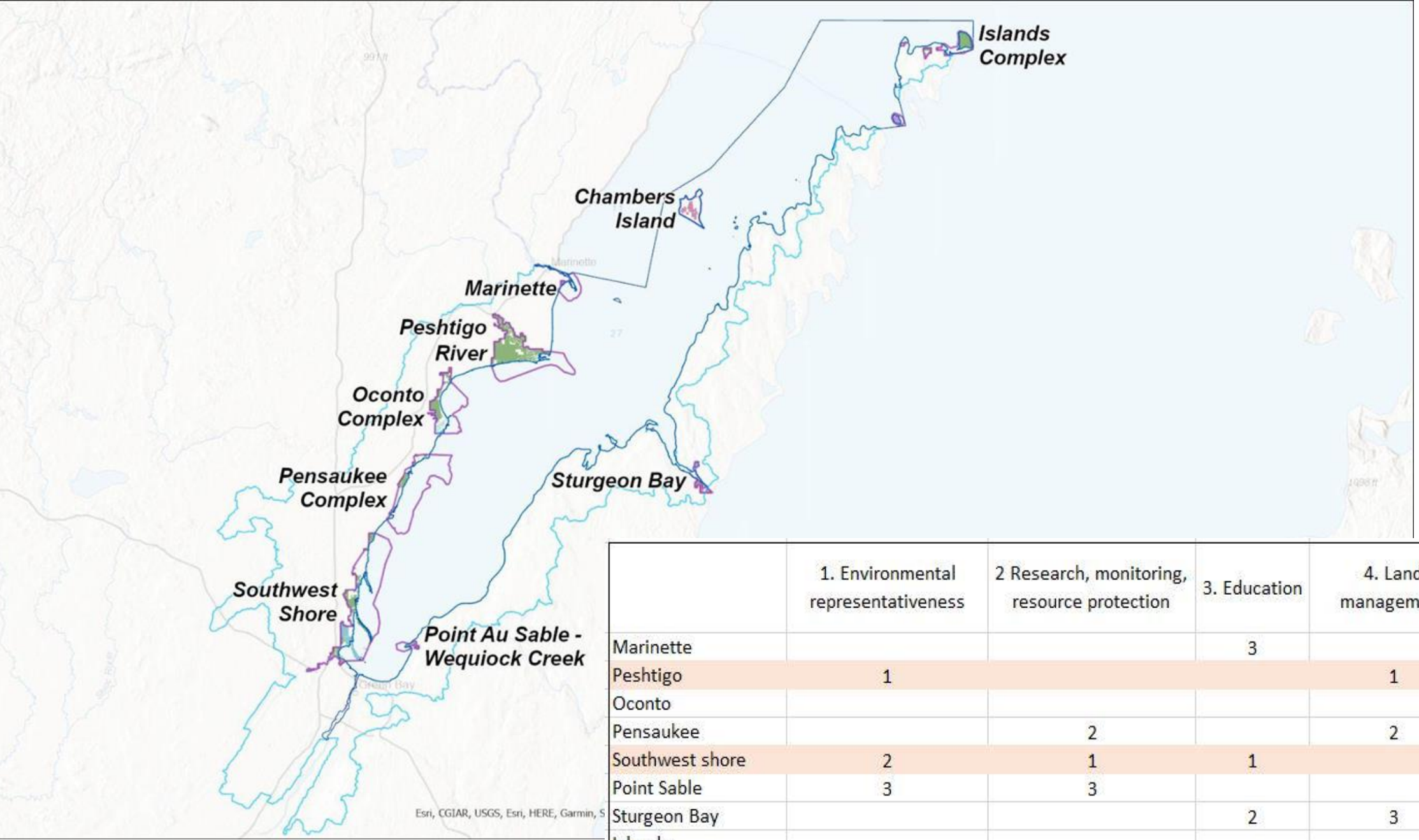

	1. Environmental representativeness	2 Research, monitoring, resource protection	3. Education	4. Land management	5. Resilience to Climate Change
Marinette			3		
Peshtigo	1			1	2
Oconto					3
Pensaukee		2		2	
Southwest shore	2	1	1		1
Point Sable	3	3			
Sturgeon Bay			2	3	
Islands					
Chambers Island					

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Why consider a third location?

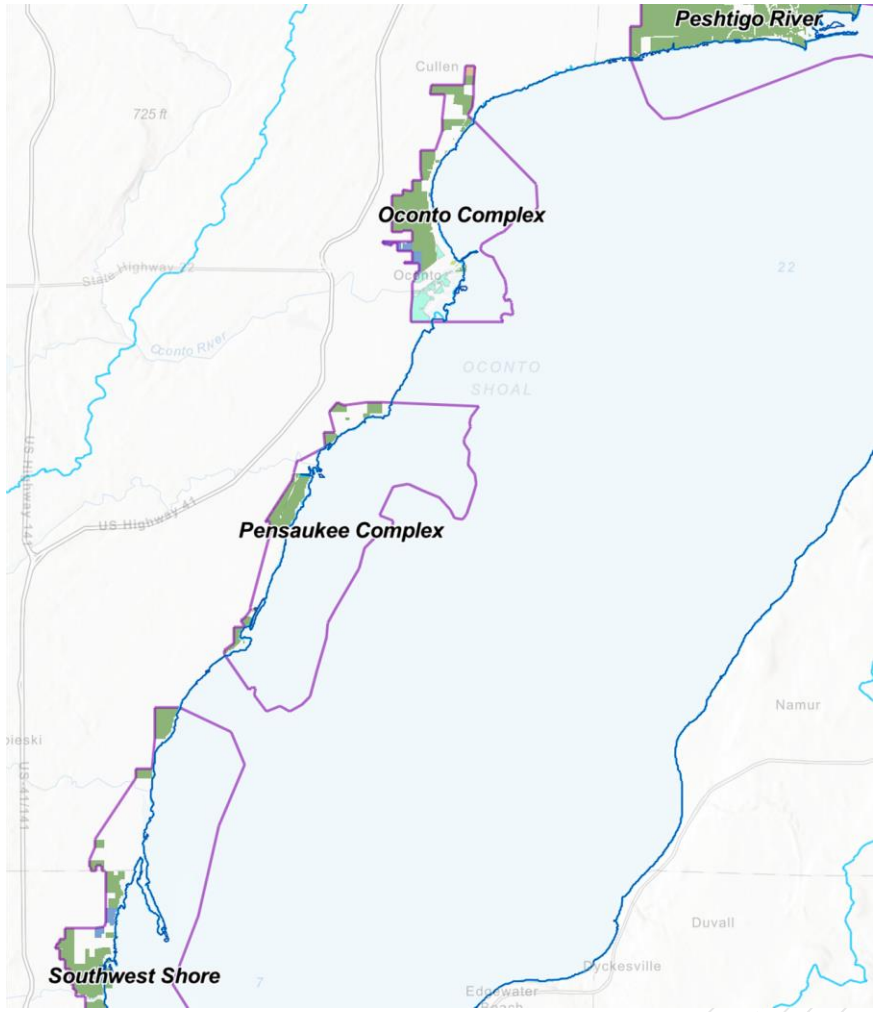
What's Missing?

- East shore representation of the estuary
- Full water circulation patterns up the east shore
- Historical lower bay complex that stretched from west to (un-represented) east shore
- UW-Green Bay as a land manager
- Maximizing populations NERR is serving (e.g. opportunity for public engagement with large number of visitors through Door County)

Should we add Pensaukee?

No, because…

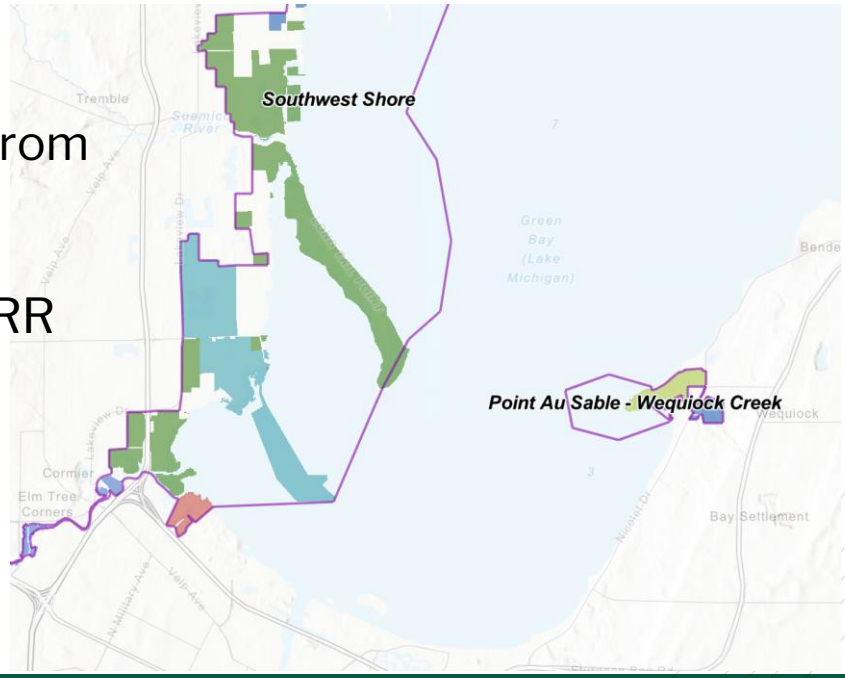
- Doesn't overcome any of the items missing
- Large land area but doesn't add distinct habitats, geology, etc
- Has a lot of existing research and monitoring, but it's not exclusive to Pensaukee
- Lacks significant estuarine feature (mouth of Pensaukee River)



Should we add Point au Sable/Wequiock Creek?

Yes, AND combined it with Southwest Shore to make a Lower Bay candidate site because…

- Adds East shore representation of the estuary, adds different geology
- Adds some water circulation up the east shore
- Was historically part of the lower bay complex that stretched from southwest shore to Point au Sable
- Includes UW-Green Bay as a land manager (following same NERR management plan as others)
- Site has important Tribal history and involvement
- Close to university students and resources



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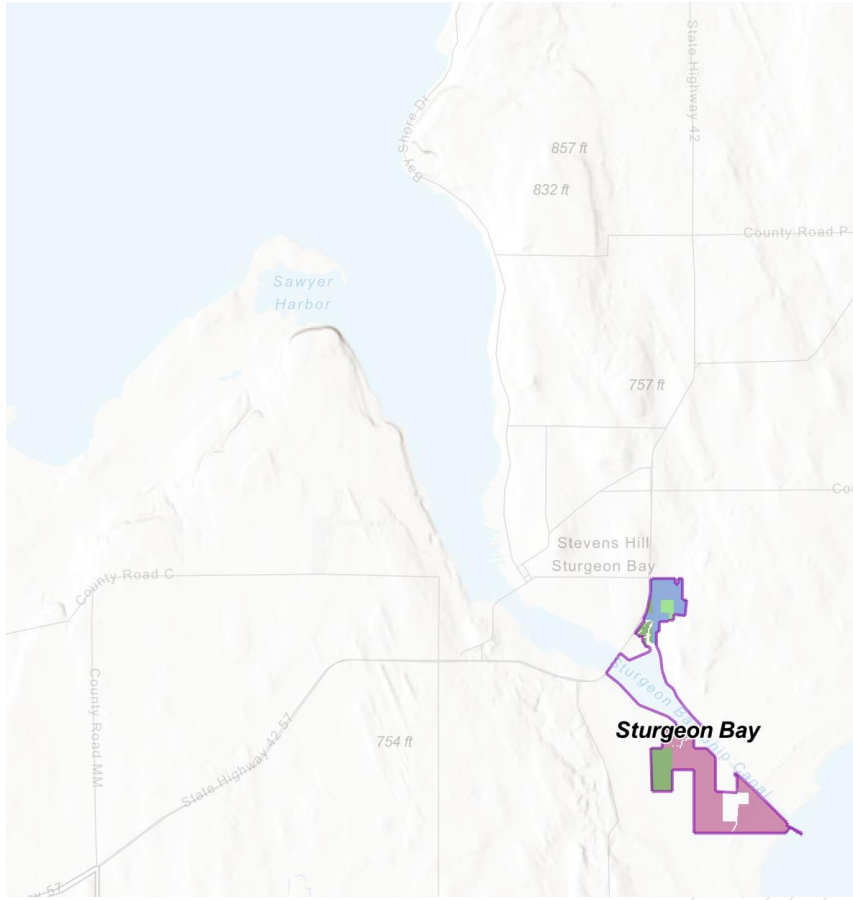
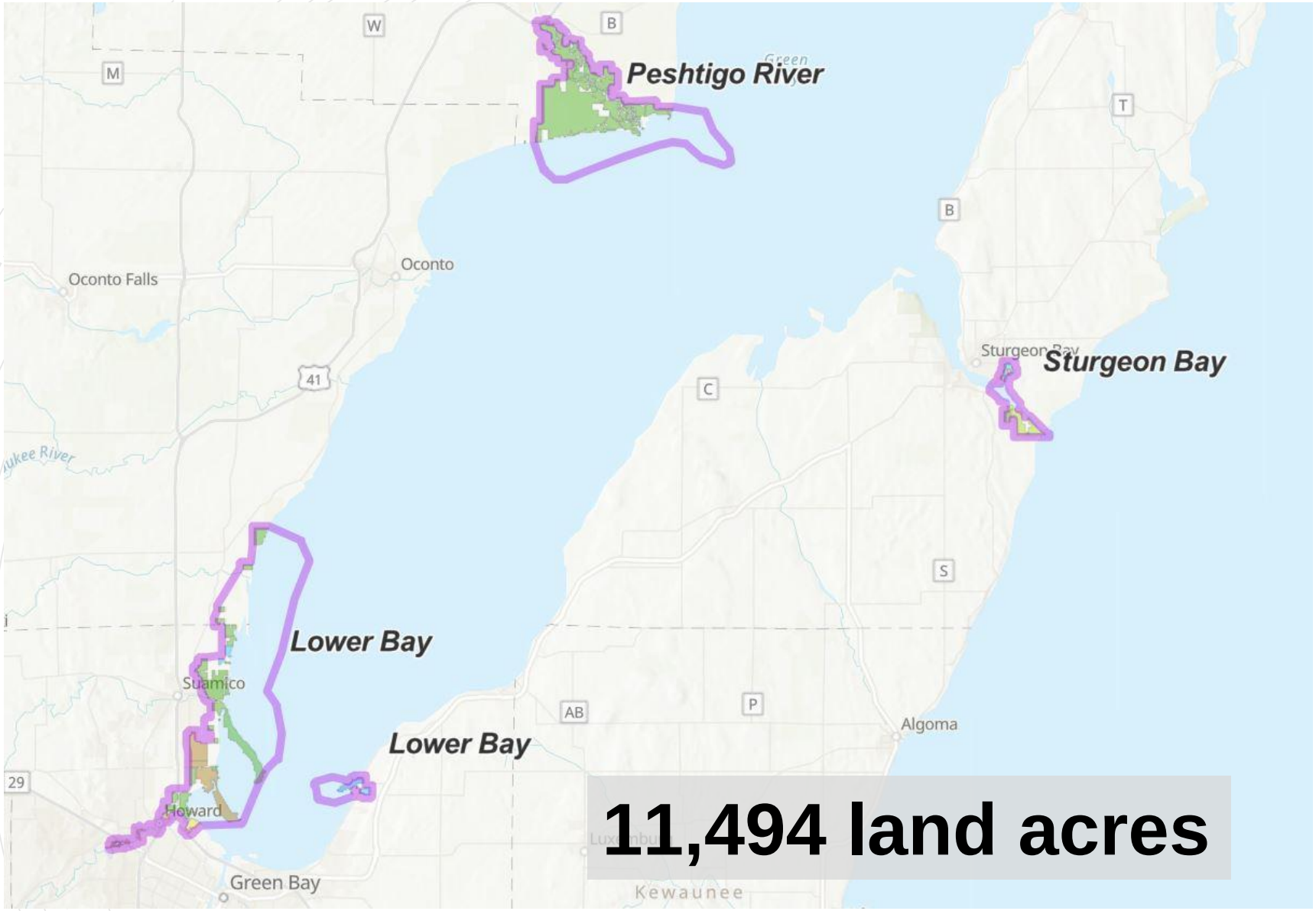
Should we add Sturgeon Bay?

Yes, because…

- Adds East shore representation of the estuary
- Adds more complete water circulation patterns up the east shore
- Opportunity for outreach, education, stewardship to Door County tourists, citizens, students
- Adds partners, access points
- Captures additional unique environmental features (habitat, species)
- Strawberry Creek and Big Creek add shorter river systems with different geology





PRELIMINARY RECOMMENDED SITES FOR THE NATURAL AREAS OF THE NERR

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Partnerships not restricted by designation boundaries

NEXT STEPS IN THE SITE-SELECTION PROCESS

- Sept 15 – Public comments due
- Week of Sept 19 – Site Evaluation Committee considers public comments, makes final recommendation to Site Coordination Committee
- Week of Sept 26 – Site Coordination Committee hears recommendation, vote on recommended sites
- Early October – Conversations with relevant land managers; boundary delineation
- Late October – Nomination document to Governor's Office

NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM

The Designation Process
Next Steps and Roles

Bridget Faust-Accola

September 2022

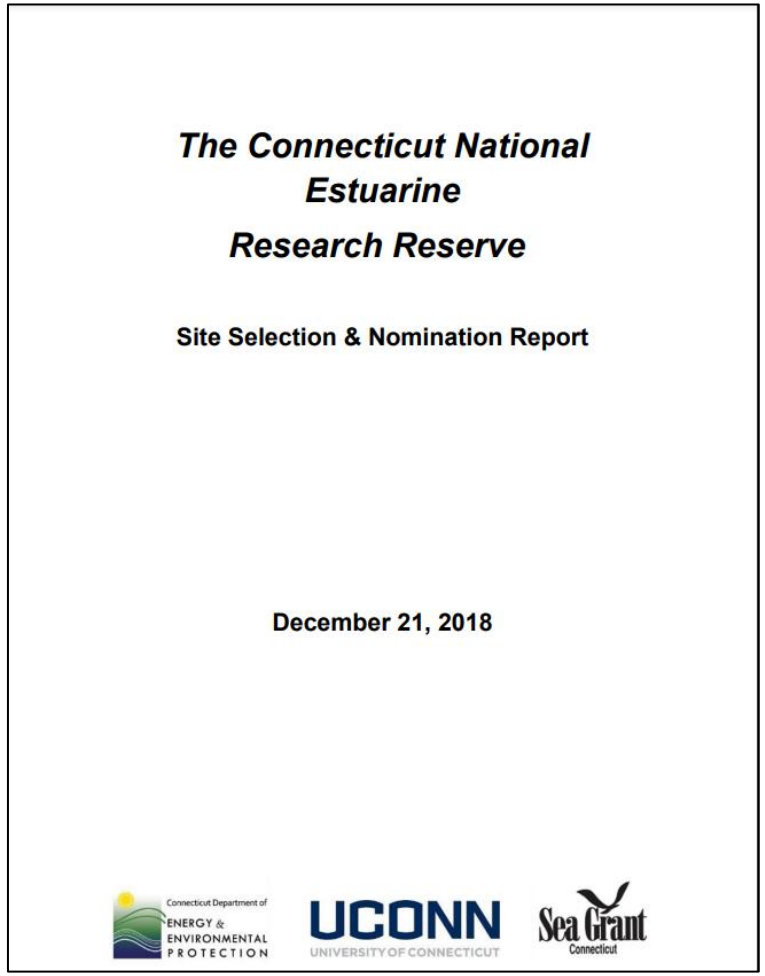
Site Nomination Document Review Process

Key considerations:

- Addresses minimum requirements in designation guidance
- Consistent with reserve system regulations
- Process met procedural requirements
- Public comments documented, considered

Review timeline:

- 3 to 4 months, on average



Designation Process and Milestones

Thank you!

Bridget.Faust@noaa.gov

Bay of Green Bay NERR Designation Timeline

<table>
<tr><th>2022</th><th>2023</th><th colspan="2">2024</th><th>End of 2024</th></tr>
<tr><td rowspan="3">Select NERR Sites - Natural Areas</td><td colspan="2">Select NERR - Education and Visitor Center location</td><td rowspan="3">Finding and Record of Decision</td><td rowspan="3">Designation</td></tr>
<tr><td colspan="2">Write NERR Management Plan</td></tr>
<tr><td>Prepare Environmental Impact Statement (with NOAA)</td><td>Develop NOAA-State MOUs</td></tr>
</table>

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NEXT STEPS FOR CONTRIBUTING FEEDBACK

Written comments should be sent to Emily Tyner, tynere@uwgb.edu

All written comments must be received no later than **September 15, 2022**

LEARN MORE

uwgb.edu/nerr

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