



AUDUBON ISLANDS STATE NATURE PRESERVE RESTORATION PLANS STAKEHOLDER OUTREACH Summer 2023



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Habitat Improvement Planning Activities are Underway in the Maumee River!

1. Project Area and Overall Intent of Project
2. Who is Working On Planning Activities
3. Brief History of What Led to this Effort, Funding Source and Current Conditions
4. Draft Restoration Designs for Public Input
5. Project Benefits
6. Potential Timeline for Next Steps
7. Contact Information



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INTENT OF OUTREACH

1. INFORM STAKEHOLDERS OF PLANNING EFFORTS
2. SEEK INPUT ON PLANS



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PROJECT AREA



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PROJECT TEAM



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GLRI-FUNDED PROJECT PLANS

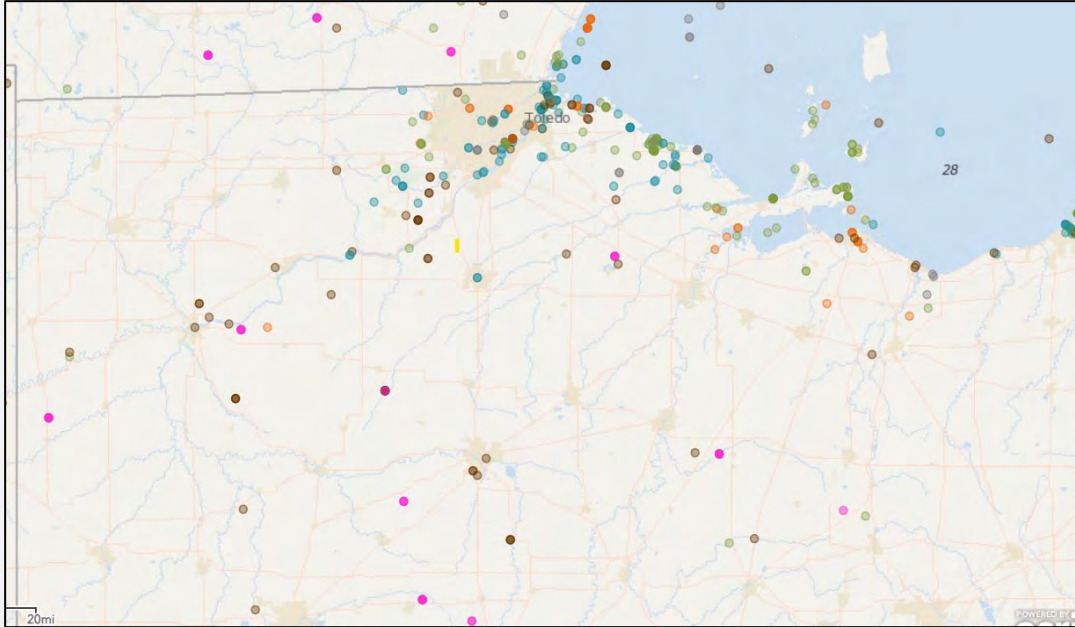
- The Metroparks received a \$3,600,000 GLRI grant for engineering, design, permitting, public outreach activities, and restoration activities.
- A finished project with primary focus on increased riverbank stability and habitat diversity and quality is expected by December 2024 followed by planting maintenance in early 2025.



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GLRI PROJECTS IN REGION



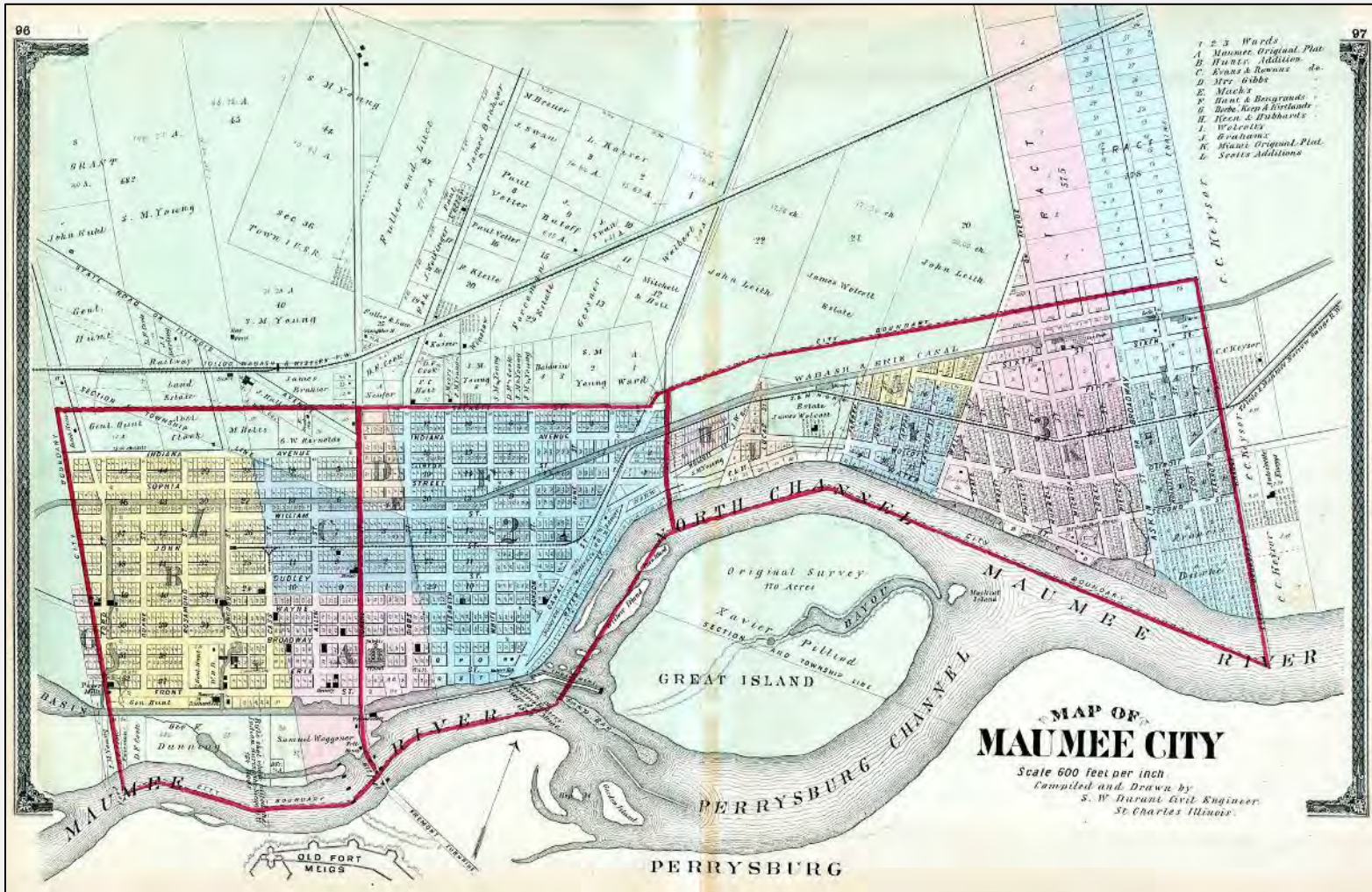
GLRI has accelerated efforts to protect and restore the Great Lakes since 2010. Built upon the foundation of the Great Lakes Regional Collaboration Strategy, GLRI answered a challenge of the governors of the Great Lakes states and has tremendously supported the Maumee Area of Concern restoration efforts.



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AUDUBON ISLAND COMPLEX – 1875 MAP



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Great Lakes
RESTORATION



AUDUBON ISLAND COMPLEX – 1940s



AUDUBON ISLAND COMPLEX - 1969



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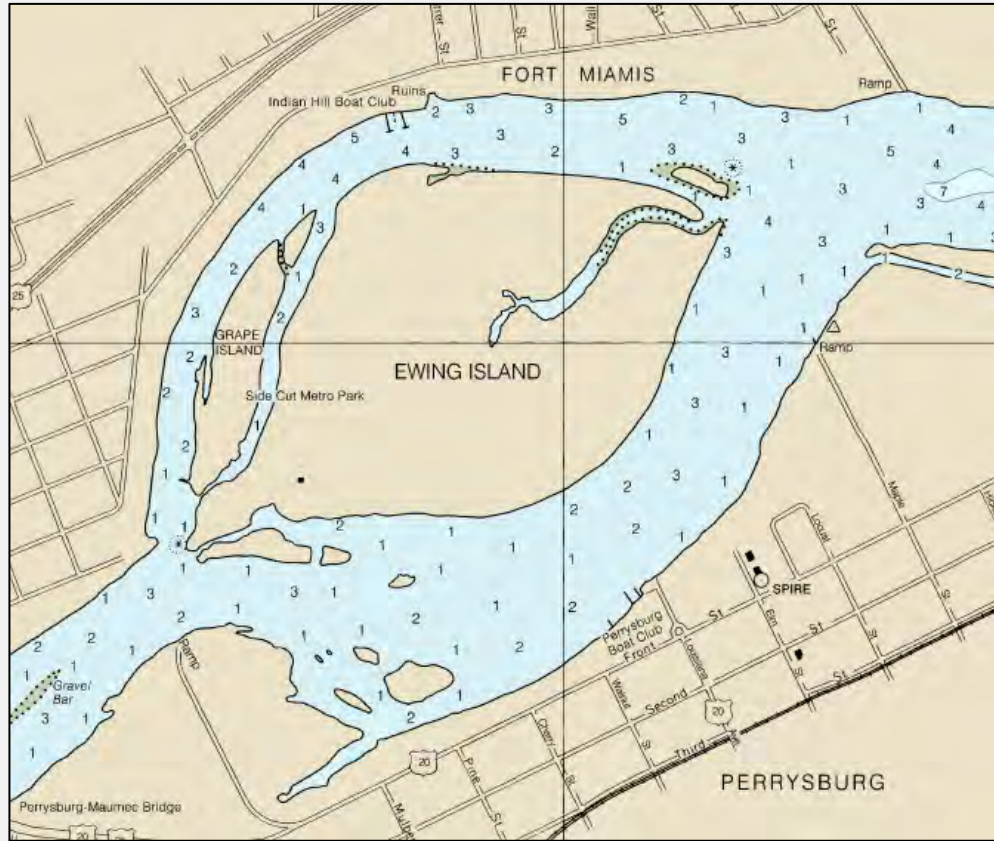
AUDUBON ISLAND COMPLEX - 2023



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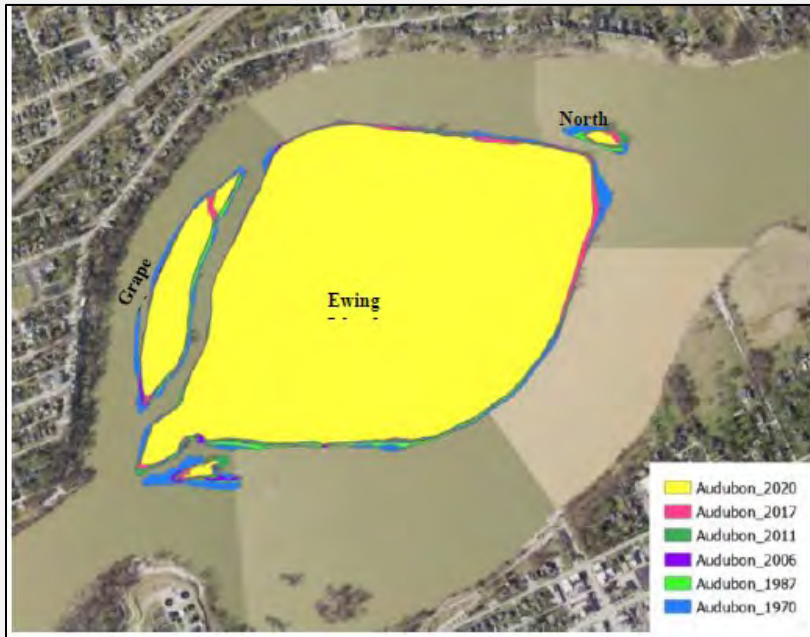
AUDUBON ISLAND COMPLEX



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CURRENT CONDITIONS



This complex is estimated to have lost 19.2 acres since 1963

Source: 2022 USACE Feasibility Study



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CURRENT CONDITIONS

- The Maumee River, from the Maumee-Perrysburg Bridge to its mouth, is impaired for fish habitat, fish communities, and benthic communities
 - This section of the river does not meet the minimum standards by Ohio EPA based on real surveys and assessments of fish habitat, fish communities, and benthic communities

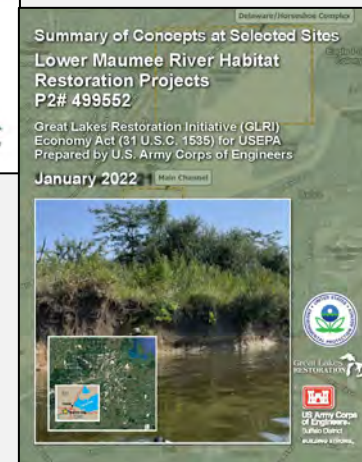
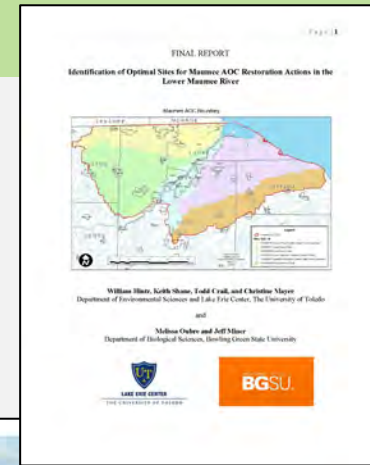


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RECENT EVALUATIONS

- 2019-2020 Maumee Mainstem Biological Baseline and Reference Conditions Assessments (University of Toledo & Bowling Green State University)
- 2020–2021 Restoration Design Concepts (University of Toledo, Bowling Green State University, & Hull/Verdantas)
- 2021-2022 Feasibility Study for Delaware/Horseshoe Island Complex, Marengo Island, Audubon/Ewing Island Complex
(USACE, USGS, Ohio EPA, ODNR, Partners for Clean Streams, & University of Toledo)
[+Hull/Verdantas assisted with public outreach]



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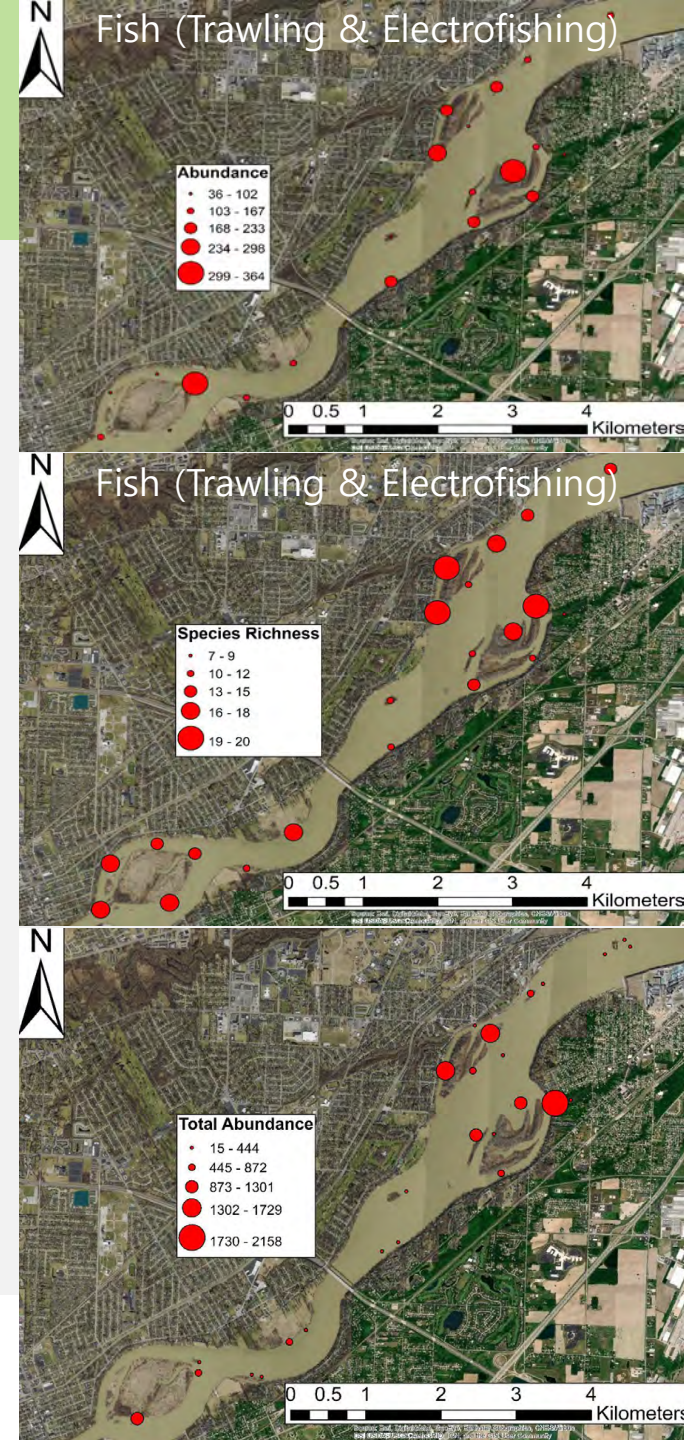
UT/BGSU BIOLOGICAL EVALUATIONS

“River island complexes provide a variety of different habitat types and increase habitat heterogeneity of the system and have been shown to have a significant positive effect on both the density and diversity of benthic invertebrates and fish species”

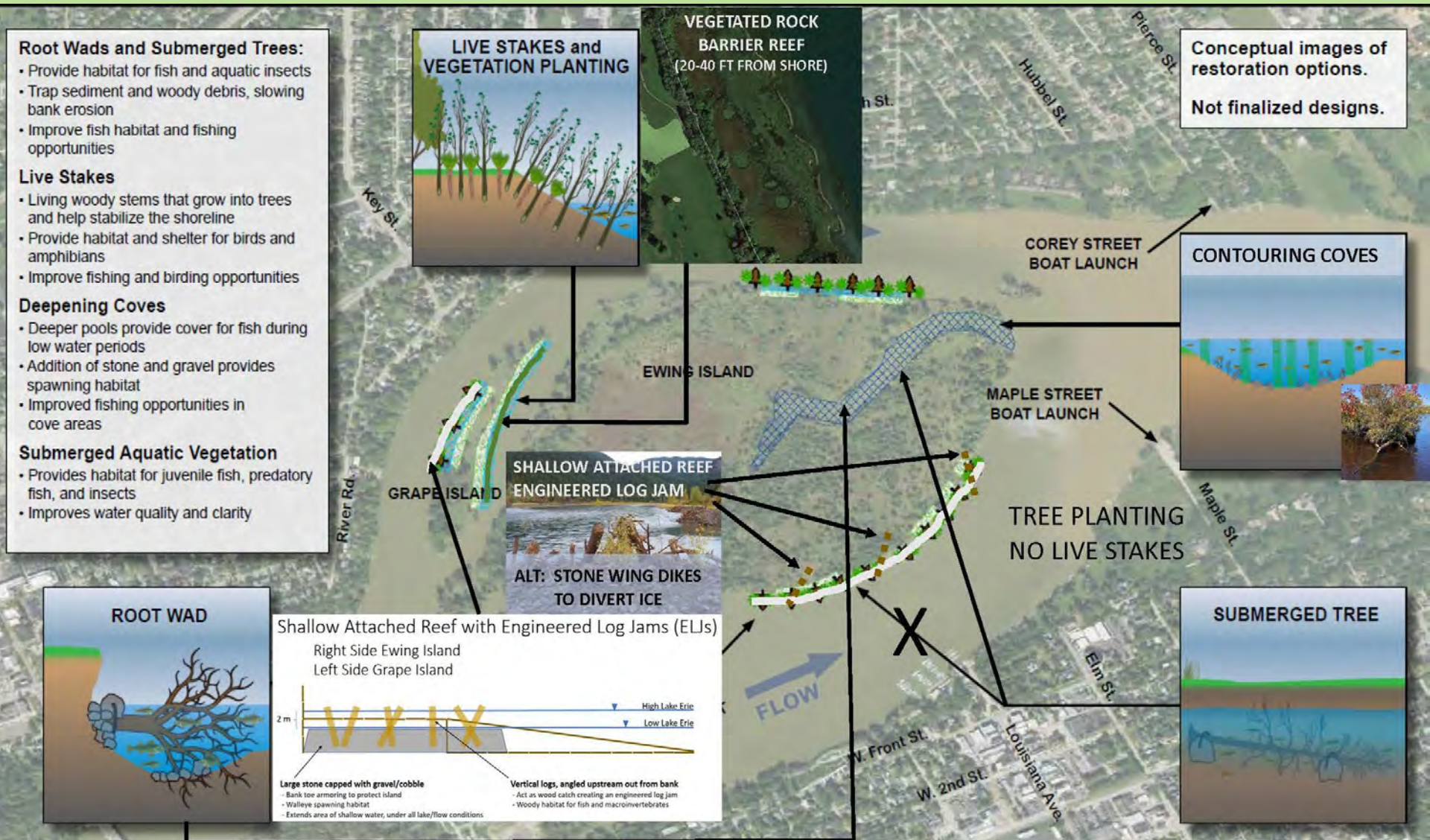
- Identification of Optimal Sites for Maumee AOC Restoration Actions in the Lower Maumee River, p. 37

In other words....

Maumee River islands provide ideal habitat



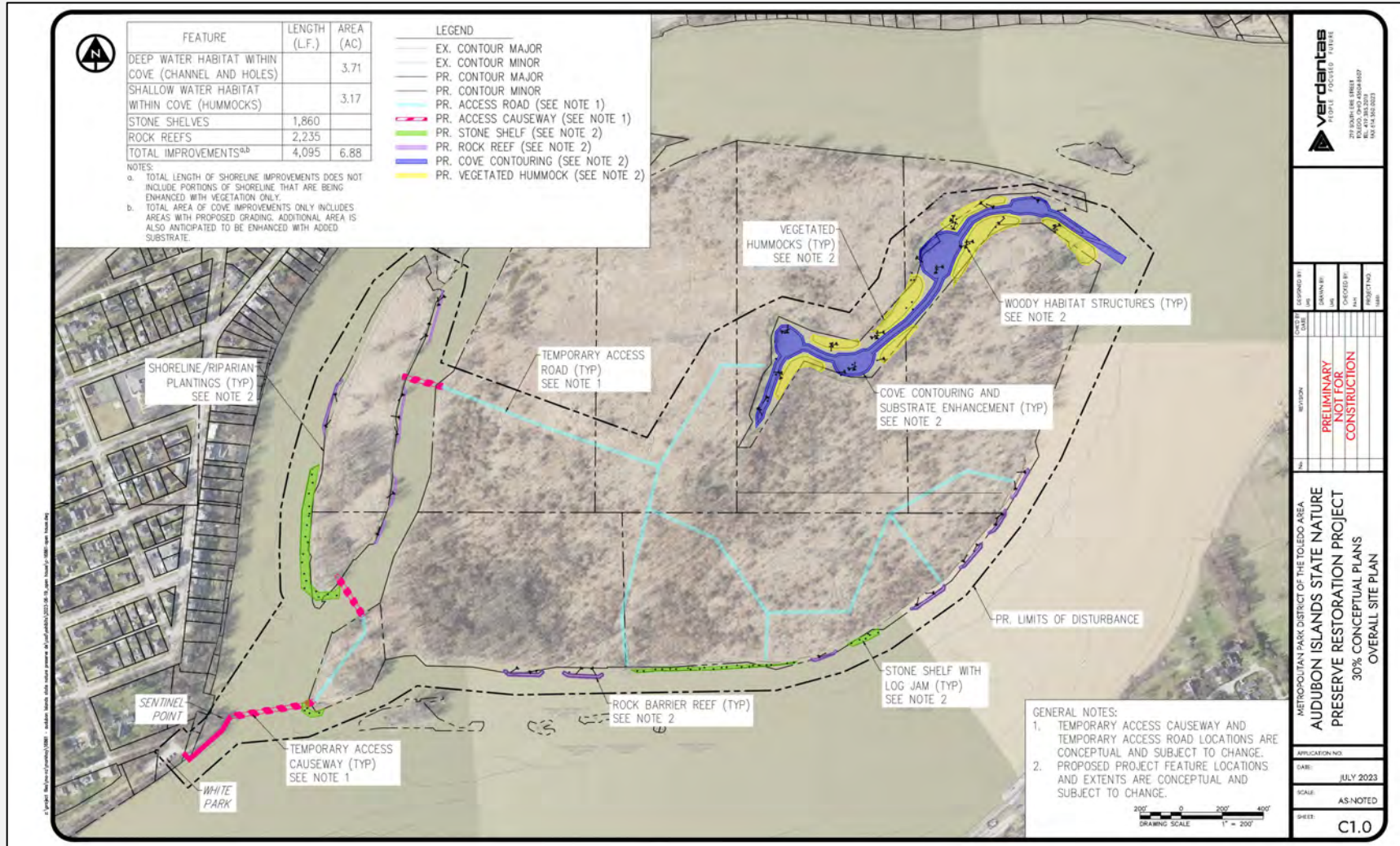
UPDATED - MAUMEE AOC AUDUBON ISLAND COMPLEX RESTORATION DESIGN OPTIONS FROM USACE STUDY



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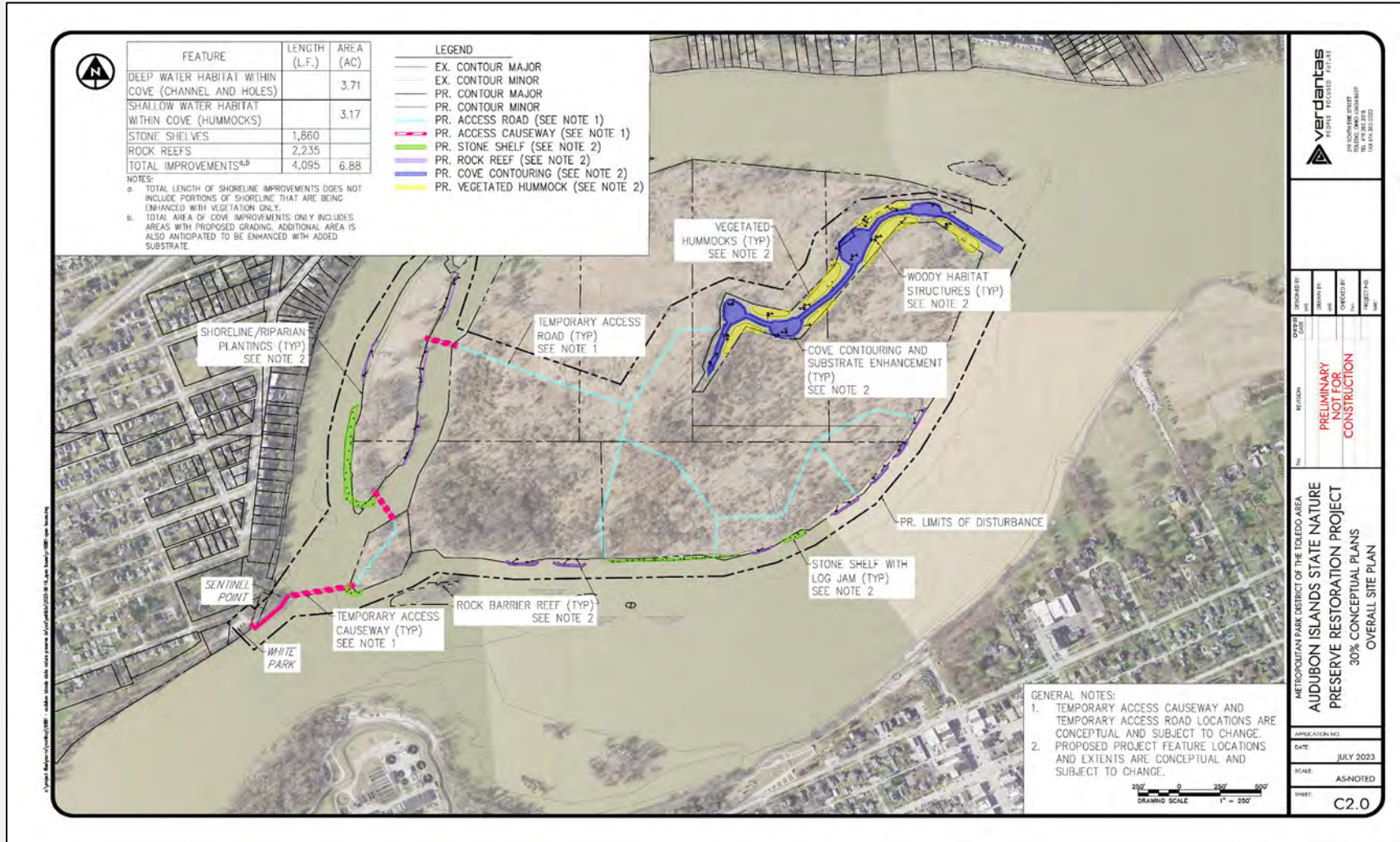
CONCEPTUAL PLAN



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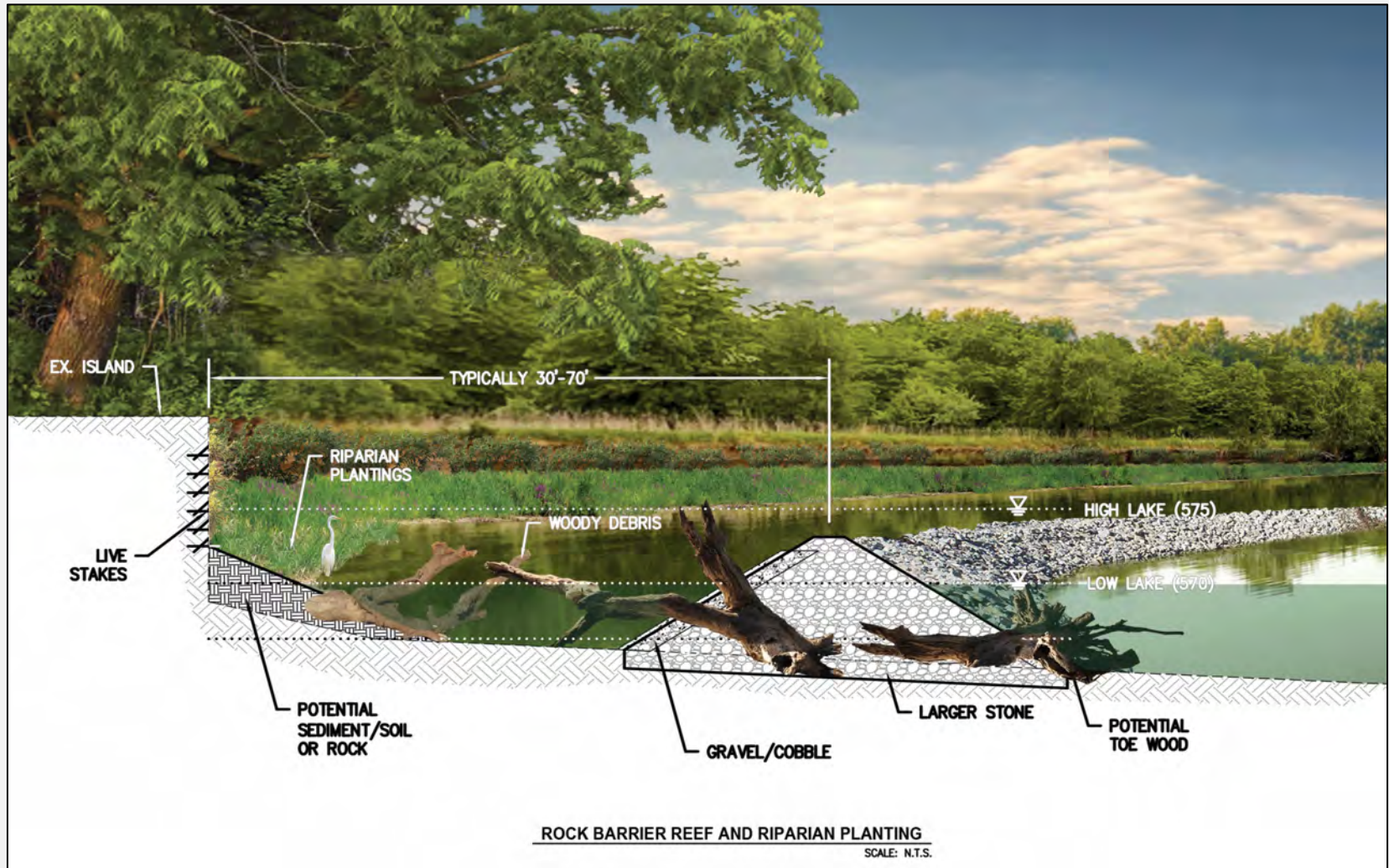
CONCEPTUAL PLAN



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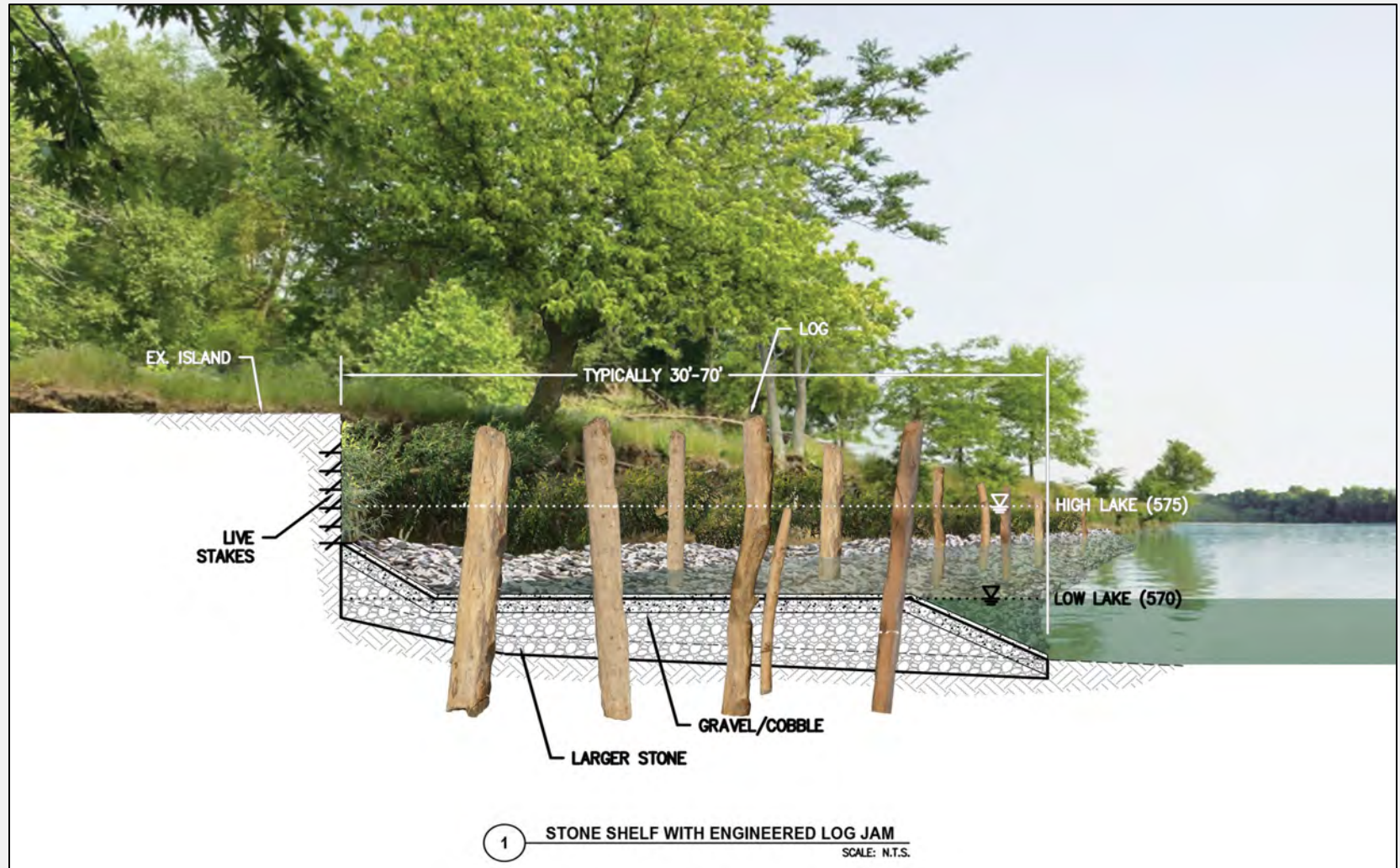
CONCEPTUAL CROSS-SECTION



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CONCEPTUAL CROSS-SECTION



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PROJECT BENEFITS

- Improved habitat (diversity & quality) for fish, invertebrates, other species through new deep-water habitat, vegetated hummocks and wood structures
- Protected and enhanced island and shoreline habitat:
 - Stabilizing eroding island banks
 - Reducing further island erosion
 - Creating resilience in ecological systems to withstand higher and more variable river flows



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ANTICIPATED SCHEDULE

- **Spring 2023:** Analyses and design underway; early stakeholder outreach
- **Summer/Fall 2023:** Engineering and design continuation; public outreach to share and seek input on development of design and construction plans
 - Public open houses in July and anticipated in early October
- **December 2023:** Design finalized with construction drawings prepared and permits requested
- **2024 - 2025:** Construction of eligible, permitted projects

PROJECT TEAM LIAISONS

Metropolitan Park District of the Toledo Area

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SUPPLEMENTAL INFORMATION TO SUPPORT DISCUSSIONS



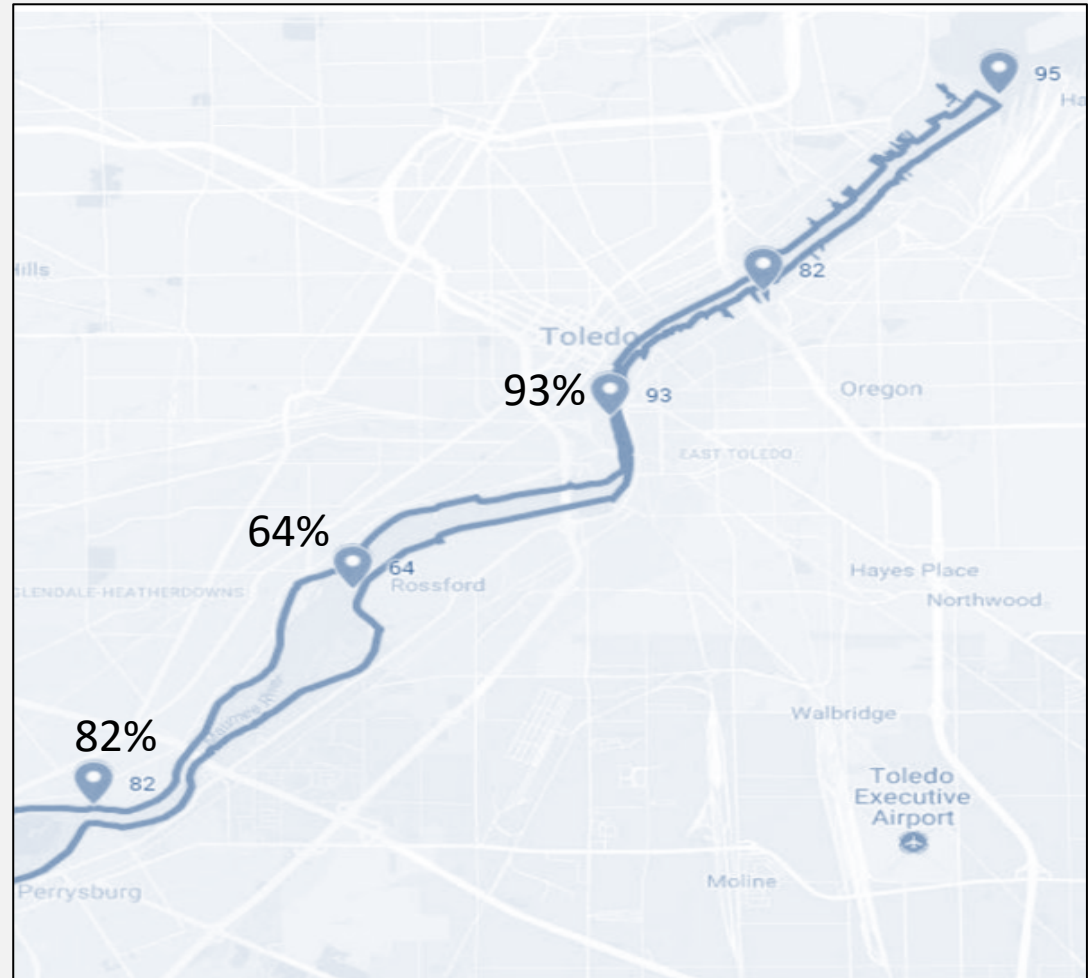
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FISH HABITAT

IMPAIRED FOR FISH HABITAT

- Achieves 83% of target (range: 64%-95%)



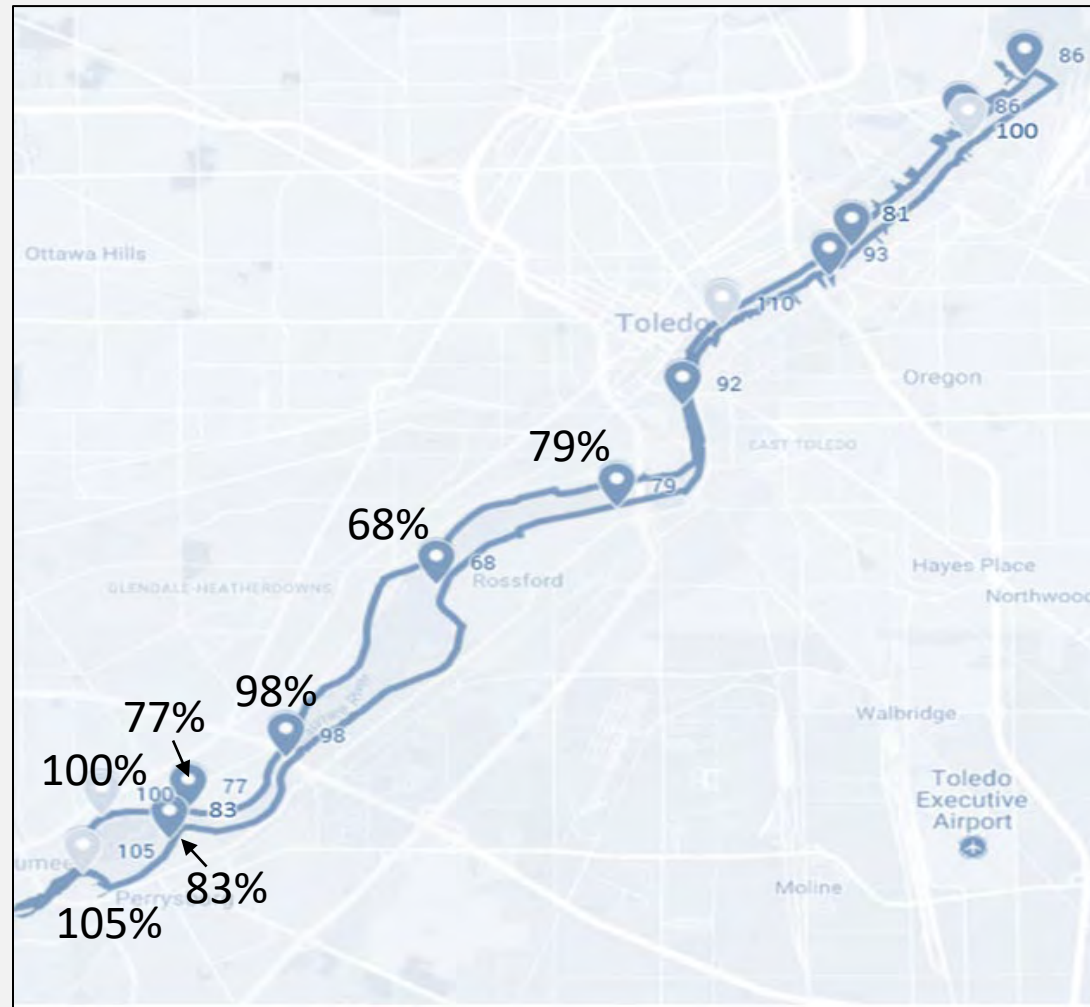
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FISH COMMUNITY

IMPAIRED FOR FISH COMMUNITY

- Achieves 90% of target (range: 68%-110%)



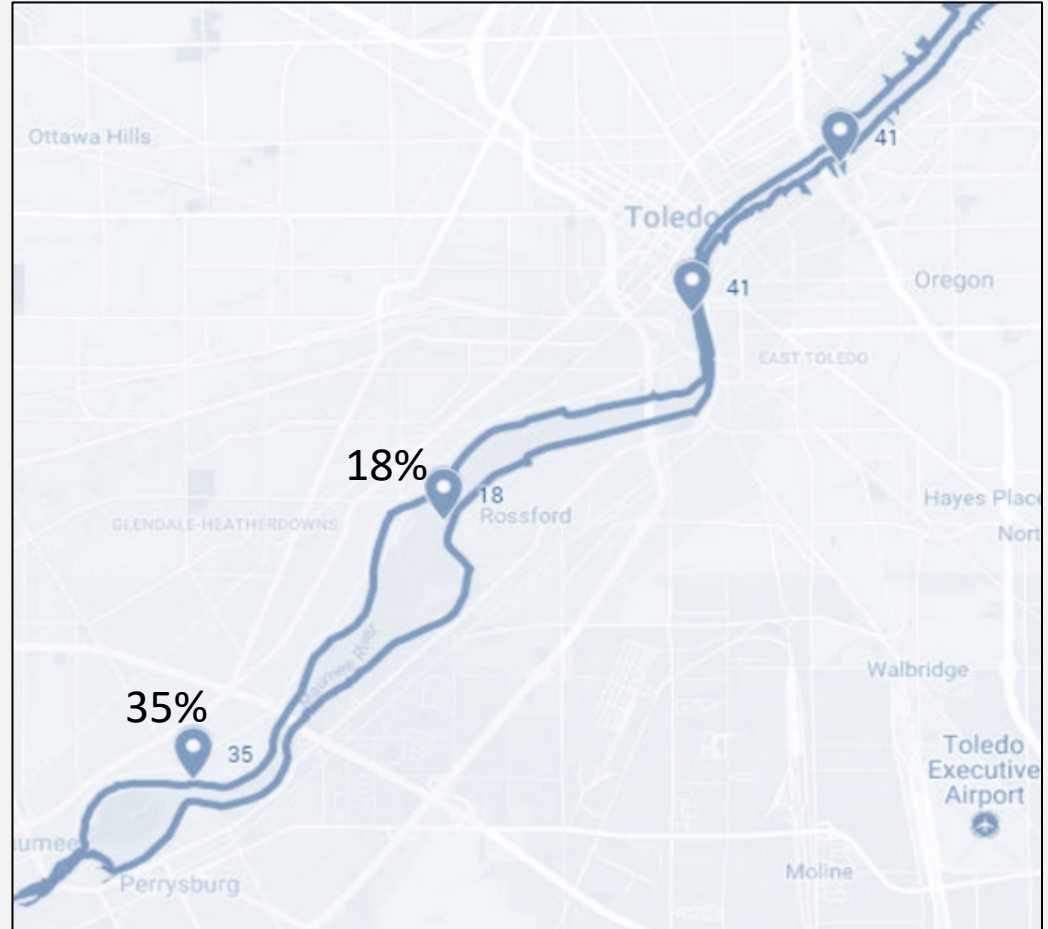
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BENTHIC COMMUNITY

IMPAIRED FOR INVERTEBRATES COMMUNITY

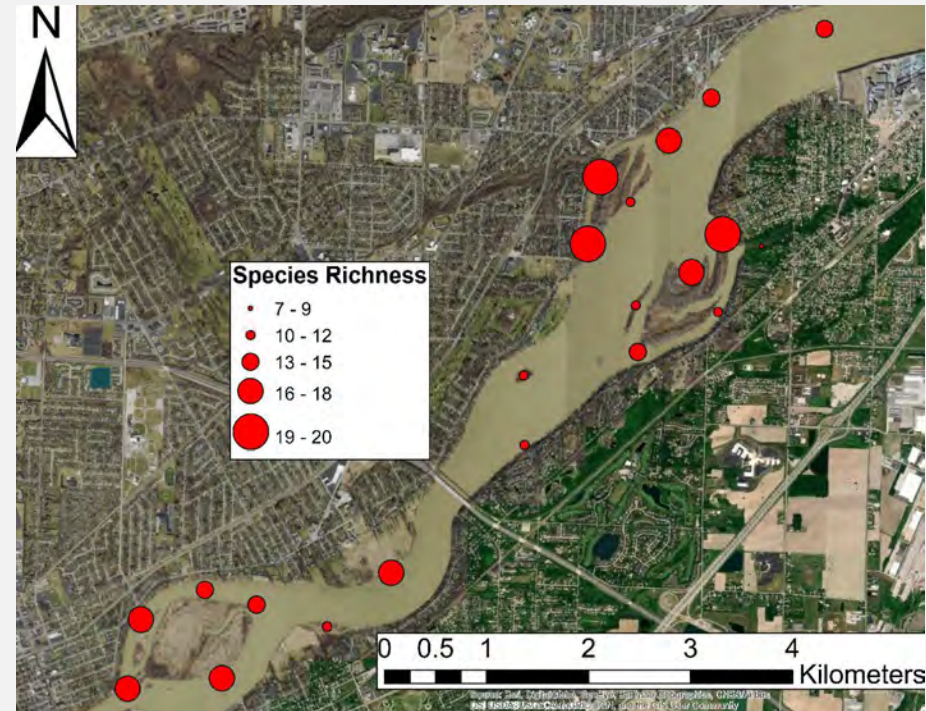
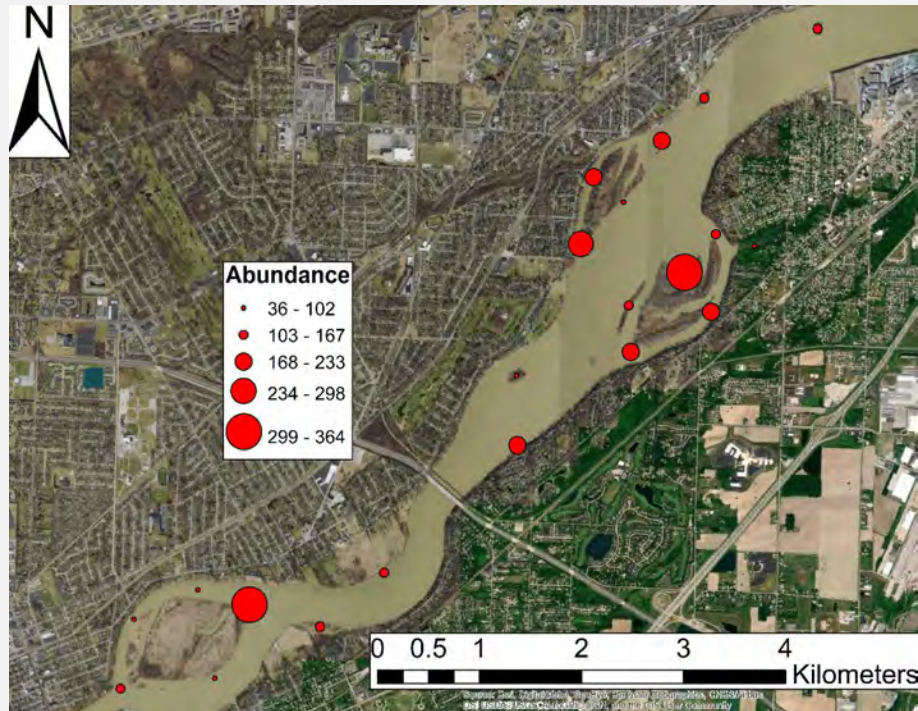
- This 15-mile stretch includes 4 sites and averages 34% of target (range: 17%-41%)
- 50% of target must be remedied directly for state AOC program



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UT/BGSU BIOLOGICAL EVALUATIONS



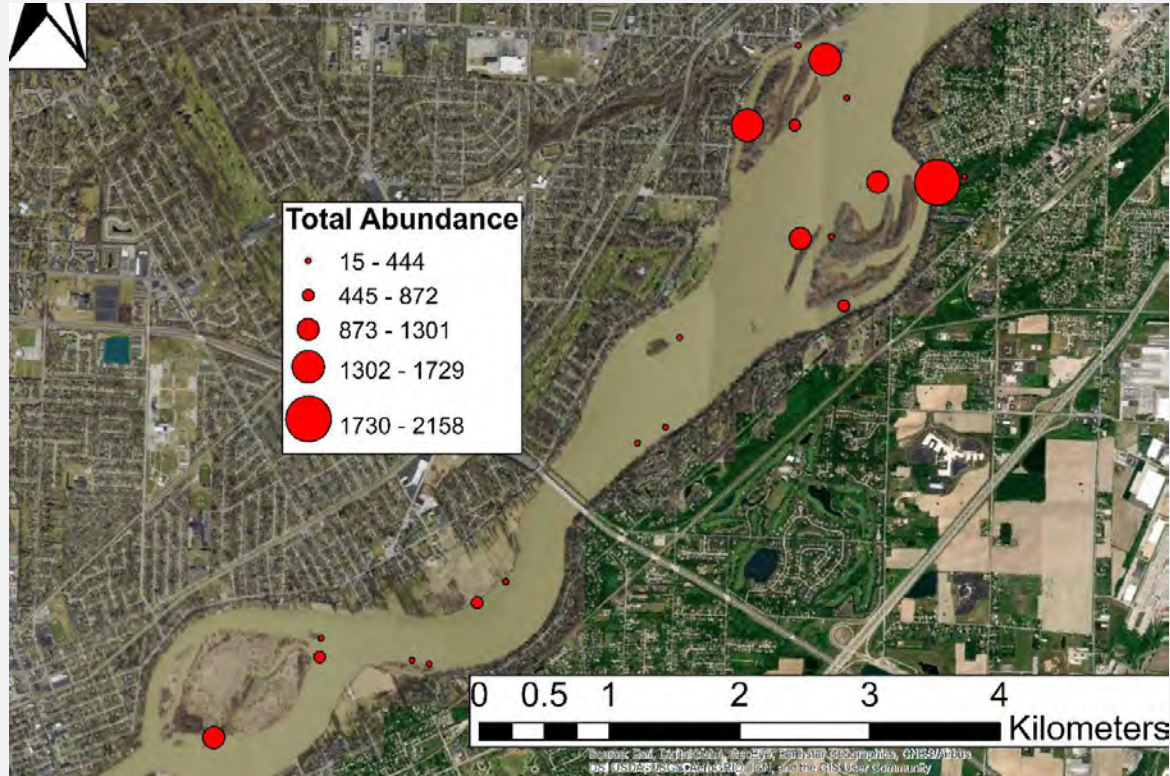
Fish (Trawling & Electrofishing)



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UT/BGSU BIOLOGICAL EVALUATIONS



Benthic Invertebrates



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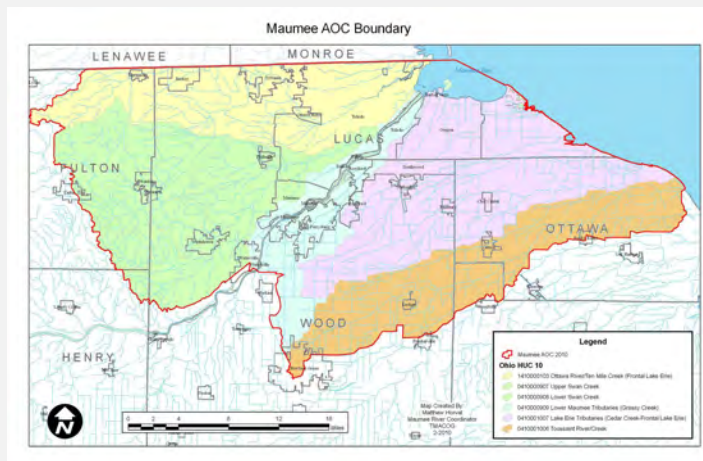


MAUMEE AOC ADVISORY COMMITTEE

- This portion of the Maumee River is within the Maumee Area of Concern (AOC)
 - AOCs were designated throughout the Great Lakes to correct and remove biological or chemical issues, also known as beneficial use impairments (BUIs)
 - A local group, the Maumee AOC Advisory Committee, is working to restore fishable and swimmable waters
 - Ohio EPA coordinates work and teams with federal, state and local partners
 - Partners for Clean Streams is the local facilitating organization



www.maumeeaoc.org



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