

Examples of Nature-Based Solutions in Ohio

Regional Approaches – Projects Education and Training

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Great Lakes Engineering with Nature
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Nature-Based Solutions - Ohio

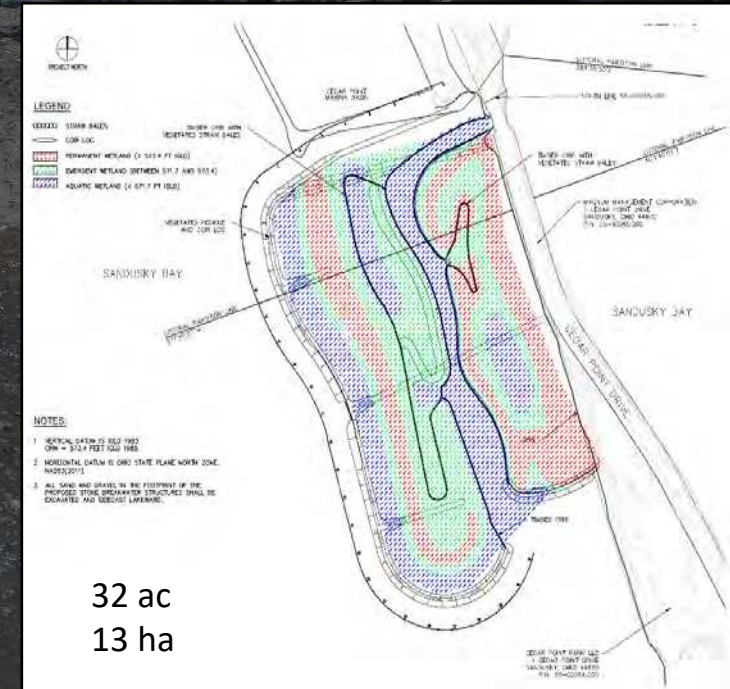
- Suitable for more protected areas (harbors, embayments)
- Lower implementation/construction costs
- Higher long-term monitoring and maintenance costs
- Innovative designs that enhance coastal resiliency, restore ecological function and provide habitat and water quality benefits
- Regulatory challenges – existing regulations are not written for adaptive nature-based projects



Sandusky Bay Initiative - Cedar Point Causeway Wetland



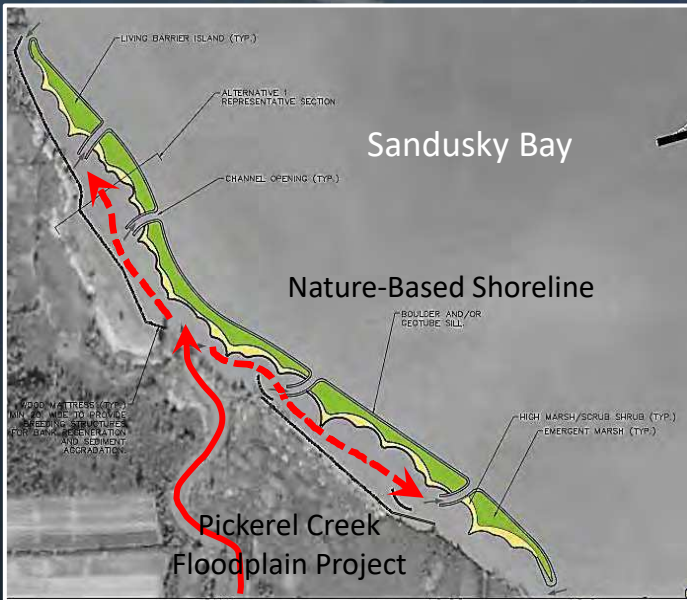
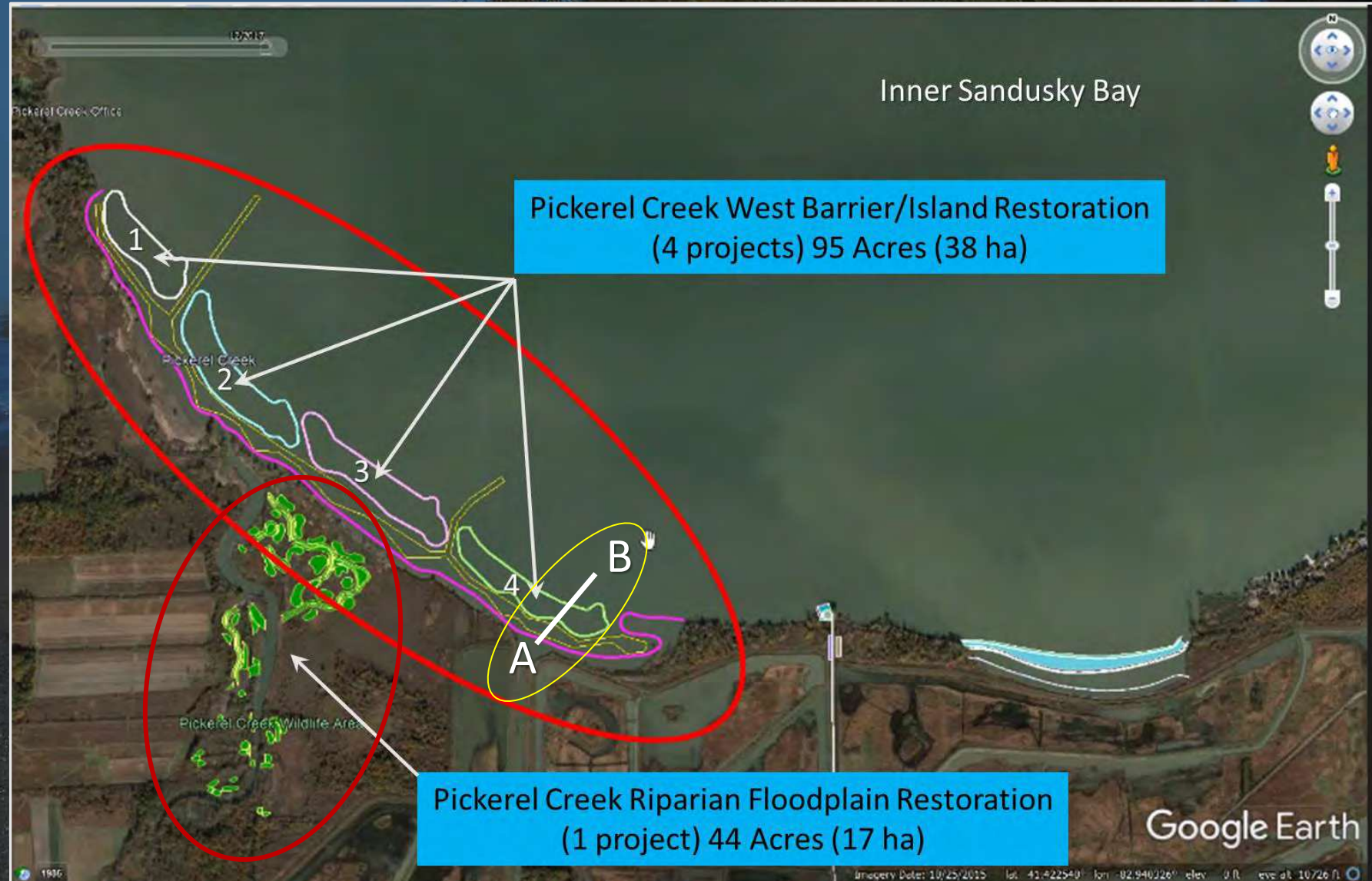
- 32 Ac (13 ha) Beneficial Use Dredge Material
- 140,000 cubic yards (105,000 m³) per Cycle
- Fish & Wildlife Habitat, Water Quality
- Nature-Based Retaining Structure
- GLRI-Funded Dredge Material Placement



Pickrel Creek Barrier Island Wetland/Habitat

- Coastal Resiliency
- Habitat Restoration
- Enhance connectivity & nutrient assimilation
- Habitat Diversity

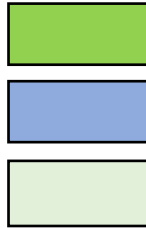
Nature-Based Solutions – H2Ohio Investments



Pickrel Creek West Barrier Wetland Project

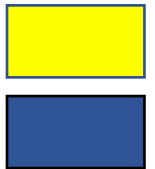
Wetland Habitat Restoration

- High Marsh/Scrub
- Emergent Wetland
- Shallow & Deep SAV

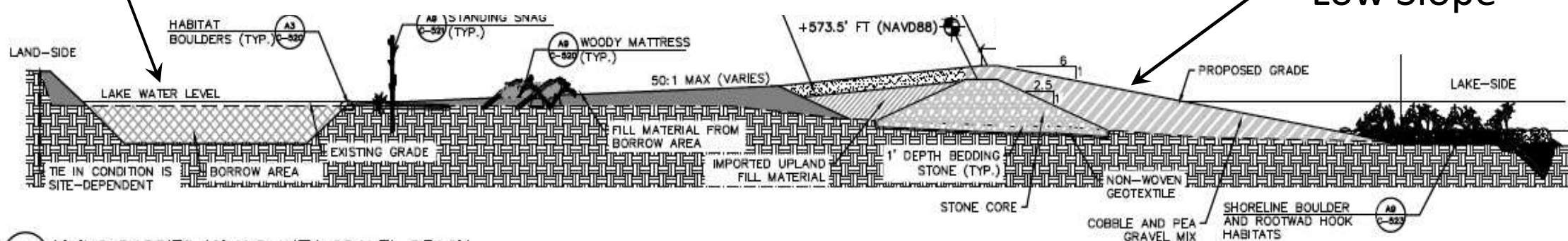


Fish & Wildlife Habitat Restoration

- Shoreline Cobble/Root Wads
- Breeding Marsh Bird
- Fish Spawning and Nursery



A Excavated Channel



A3 LIVING BARRIER ISLAND WITH GRAVEL BEACH
C-321 SECTION VIEW

NOT TO SCALE

Ohio Nature-Based Shoreline Certification Program

Need: Encourage the use of nature-based shore protection and restoration techniques along Ohio's Lake Erie Coast

Solution: Development & Implementation of Certification Program

- Lead: Ohio Coastal Management Program and Old Woman Creek National Estuarine Research Reserve
- Consultants: KS Associates and GEI
- Partners: ODNR Division of Natural Areas and Preserves, various stakeholders



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CASE STUDIES

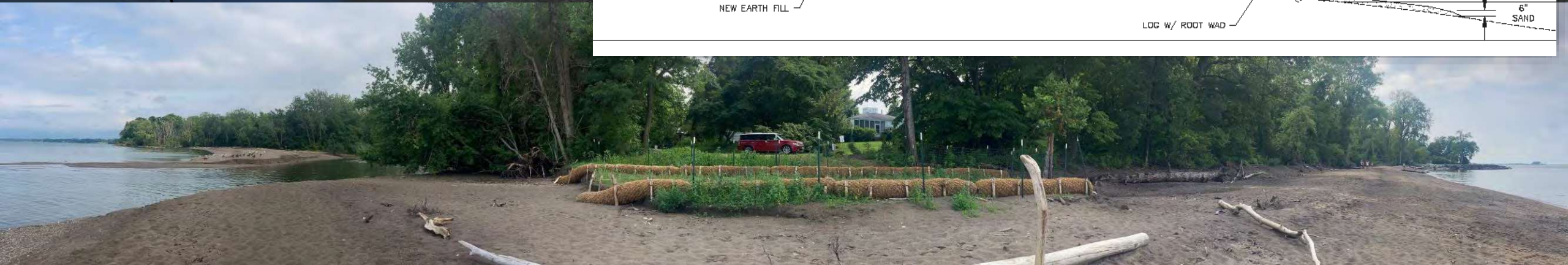
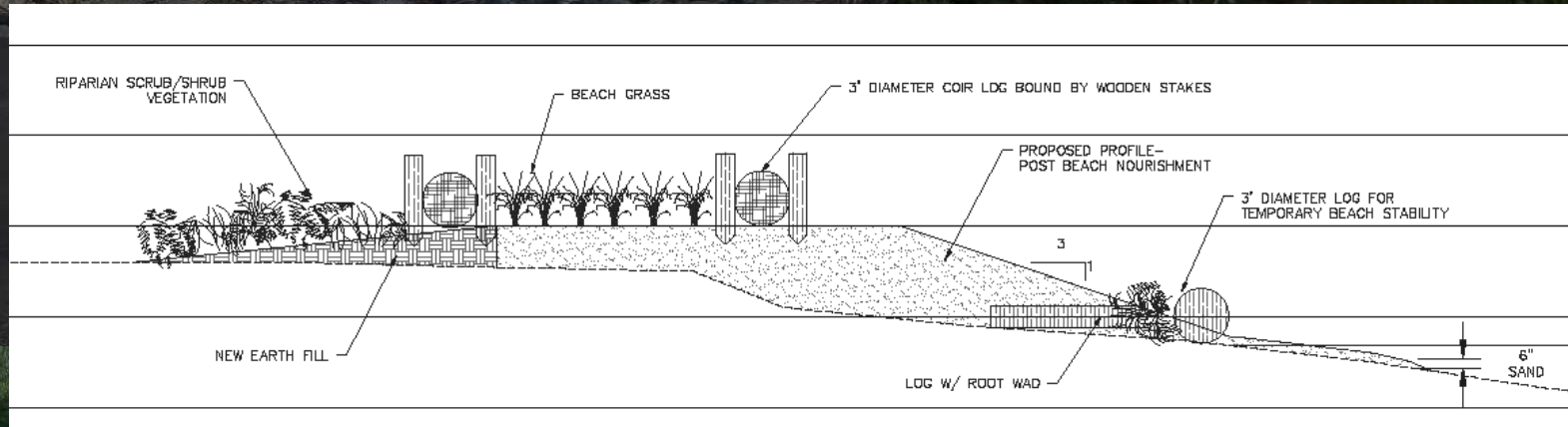
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ADDITIONAL RESOURCES
NATURE-BASED SHORELINE MONITORING CHECKLIST

Old Woman Creek Nature-Based Shoreline

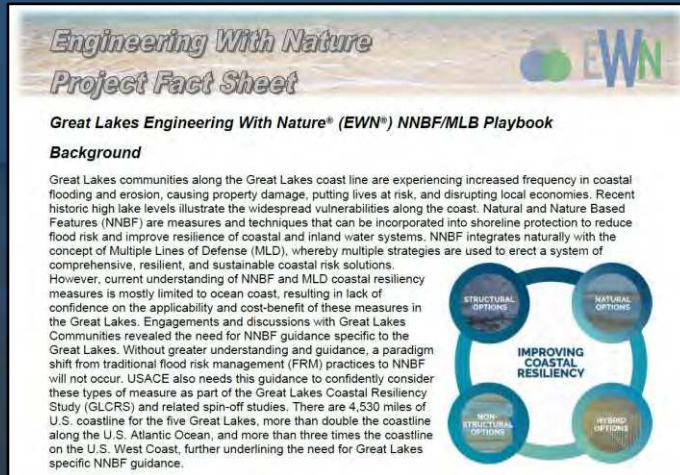
- 119 LF of shoreline
- 450 cubic yards of beach nourishment
- Coir logs, tree logs with root wads, 3-ft diameter tree logs,
- Native plantings (scrub/shrub vegetation and beach grasses)



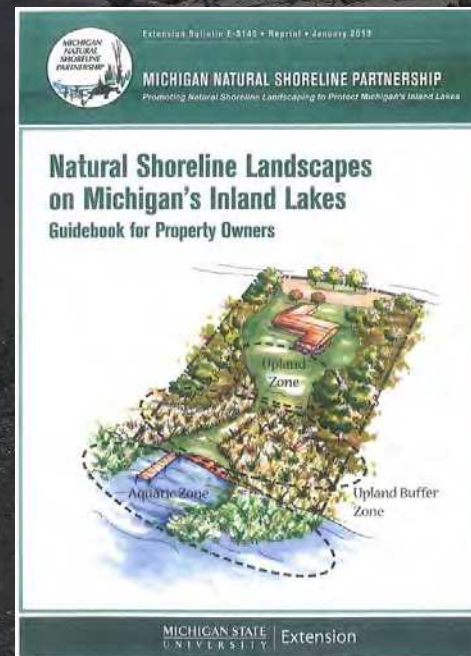
Nature-Based Shoreline Guidance Materials

USACE ERDC EWN Playbook
January 24-25, 2023

ODNR Office of Coastal Management
Nature-Based Design Certification Program



Michigan Natural Shoreline Partnership



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Questions and Discussion?

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