



## Improving the Health of the Western Lake Erie Coastal Zone

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# Western Lake Erie - Degrading Ecosystem



- Aquatic Environment
  - Dead zones
  - High nutrient concentrations
- Coastal Ecosystem
  - Impaired wetlands, uplands, migratory stopover sites, fish passages
- Conservation Efforts Ongoing by other Stakeholders
- How does MDOT plan projects in this watershed and address these issues?

# Unique Opportunity for MDOT

- I-75: A Gateway into Michigan
- Western Lake Erie Coast
- Partnering and stakeholder input
- Selected for a SHRP2 Pilot project



# Goal of the Project

- To develop and implement a Collaboratively-based Landscape Scale Conservation Plan that facilitates rebuilding the I-75 Corridor while maximizing conservation and restoration outcomes in the region.



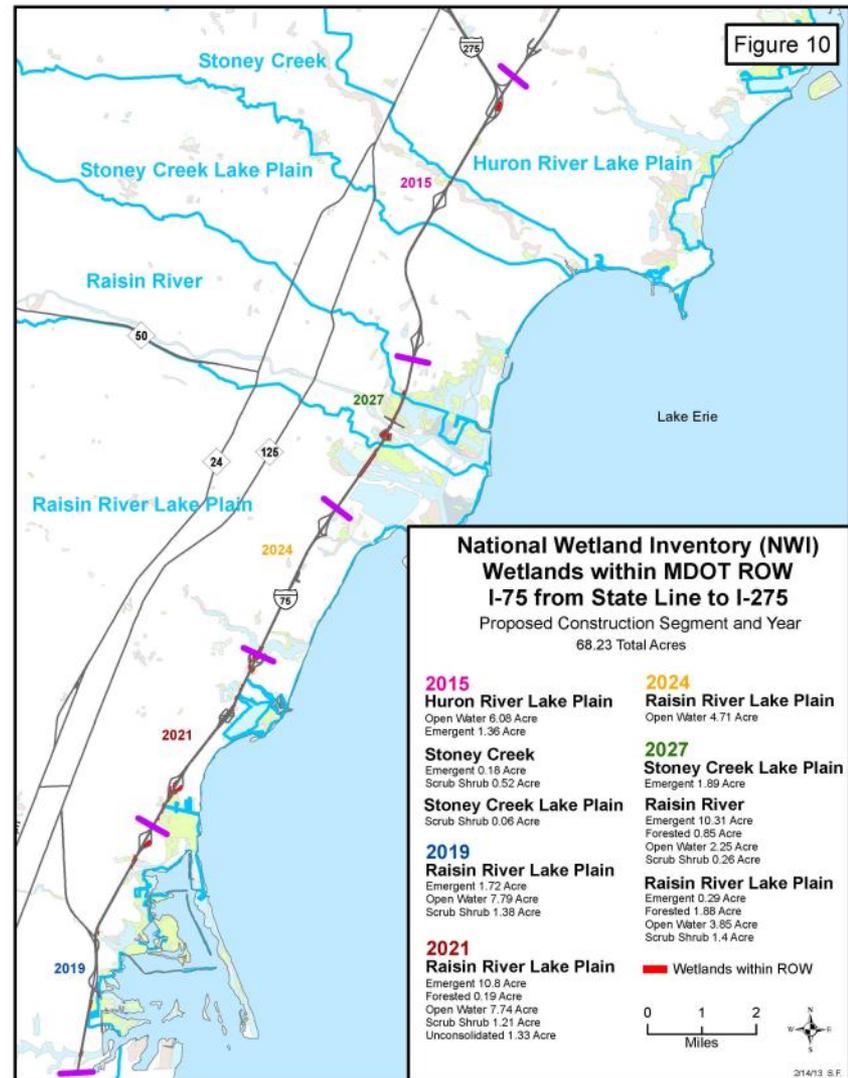
# Expectations for Project Success

- Natural resource objectives for Project clearly defined
- Balanced solution addressing natural resource and transportation needs
- Long term strategy with resource agency consensus
- Transparent process that includes existing stakeholders with natural resource concerns
- Leverage existing tools and materials from stakeholders to drive cost-effective process for project



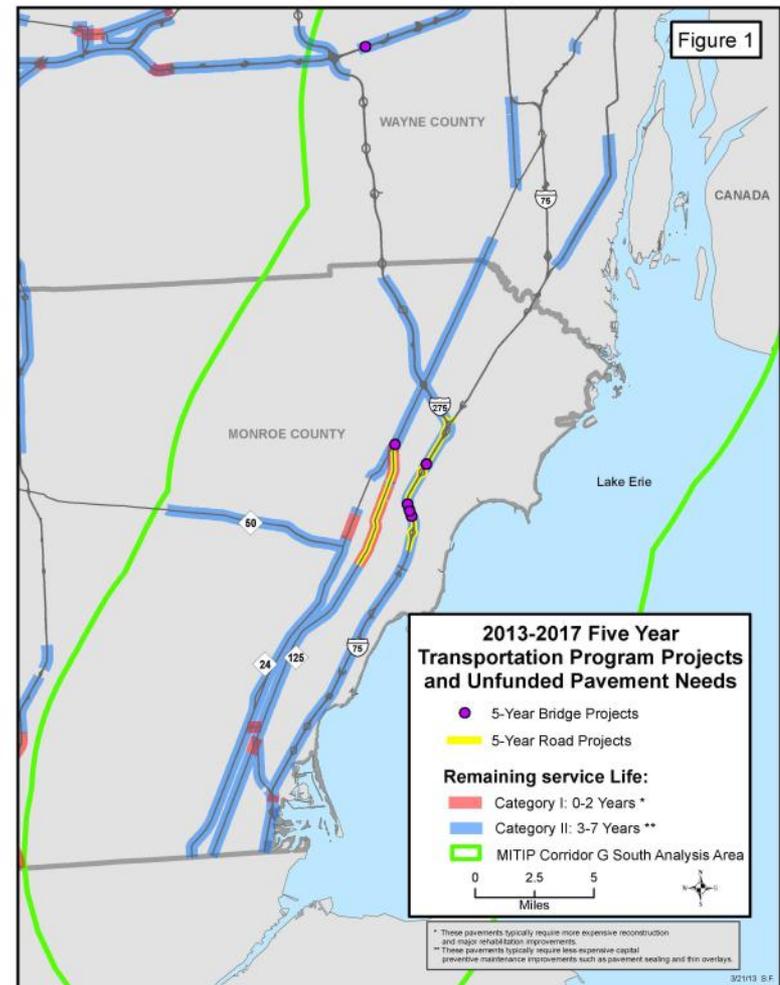
# I-75 Corridor

- \$500 million project
- Total reconstruction
- 5 phases
- Environmental Concerns
  - Wetlands
  - Threatened and Endangered Species
  - Water quality



# Ecosystem Based Planning

- 2006 Eco-Logical Approach
  - 6 Federal Agencies
  - Time Savings
  - Maximize environmental benefits
  - Wetland banking
  - Leads to the Integrated Ecological Framework or IEF





# SHRP2 Implementation Pilot Project

- Set up an Integrated Ecosystem Framework (IEF)
- Core Team:
  - MDOT – Project Lead
  - MNFI – Facilitate Conservation Planning
  - SEMCOG – Outreach, communication, ownership
- Technical Advisory Committee (MDOT+ SEMCOG + FHWA + Federal Resource Agencies + State Resource Agencies+ Nature Conservancy + Monroe County)
- Stakeholder Outreach

# Value to MDOT

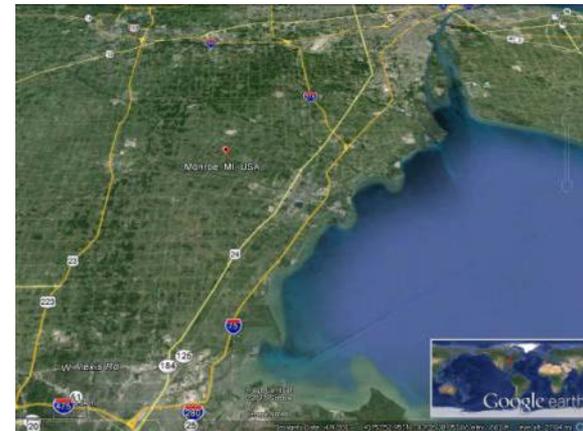
## IEF will:

- Identify conservation priorities to guide future mitigation
- Meld transportation and conservation planning
- Get early buy-in from key national, state and local agencies
- Streamline permitting process



# Proposed Role of TAC

- Define project scope and ID conservation priorities
- Identify key stakeholders
- Provide data and information
- Expertise
- Review all materials and suggest changes
- Approve the final product
- Facilitate implementation by serving as liaison
- Make decisions





# Overview of the IEF Process

- IEF = Integrated Ecological Framework
- Step-by-step, peer-reviewed, science-based process that guides transportation and resource specialists in the integration of transportation and ecological decision making.
- The IEF responds to two critical needs:
  1. Identify potential impacts early in the planning process
  2. Assure that mitigation provides effective, measurable, and high-quality environmental outcomes



# Integrated Ecological Framework (IEF)

## F O C U S

Step 1: Build and Strengthen Collaborative Partnerships

Step 2: Characterize resource status; Integrate cons. plans

Step 3: Create Regional Ecosystem Framework

Step 4: Assess Land Use and Transportation Effects

Step 5: Establish and Prioritize Ecological Actions

Step 6: Develop Crediting Strategy

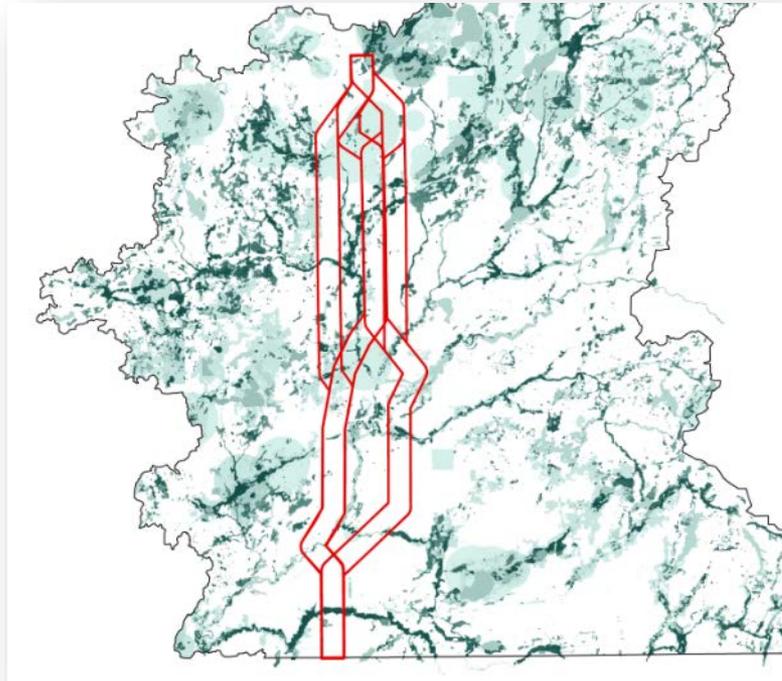
Step 7: Develop Programmatic Consultation, BO or Permits

Step 8: Implement Agreements and Adaptive Management

Step 9: Update Regional Plan/Ecosystem Framework

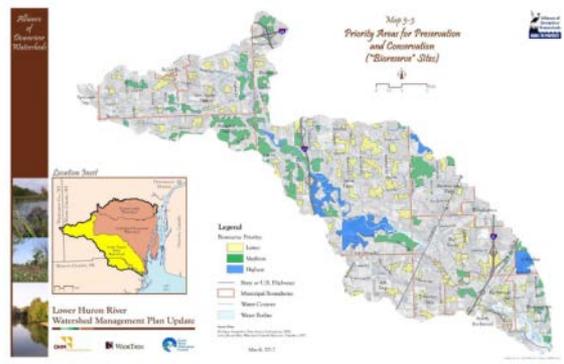
# Tools to Facilitate IEF (Steps 1-5)

- Weight conservation values
- Model ecological condition
- Assess cumulative impacts
- Create conservation solutions



# Resources to Inform IEF

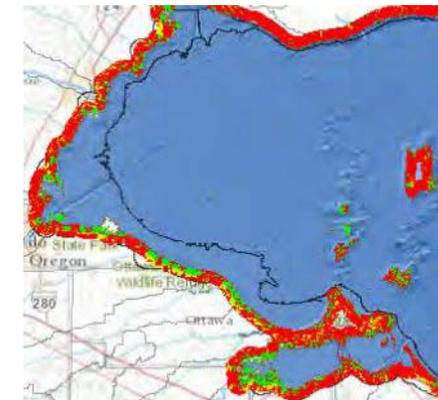
- Existing Cons. Plans



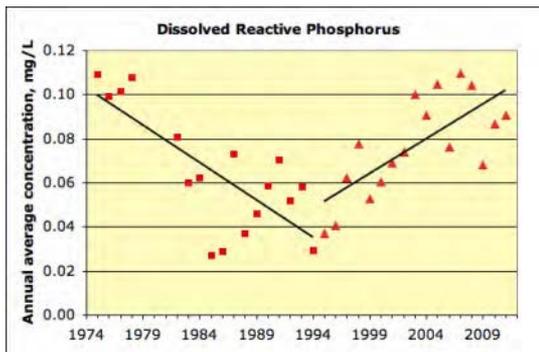
## Data Layers



## Models



## Research

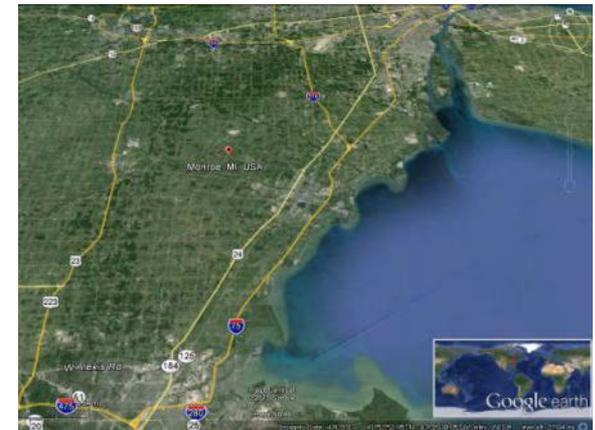


## Experts



# Final Products

- Biodiversity Conservation Strategy (targets, threats, actions, goals, obj's)
- Regional Conservation Priority Map
- Measured impacts from I-75 project
- Identified mitigation opportunities
- Mitigation agreements
- Western Lake Erie IEF Website





# Benefits of Eco-Logical to I-75



- Relationship improvements with agencies and stakeholders, already benefitting other projects
- Approach to project design also benefits natural resources
- Cost-effective approach in applying existing tools and materials to project study
- Collaborative approach by multiple agencies recognized by public