# Integration of Existing EPA Authorities and New Restoration Efforts to Accelerate Recovery of Areas of Concern in the Great Lakes Basin

T. Kevin O'Donnell, Heather Williams, Karen Rodriguez, Marc Tuchman, John Perrecone, and David Cowgill

EPA-Great Lakes National Program Office Chicago, IL

2011 National Conference on Ecosystem Restoration August 4, 2011











#### **Presentation Outline**

Great Lakes Water Quality Agreement

Areas of Concern (AOCs)

Great Lakes Restoration Initiative (GLRI)

 Integrating EPA Programs to Accelerate Recovery of Sheboygan River AOC





# 1972 Great Lakes Water Quality Agreement

- Binational commitment to meet water quality objectives
  - Phosphorus
  - Toxic Chemicals
  - Wastewater treatment



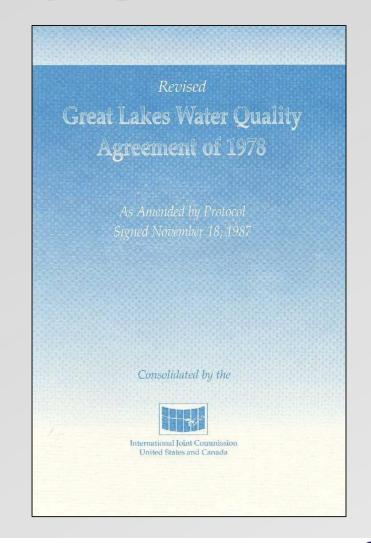




#### 1987 Amending Protocol to Great Lakes Water Quality Agreement

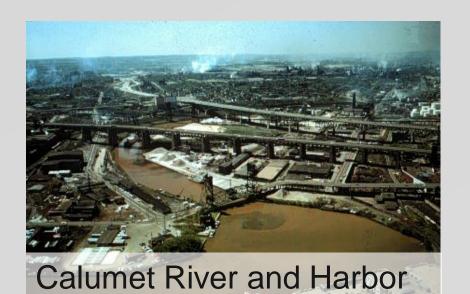
 Targeted, ecosystem approaches were formalized

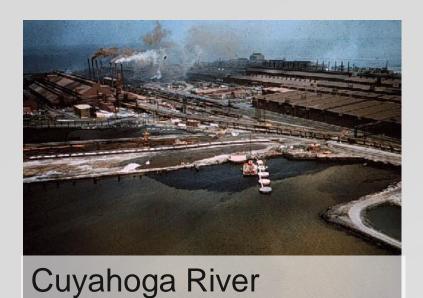
 43 Areas of Concern (AOCs) Identified

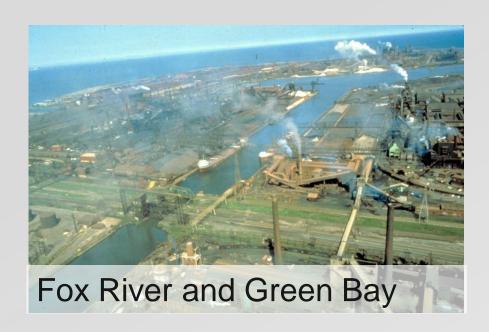














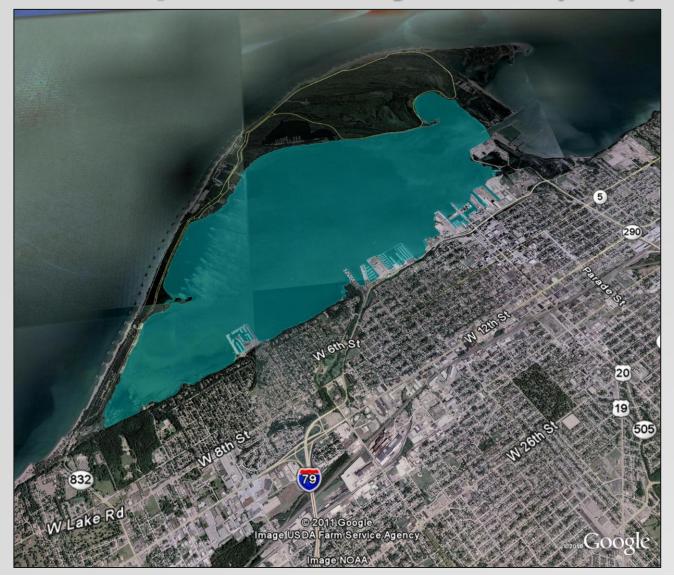








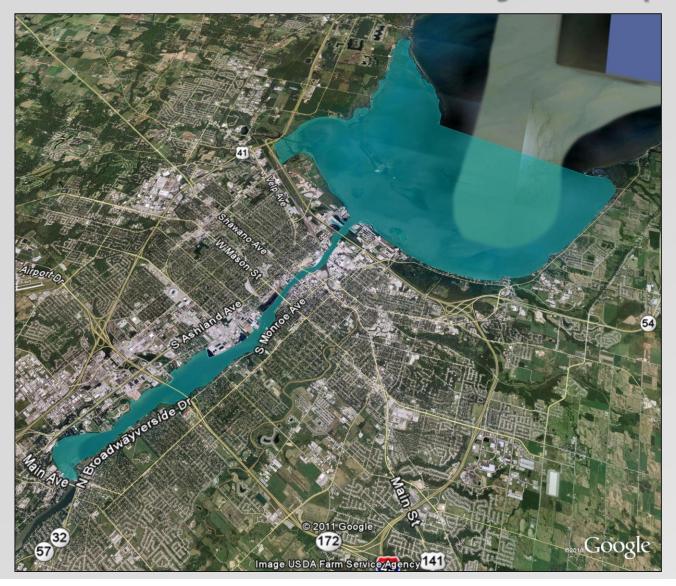
## Presque Isle Bay AOC (PA)







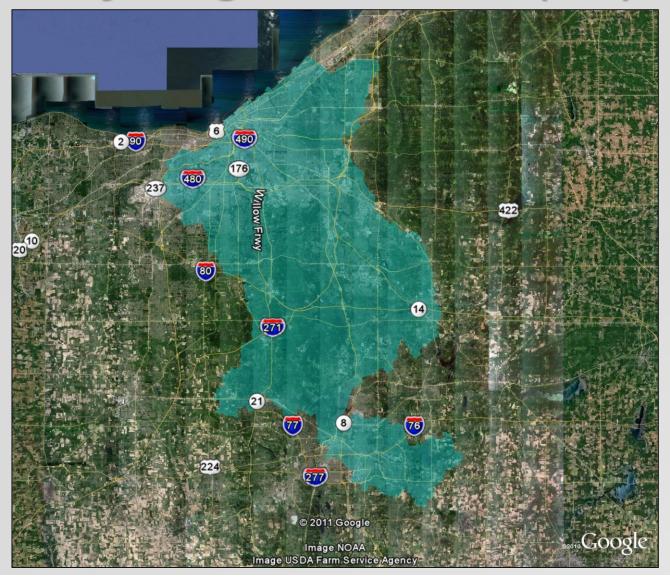
#### Lower Fox River/Green Bay AOC (WI)







## Cuyahoga River AOC (OH)







#### **Ecosystem Approach to Restoration**

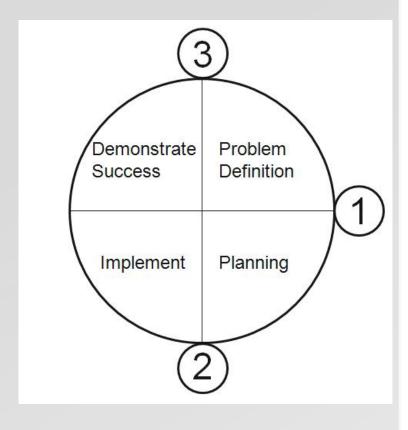
- Beneficial Use Impairments (BUIs)
  - 14 listed BUIs
    - Eutrophication or undesirable algae
    - Degradation of fish and wildlife populations
    - Drinking water restrictions
    - Restrictions on fish/wildlife consumption
    - etc.
- 30 US/Binational AOCs
  - 261 BUIs currently exist





#### Approach to AOC Cleanup/Restoration

- Plans for each AOC are developed in cooperation among:
  - Federal governments
  - States/Provinces
  - Local stakeholders/public
- Bottom-up, three step reporting process







# Federal Mechanisms Relied On for AOC Cleanup

- Natural Resources
   Damage
   Assessment
- Clean Water Act
- Superfund Action
- Resource Conservation and Recovery Act
- Great Lakes Legacy Act



1,297,000 yd<sup>3</sup> sediment remediated





# Past Challenges to AOC Cleanup/Restoration

- Lack of enforcement/regulatory authority
- Complexity of problems and solutions
- Lack of information
- Variable state and local participation
- High cost of proposed cleanup/restoration and lack of resources





#### **Great Lakes Restoration Initiative (GLRI)**

Obama
 Administration
 Initiative

- FY2010: \$475 million

- FY2011: \$300 million























FY2010 - FY2014

Great Lakes Restoration Initiative **Action Plan** 



February 21, 2010

White House Council on Environmental Quality
U.S. Department of Agriculture
U.S. Department of Commerce
U.S. Department of Hould and Human Services
U.S. Department of Homeland Security
U.S. Department of Housing and Urban Development
U.S. Department of State
U.S. Department of the Army
U.S. Department of the Interior
U.S. Department of Transportation
U.S. Environmental Protection Agency





#### **GLRI Measures of Progress**

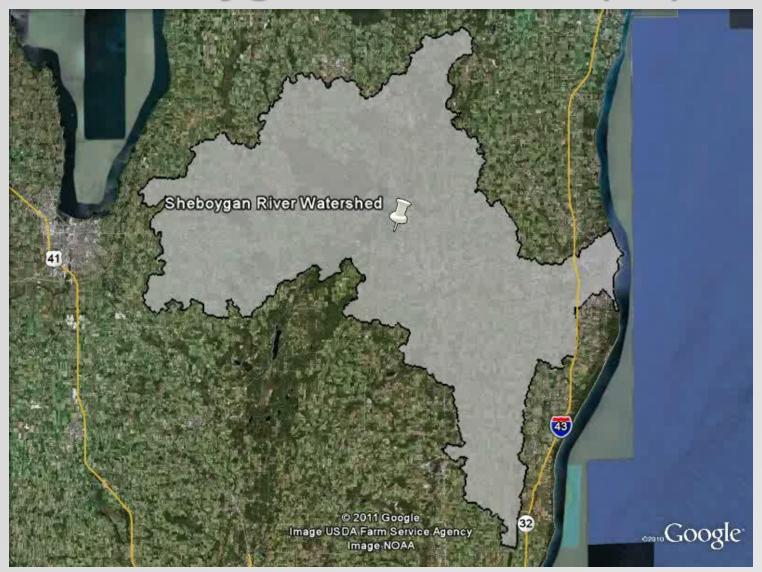
28 measures of progress in GLRI action plan

Measure	Baseline/ Universe	2010 Target	2011 Target	2012 Target	2013 Target	2014 Cumulative Target
1. Number of AOCs where all management actions necessary for delisting have been implemented (cumulative).	Baseline: 1 AOC Universe: 31 AOCs	1 AOC (no change)	1AOC	3AOCs	4 AOCs	5 AOCs





## Sheboygan River AOC (WI)



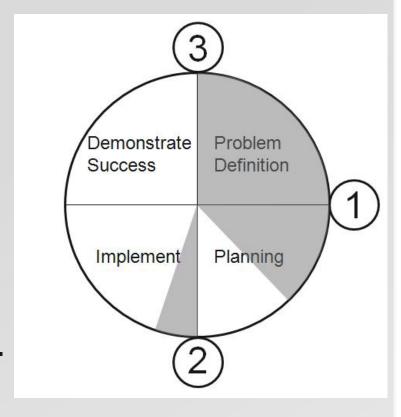




### Sheboygan River AOC Background

9 BUIs identified in 1987

- EPA Superfund sediment cleanup underway
- Interest in Legacy Act
- AOC assessment in 2010-2011







# **Sheboygan River AOC Technical Advisory Committee**











#### **Planning for Habitat Restoration**

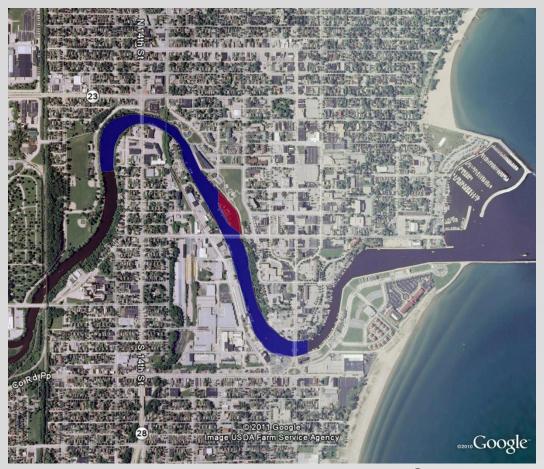
- Prioritize projects based on:
  - Contribution to BUI removal
  - Available land and willing partners
  - Ability to implement projects in short term
  - Proximity to sediment cleanup or recent assessment







#### **Contaminated Sediment Removal**



Superfund Action: 81,000 yd<sup>3</sup>





#### **Contaminated Sediment Removal**



- Superfund Action: 81,000 yd<sup>3</sup>
- Legacy Act: 200,000 yd<sup>3</sup>





#### **Contaminated Sediment Removal**

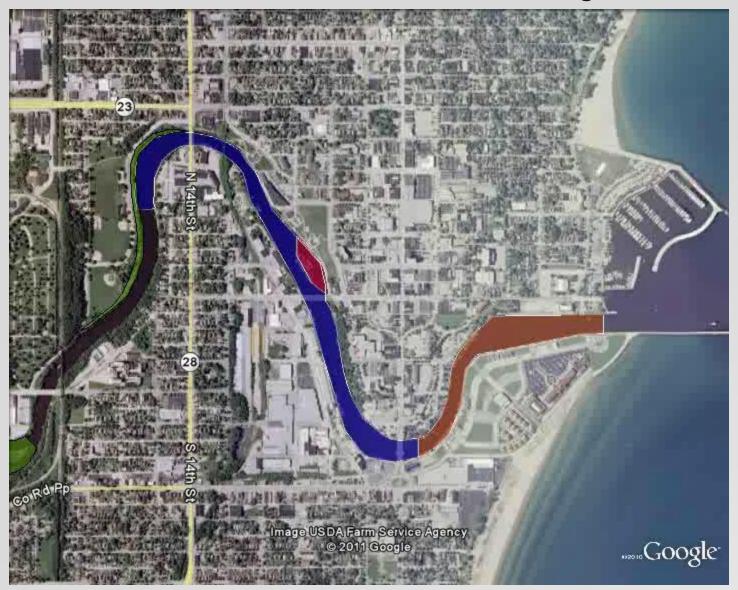


- Superfund Action: 81,000 yd<sup>3</sup>
- Legacy Act: 200,000 yd<sup>3</sup>
- USACE Dredging: 170,000 yd<sup>3</sup>





#### **Habitat Restoration Projects**

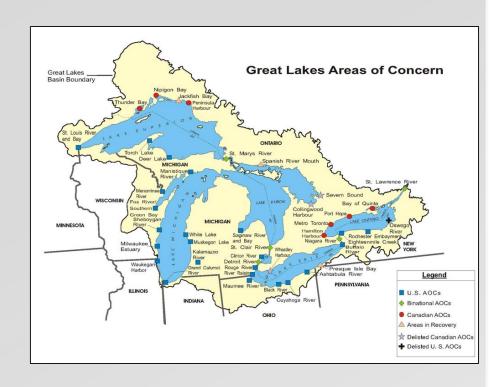






## Great Lakes AOC Cleanup/Restoration Considerations

- Superfund is a regulatory approach to site cleanup
- Legacy Act is a partnership approach to AOC cleanup
- Legacy Act requires non-federal match

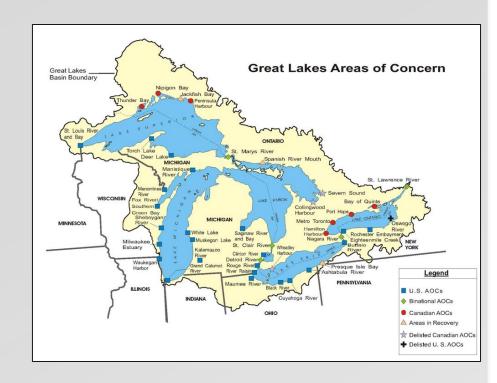






# Great Lakes AOC Cleanup/Restoration Considerations

- GLRI provides resources now to address AOC restoration
- Stakeholders need to become comfortable with an accelerated pace



Life after AOC delisting?





### **Questions?**

Contact:

T. Kevin O'Donnell

**EPA-Great Lakes National Program Office** 

Chicago, IL

Phone: 312-886-0813

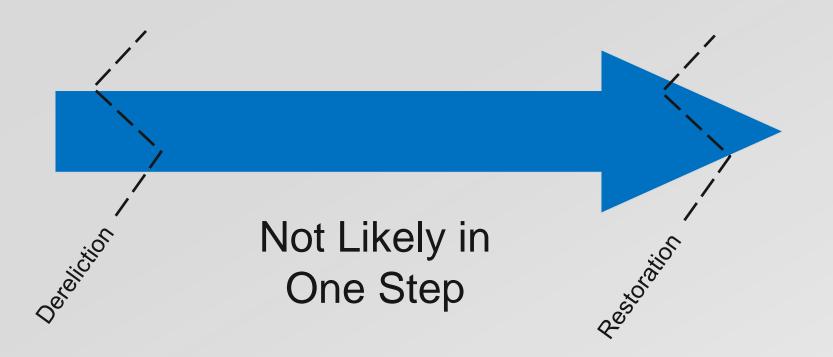
Email: odonnell.thomas@epa.gov





## Possible for the Sheboygan River?

Degraded State Natural/ Semi-Natural State







## Planning for the Sheboygan River

