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

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First international agreement to restore and protect a large ecosystem across an international border.
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
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 yd³ 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
GLRI Measures of Progress

- 28 measures of progress in GLRI action plan

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline/Universe</th>
<th>2010 Target</th>
<th>2011 Target</th>
<th>2012 Target</th>
<th>2013 Target</th>
<th>2014 Cumulative Target</th>
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<tbody>
<tr>
<td>1. Number of AOCs where all management actions necessary for delisting have been implemented (cumulative).</td>
<td>Baseline: 1 AOC Universe: 31 AOCs</td>
<td>1 AOC (no change)</td>
<td>1AOC</td>
<td>3AOCs</td>
<td>4 AOCs</td>
<td>5 AOCs</td>
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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
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$^3$
Contaminated Sediment Removal

- Superfund Action: 81,000 yd³
- Legacy Act: 200,000 yd³
Contaminated Sediment Removal

- Superfund Action: 81,000 yd$^3$
- Legacy Act: 200,000 yd$^3$
- USACE Dredging: 170,000 yd$^3$
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?

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Possible for the Sheboygan River?

Degraded State

Natural/Semi-Natural State

Not Likely in One Step

Dereliction

Restoration
Planning for the Sheboygan River

Degraded State

- Remove BUIs & Delist AOC
- Improving Fish/Wildlife
- Best Possible Conditions
- Conservation

Tier 3 Projects
Tier 2 Projects
Tier 1 Projects
Dereliction