The Western Lake Huron Basin (WLHB) 905b Watershed Reconnaissance Study

What We’ll Cover

- Overview of the WLHB watershed reconnaissance study
  - Team
  - Geographic scope
  - Purpose
  - Study tasks and report contents
- How the process works
- Example projects and outcomes

What the Corps Needs to Conduct the WLHB Study

- Authorization
- Appropriation
- Cost-share partner(s)

Project Team

US Army Corps of Engineers Detroit District
Project Manager – Jeffrey Follett
Watershed Planner – Adam Fox

Tetra Tech
(Public Outreach and Technical Support)

Western Lake Huron Basin Stakeholders
WLHB Project Area

- 15 coastal counties
- Saginaw River/Bay AOC
- St. Marys River AOC
- Heavily forested
- Sparsely populated

WLHB Watershed Reconnaissance Study Purpose

- Create a “wish list” of projects that fall into organizing framework
- Determine interest in proceeding to Feasibility Studies with eligible non-federal cost-share partners

WLHB Watershed Reconnaissance Study Tasks

- Determine water resource problem(s)
- Define the Federal Interest (FI)
- Prepare Project Management Plan (PMP) if FI is established
- Assess the level of interest and support from non-Federal entities and sign a Feasibility Cost Sharing Agreement (FCSA)

WLHB Watershed Reconnaissance Study Contents

- General identification of watershed problems, potential partners, proposed projects
- Outline Tasks for Feasibility Study
- Estimated Schedule of Feasibility Study
What were we looking for?

Categories:
1. Toxics and AOCs:
2. Invasive Species:
3. Nearshore Health and Nonpoint Source Pollution:
4. Ecosystem Restoration:
5. Planning:
6. Navigation:
7. Flooding

Significant Resource

Significant environmental resources and attributes can be:
- institutionally,
- publicly, or
- technically recognized as important to people and should be taken into account in decision-making.

Potential Non-Federal Cost Share Partners

- States
- Local governments
- Indian tribes
- Non-profit organizations (Sections 1135, 206, 204)

Non-Federal Sponsors Must Be Able To:

- Generate Revenue
- Acquire Real Estate
- Save and Hold the Government Harmless
- Maintain Project with 100% Local funds
List of Partners

Federal
- USGS
- NOAA
- F&W
- Bands

Local
- County Agencies
- LUGs - CVT
- TU
- MDEQ
- MDNR

Private Interests
- Marinas
- Consultants
- Local Businesses

State
- MDEQ
- MDNR

Non-Profits
- DU
- Watershed Councils

Education
- Universities/Colleges

Potential Solutions

- Potential Solutions for issues of Federal interest.
  - USACE interest as well as
  - Other Federal interest (e.g. think GLRI)
- Projects or a series of projects to address an issue.
- Estimate/quantify potential benefit resulting from project.

Potential Projects

- Navigation
- Flood Damage Reduction
- Ecosystem Restoration
- Shoreline or Streambank Protection
- Water Quality Enhancement
- Local Action Plans (i.e. Rain Barrels, Rain Gardens, Ordinance Changes, etc.)

Tier 1: Measures implementable under an existing Corps’ authority and likely to lead to constructed features.

<table>
<thead>
<tr>
<th>Project</th>
<th>Project Description</th>
<th>Applicability to Corps Mission Areas</th>
<th>Support GLRI Focus</th>
<th>Stakeholder Support?</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC-1</td>
<td>Saging River/Creek Watershed (Arenac County, Michigan)</td>
<td>Ecosystem restoration</td>
<td>Nearshore health and nonpoint source pollution/ Habitat restoration</td>
<td>Yes</td>
</tr>
<tr>
<td>BC-4</td>
<td>Kaskaskia River Watershed, Bay, Midland, and Gladwin Counties</td>
<td>Ecosystem restoration, Flood risk management</td>
<td>Nearshore health and nonpoint source pollution/ Habitat restoration/ Invasive species/ Sediment management</td>
<td>Yes</td>
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<tr>
<td>PA-4</td>
<td>Kalamazoo, Cass City Ecosystem Restoration Project</td>
<td>Ecosystem restoration</td>
<td>Habitat restoration/ Invasive species/ Nearshore health and nonpoint source pollution</td>
<td>Yes</td>
</tr>
<tr>
<td>TS-8</td>
<td>Spaulding Road Ecosystem Restoration, Saginaw County, Michigan</td>
<td>Ecosystem restoration, Steam bank protection</td>
<td>Habitat restoration</td>
<td>Yes</td>
</tr>
<tr>
<td>TS-8</td>
<td>Spaulding Road Ecosystem Restoration, Saginaw County, Michigan</td>
<td>Ecosystem restoration, Steam bank protection</td>
<td>Habitat restoration</td>
<td>Yes</td>
</tr>
</tbody>
</table>
### Tier 2: Measures implementable under an existing Corps’ authority which does not involve construction.

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Description</th>
<th>Applicability to Corps’ Mission Areas</th>
<th>Support GRLI Focus Areas?</th>
<th>Stakeholder Support?</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC – 2</td>
<td>Septic System Revolving fund</td>
<td>Supports ecosystem protection and restoration</td>
<td>Nearshore health and nonpoint source pollution/ Habitat protection and restoration</td>
<td>Yes</td>
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<tr>
<td>BC – 7</td>
<td>Phragmites management</td>
<td>Supports ecosystem protection and restoration</td>
<td>Invasive species</td>
<td>Yes</td>
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<tr>
<td>BC – 14</td>
<td>Saginaw River/Bay Watershed Area of Concern (ARC) Technical Report Findings Synthesis</td>
<td>Supports ecosystem protection and restoration</td>
<td>Nearshore health and nonpoint source pollution/ Habitat protection and restoration</td>
<td>Yes</td>
</tr>
<tr>
<td>Mid-1</td>
<td>Culvert design study</td>
<td>Supports ecosystem restoration</td>
<td>Habitat protection and restoration</td>
<td>Yes</td>
</tr>
<tr>
<td>Mid-2</td>
<td>Salt River Hydrologic study</td>
<td>Supports ecosystem protection and restoration</td>
<td>Nearshore health and nonpoint source pollution/ Habitat protection and restoration</td>
<td>Yes</td>
</tr>
<tr>
<td>Mid-3</td>
<td>Great Lakes Ecosystem</td>
<td>Supports flood risk management</td>
<td>Invasive species</td>
<td>Not directly</td>
</tr>
<tr>
<td>PA-3</td>
<td>Small port dredging</td>
<td>Supports navigation/ecosystem restoration</td>
<td>Nearshore health and nonpoint source pollution/ Habitat protection and restoration</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Tier 3: Measures screened from further consideration under the WLHB Study / Implementable by other organizations.

<table>
<thead>
<tr>
<th>Project #</th>
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<th>Applicability to Corps’ Mission Areas</th>
<th>Support GRLI Focus Areas?</th>
<th>Stakeholder Support?</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC – 3</td>
<td>Saginaw Bay/Channel from removal</td>
<td>Contaminated sediments</td>
<td>Nearshore health and nonpoint source pollution</td>
<td>Yes</td>
</tr>
<tr>
<td>BC – 8</td>
<td>Fish passage/dam removal – Saginaw River watershed</td>
<td>Ecosystem restoration</td>
<td>Habitat protection</td>
<td>Yes</td>
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<tr>
<td>BC – 9</td>
<td>Wetland restoration – Saginaw River and tributaries</td>
<td>Ecosystem restoration</td>
<td>Habitat protection</td>
<td>Yes</td>
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<tr>
<td>BC – 11</td>
<td>Bacteria source assessment and control</td>
<td>None</td>
<td>Nearshore health and nonpoint source pollution</td>
<td>Yes</td>
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<tr>
<td>BC – 12</td>
<td>Restore Saginaw Bay public access</td>
<td>None</td>
<td>Not directly</td>
<td>Yes</td>
</tr>
<tr>
<td>BC – 13</td>
<td>General bay study opportunities</td>
<td>None</td>
<td>Nearshore health and nonpoint source pollution/ Habitat restoration</td>
<td>Yes</td>
</tr>
<tr>
<td>PA-3</td>
<td>E. coli source management</td>
<td>None</td>
<td>Nearshore health and nonpoint source pollution/ Habitat restoration</td>
<td>Yes</td>
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<tr>
<td>PA-4</td>
<td>Agricultural waste</td>
<td>None</td>
<td>Nearshore health and nonpoint source pollution/ Habitat restoration</td>
<td>Yes</td>
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<tr>
<td>TS-3</td>
<td>Muck and phragmites management and removal demonstration project</td>
<td>None</td>
<td>Invasive species</td>
<td>Yes</td>
</tr>
<tr>
<td>TS – 9</td>
<td>Muck and phragmites management and removal demonstration project</td>
<td>None</td>
<td>Invasive species/ Nearshore health and nonpoint source pollution</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Questions?**