

## Toledo Harbor Dredged Material Management and Use Plan



Lake Erie Coordination and  
Synthesis Team Forum  
Bowling Green, Ohio  
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Presented by:  
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# Toledo Harbor Dredged Material Management and Use Plan

## Participants:

- Ohio Lake Erie Commission (grant lead)
- Toledo-Lucas County Port Authority (contract manager)
- Toledo Harbor Dredge Task Force
  - Toledo-Lucas County Port Authority
  - State agencies: Ohio Lake Erie Commission, Ohio EPA, Ohio DNR Office of Coastal Management, Ohio Department of Transportation, Ohio Department of Development, Ohio Sea Grant Program
  - Federal agencies: U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service, USGS Ohio Water Science Center, USDA Natural Resources Conservation Service
  - Local agencies: City of Toledo, City of Oregon, Lucas County, Metroparks of the Toledo Area
  - Stakeholders: Maritime Industry Representatives, Lake Erie Waterkeepers Association, Lake Erie Charter Boat Association, and Offices of Senator Sherrod Brown, Senator Rob Portman, Congressman Bob Latta, and Congresswoman Marcy Kaptur
- The Hull & Associates, Inc. Team

\$250,000 GLRI grant funding for technical and facilitation support  
(September 1, 2010 - May 31, 2012)

# Top 3 Accomplishments/Impacts

- Completion of first Public Workshop with Task Force members and other stakeholders where participants shared ideas for in-water, nearshore, upland, and product manufacture beneficial use of sediment

*Recognition of need to balance environment with commerce*

- Prioritization of technical criteria used to evaluate identified options gained through significant communication and information exchanged among stakeholders regarding human benefits, ecological benefits, economic benefits, feasibility, implementation costs, and environmental impacts

*Recognition of consensus of complexity and size of challenge will necessitate a combination of approaches*

- Use of a consensus-based, systematic, approach to evaluate identified alternatives (weighted matrix analysis)



Lake Erie  
Commission



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# Regional Value

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- Information exchange
- Development of a consensus model
- Technological applications to be developed
- Monitoring/characterization approaches

# Ecosystem and Management Improvements

- Turbidity/nutrient management are essential
- Relative degree of causation/contribution is secondary to methods to reduce overall impact
  - Reduction in dependency on open lake disposal
  - Reduction in sediment loading and resuspension
- Cost Control

# Public Benefits from Project

- A comprehensive sediment management solution will be developed for the Toledo Harbor that is practical, protective of human health and the environment, and acceptable to stakeholders.

## Benefits include:

- Improved water/habitat quality
- Economic benefits
- Improved recreational and commercial uses
- Safer boating access through modifications to the channel configuration
- Beneficial use of dredge material to create new products

# Economic Impact

- The Port of Toledo, Ohio serves as a critical component of the economic viability of Northwest Ohio, providing commerce to the entire Great Lakes and facilitating international commerce and commodity transportation through the St. Lawrence Seaway - annually handling approximately 11,000,000 tons of cargo, such as coal, iron ore, and grain.
- According to *The Economic Impacts of the entire Great Lakes-St. Lawrence Seaway Navigation System* (Martin Associates, 2011), in Ohio, maritime commerce on the Great Lakes-Seaway system generated over 28,000 jobs, contributed over \$5.9 billion in direct and indirect economic activity in the State of Ohio, and generated over \$580 million in federal, state, and local tax revenue.
- The implementation of a sediment management and use approach that addresses the sediment management challenges of the Toledo Harbor is essential for the Port's continued operation and to improve commercial and recreational uses of the Toledo Harbor.



# New Research Needs and Management Questions

- Need to identify, demonstrate, and enhance open lake placement technologies and stabilization of dredged material with beneficial use
- Impact of revisions to authorizations for Harbor Maintenance Fund and alternate USACE/WRDA authorization/controlling mechanisms
- Beneficial use cost/value models for structural fill, agricultural amendments, and other alternatives

# Benefits of Synthesis Effort

## Information and data sharing opportunities:

- University of Toledo – Biosolids Application
- Huron County SWCD – Sediment Reduction Project
- OEPA – P Reduction Variable Rate Technology Program
- OEPA – Comprehensive Nearshore Monitoring Program
- Buffalo State College - Nearshore and Offshore Nutrient Study