



PROJECT PURPOSE

Due to environmental concerns, many stakeholders in the western Lake Erie basin are advocating for alternatives to the current practice of open-lake placement of dredged material. The purpose of this project was to complete an evaluation of alternatives and provide recommendations for sediment management and use options.

FOR MORE INFORMATION

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TOLEDO HARBOR SEDIMENT MANAGEMENT AND USE PLAN | TOLEDO, OHIO

THE SITE

The Port of Toledo is a major Northwestern Ohio transportation center located on the Maumee River in Toledo, Ohio. Nearly 7,000 jobs are supported by cargo operations, which generate more than \$380 million in direct business revenue for the businesses dependent upon the cargo handled at the Port of Toledo.

THE CHALLENGE

More than 800,000 cubic yards of sediment must be removed from the Toledo Harbor federal navigation channel every year to maintain the federal navigation channel. All dredged material that meets federal standards is then dumped in an open lake placement area. Stakeholders are concerned about the impacts of this practice and want to see alternative sediment management strategies pursued and implemented. Remaining capacity at local Confined Disposal Facilities is limited or has been reserved for more impaired sediments.

THE PROJECT

The Ohio Lake Erie Commission, in cooperation with the Toledo-Lucas County Port Authority and the Toledo Harbor Dredge Task Force, received a Great Lakes Restoration Initiative grant to evaluate alternatives to open-lake placement and provide recommendations for sediment management and use options. Hull & Associates, Inc. (Hull) worked with the Toledo Harbor Task Force (Task Force) to identify and implement a consensus-based sediment management and use strategy that addresses the concerns of the diverse stakeholders represented by the Task Force.

Hull evaluated various in-water and upland sediment management options. Cost estimates were developed and sediment management options were ranked and prioritized using a comparative scoring analysis focusing on general physical attributes, logistics, geographic attributes, historic and projected dredging volumes, habitat areas, initial relative cost estimates, and stakeholder input on the relative importance of six major categories of technical criteria. These criteria included feasibility, ecological benefits/effects, environmental impacts/effects, human benefits/effects, economic benefits/effects, and implementation cost. The goal of the comparative scoring analysis was to complete a fair, equitable evaluation of options which can be very dissimilar.

Hull recommended a combination of options that allowed for greater flexibility with respect to feasibility, practicality, and cost. These options included wetland restoration and shoreline protection, agricultural field improvements, open-lake placement with controls, and beneficial use. When compared to a single-option solution, the combination option best balances environmental, ecological, and economic benefits and impacts while minimizing overall unit cost.

IMPORTANCE

The sediment management and use plan presents a comprehensive sediment management solution for the Toledo Harbor that is practical, protective of human health and the environment, and essential to securing implementation funding. Ultimately, the Task Force members and stakeholders must take the lead in efforts to secure funding to implement the pilot and full-scale options recommended in the plan.

RECOMMENDED NEXT STEPS

- Establish ongoing discussions with public officials, stakeholders, and legislators regarding project opportunities and associated legislation/funding needs
- Initiate pilot projects (e.g. open-lake placement with controls, agricultural field improvement)
- Pursue implementation of full-scale projects (e.g., wetland restoration, beneficial use)

