



BUFFALO DISTRICT BENEFICIAL USE OF DREDGE MATERIAL SUCCESSES & CHALLENGES



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Beneficial Use of Dredged Material Project Collaboration

- » \$25B in annual business revenues generated by the harbors
- » 130,000 jobs created or retained by the harbors
- » Total Great Lakes dredging = 3.3M cubic yards; Lake Erie alone = 1.5M
- » Ohio's 2020 ban on open-lake disposal requires development of alternatives



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Great Lakes Dredge Material Center for Information

USACE Contractor, Ryba Marine, has begun placement of dredge material into the Toledo-Lucas County Port Authority's Riverside Facility. This P4 demonstration project, funded by the Ohio Healthy Lake Erie Initiative, is aimed at helping to promote alternatives to open-lake disposal. The ultimate goal is to show the agricultural community there are benefits to using dredged material for crop growth.



Concept of finished project



Pump out of Dredge Material into Facility

Barge of Dredge Material transported to Facility

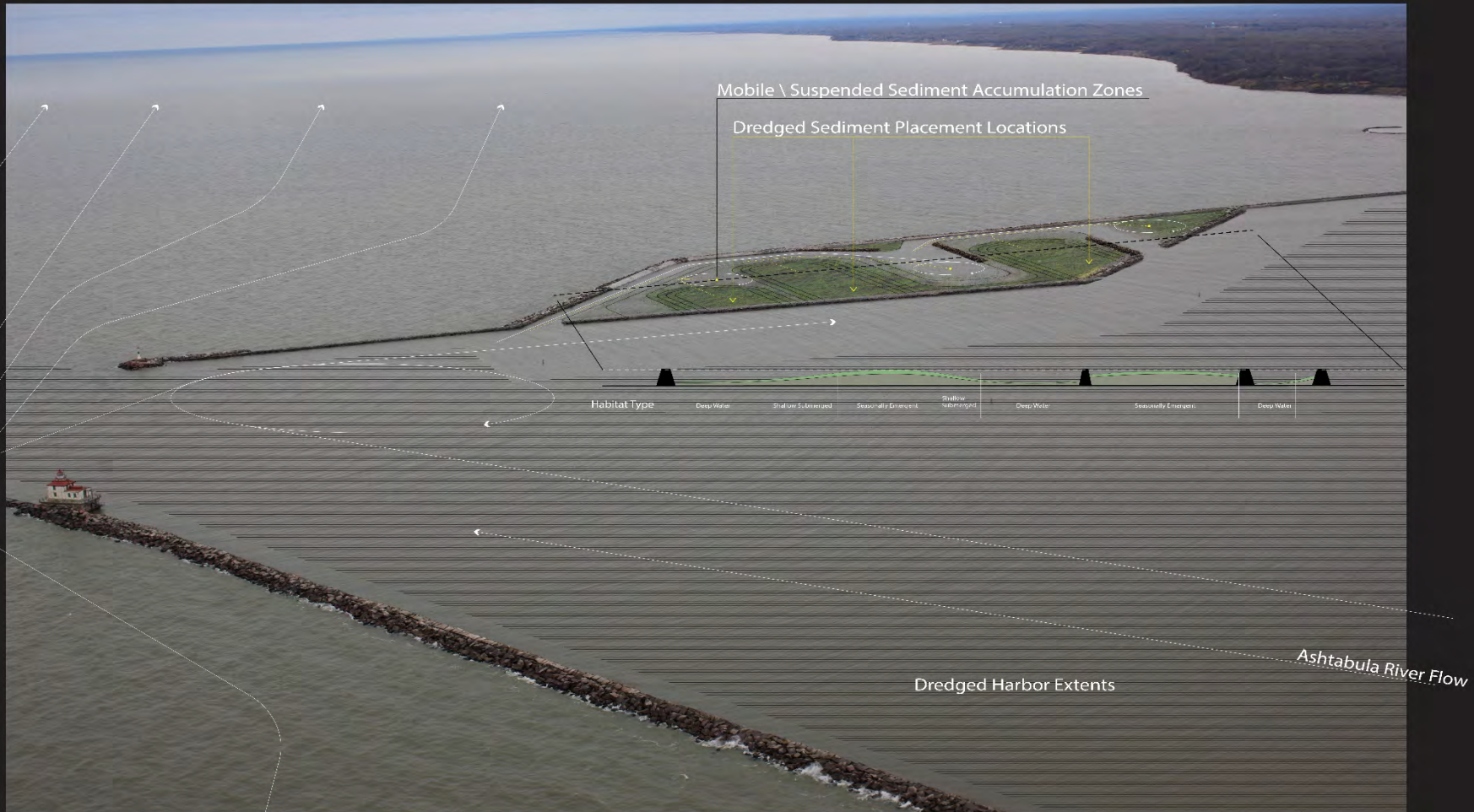


ASHTABULA, OH SECTION 204



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HEALTHY PORT FUTURES | ASHTABULA - Dynamic Sediment Management Habitat Wetland Concept | 18 Acres | ≈ 400k cy



ASHTABULA HARBOR: DREDGE MANAGEMENT

Project Type: Dredge to Habitat

Project Summary: USACE is building a wetland inside the Eastern breakwater of Ashtabula Harbor. The project involves using dredged material to achieve an optimal water depth for desired vegetation, protected by a submerged retaining structure.

Project Status: Feasibility

Local Partners:

- Ashtabula Port Authority
- Healthy Port Futures

Dredge Capacity: 400K cubic yards total

Funding Sources:

- USACE Section 204 Continuing Authorities Program
- Ohio Healthy Lake Erie Fund
- Great Lakes Protection Fund



Milestones:

- Complete feasibility study
- Secure federal funding
- Sign Project Partnering Agreement

Authorizations Required:

- Ohio EPA water quality certification
- ODNR Office of Coastal Management Program concurrence
- USACE NEPA determination

Future Projects: A bed load interceptor to reduce sedimentation of the federal channel is in the scoping stage.

Proposed Project Schedule



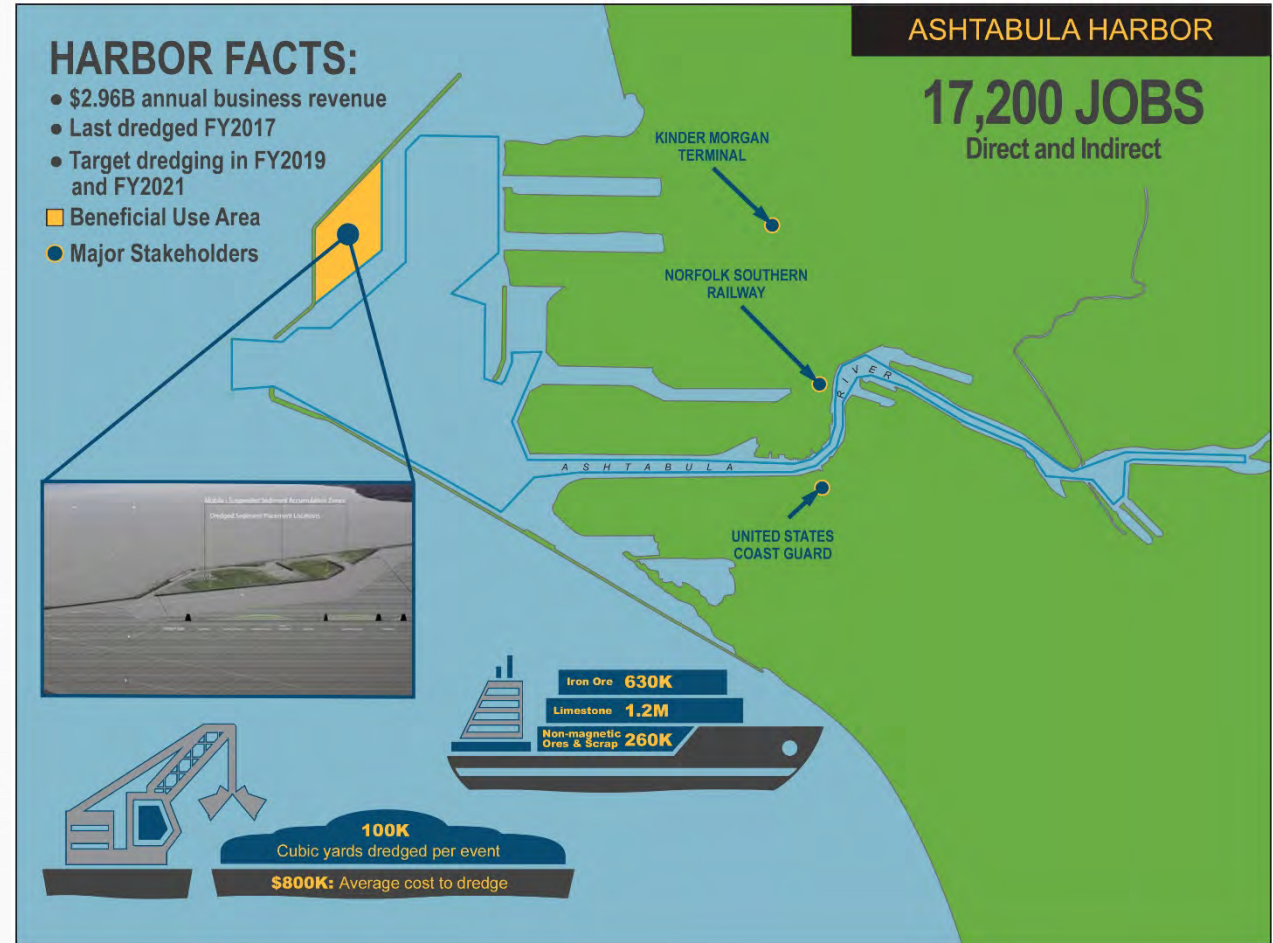
Project Cost Estimate = \$13.5M
 Federal: \$8.8 million, Ohio: \$4.7 million



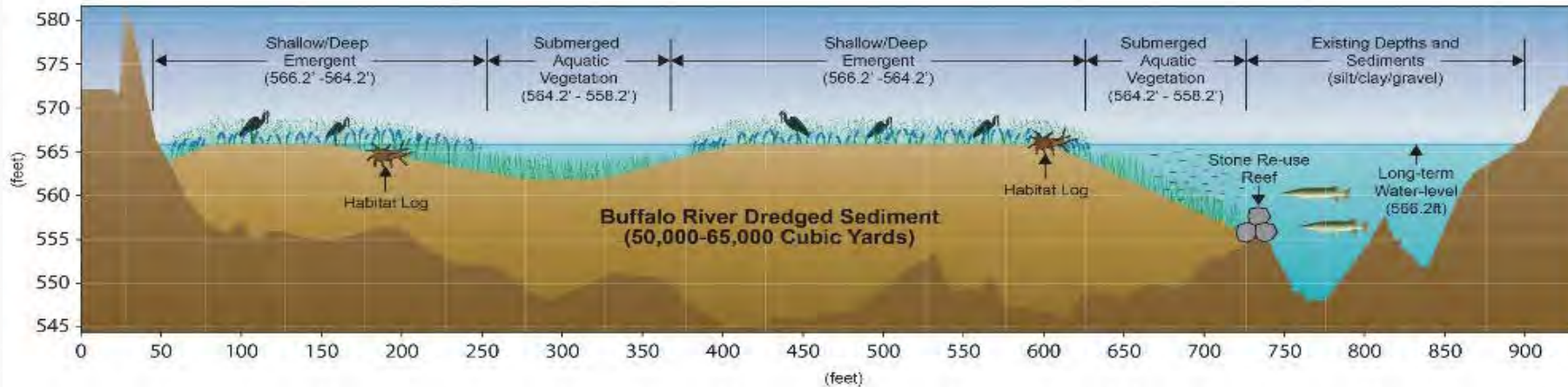
Lake Erie Commission



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HABITAT LAYOUT – HEMI-MARSH



Final Grading of the Dredged Material



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BENEFICIAL USE PROJECT CHALLENGES



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Dredge-related

- Increased dredging contract costs
(potential impacts on navigation channel maintenance)
- Limited equipment availability for sediment unloading/discharging
- Decreased dredge production rates

Site-related

- Post-dredging sediment/site management
- Sediment handling issues (saturated sediment, low strength, consolidation, dust control)
- Site capacity limitations (continual need for more sites)
- Real estate (agreements/right of ways)
- Liability
- Invasive plant species