Ohio Lake Erie Dredged Material Program – 2019 Update

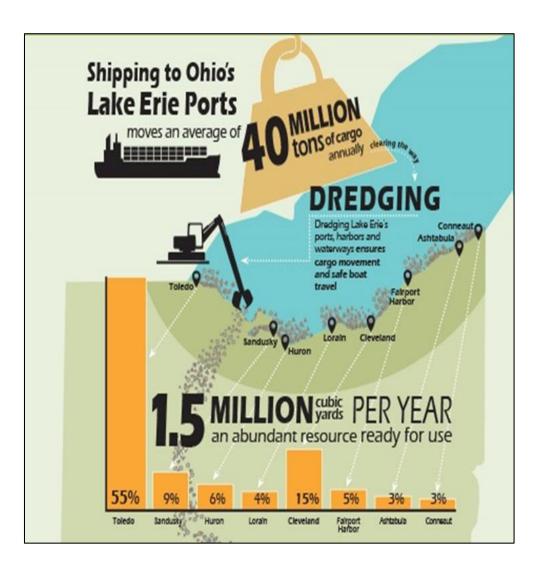








State of Ohio Beneficial Use Challenges



- Eight federal navigation channels
- Seven use openlake disposal
- 1.5 M cubic yards per year
- SB 1 July 2020 no open-lake disposal deadline
- 20% Reduction in sediment load by 2025

Potential Solutions

Dredged Material is a Resource, Not a Waste

- Soil Processing Facilities
 - Fill and cap material
 - Soil blending
- Manufactured Products
 - Component of another product (cement)
 - Ohio Materials Marketplace
- Agricultural
 - Agricultural (farm field) applications
- Environmental Enhancement
 - In-water wetland habitat restoration
 - Nature-based shorelines







Implementation Strategies

- OEPA, ODNR are changing Beneficial Use rules
- General permits
 - Soil background studies, sediment profiles
 - Establishing BMPs that work for industry
 - Addressing public perception
- Dredging Center for Innovation
 - Engaging farmers
 - Dewatering, yield, contaminant uptake
 - Implement larger-scale project
- Funding Capital Improvements
 - Port of Toledo
 - Port of Cleveland
 - City of Sandusky









Ohio Healthy Lake Erie Fund

\$10,000,000 Closed Out 2018

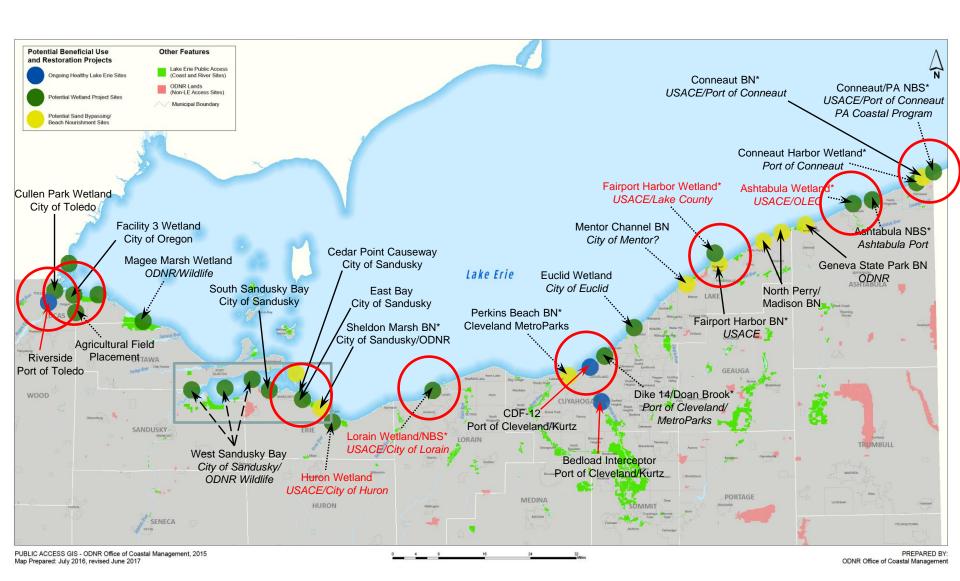
- Port of Toledo \$ 5,350,000 (Spent)
 - Agricultural Field Improvement (\$ 2.5 M)
 - Blended Soil Production
 - Infrastructure (Long-Term Pump Out and Sediment Storage/ Processing Facilities at Facility 3)
 - Beneficial Use Habitat Restoration Project(s) City of Toledo, Oregon
 - Streamside Feasibility/Pilot Project (City of Findlay)
- Port of Cleveland \$ 3,650,000 (Spent)
 - Sediment Management Demonstration Project (Bedload Sediment Interception) (\$1.2 M)
 - CDF 12 "Plan B" Sediment Processing Facility (\$ 1.45 M)
 - CDF 12 Expansion (\$ 1.0 M)
- City of Sandusky \$ 1,000,000 (Spent)
 - Sandusky Bay Initiative (\$1.0 M)

Ohio Healthy Lake Erie Fund (2019-2020)

- HB 529 \$10M Capital Appropriation
 - March 30, 2018 (effective date July 1, 2018)
 - General capital fund request, includes beneficial use projects
- SB 299 \$10M Capital Appropriation
 - July 11, 2018 (effective date October 10, 2018)
 - Specifically for beneficial use of dredge material projects

- January 2019 requested CB approval for \$9.1M for three beneficial use projects – Conneaut, Lorain, Toledo
- \$3.5M allocated for Ashtabula CAP 204 wetland project
- \$3.0M allocated for Cedar Point Causeway wetland
- Exploring sediment processing facility at Fairport Harbor
- Mentor Marsh Restoration (salt tailings litigation)
- Port of Cleveland reconfigures CDF 12 (not HLEF)

Potential Beneficial Use and Restoration Projects Ohio Lake Erie Coastal Area



City of Conneaut



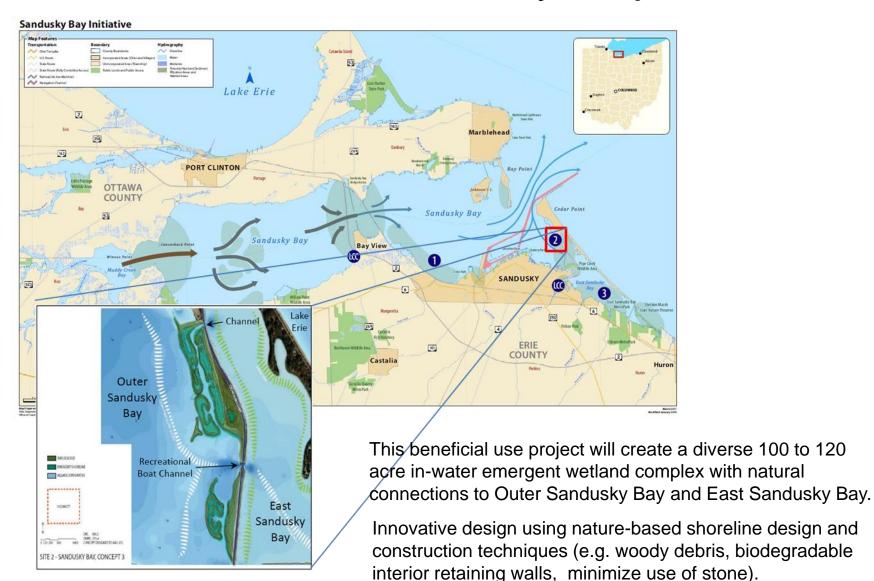
City of Lorain



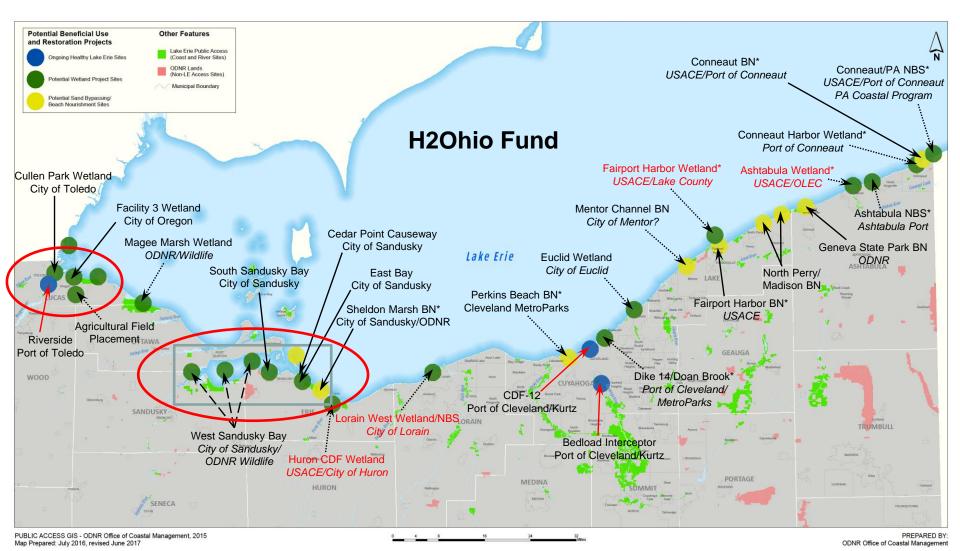
Port of Toledo



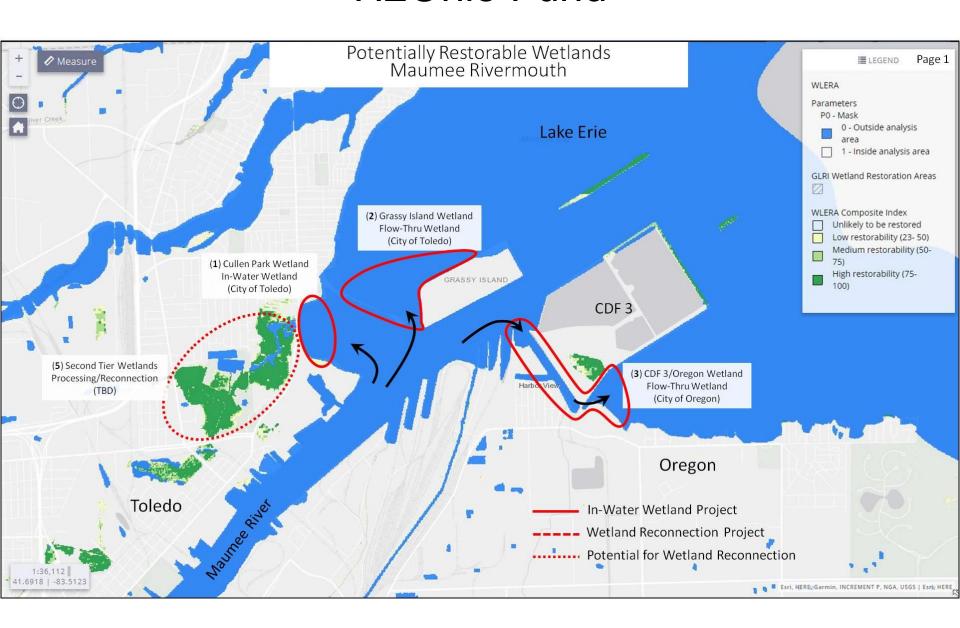
Cedar Point Causeway Project



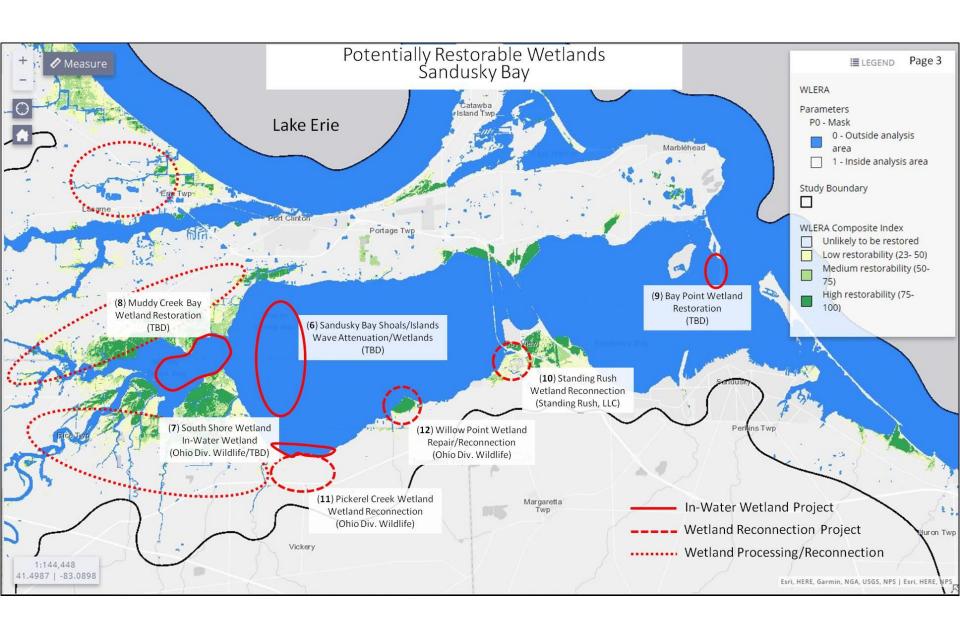
Potential Beneficial Use and Restoration Projects Ohio Lake Erie Coastal Area – H2Ohio Fund



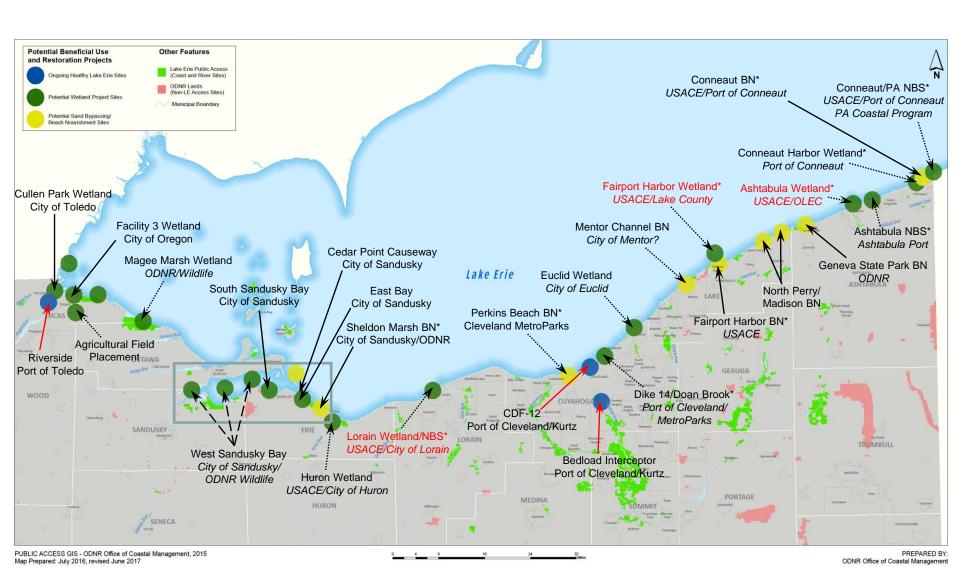
H2Ohio Fund



H2Ohio Fund



Strategic Implementation of Potential Beneficial Use Restoration Projects - Ohio



Beneficial Use and In-Water Habitat Restoration

- Perform systematic analysis of Beneficial Use opportunities along entire 312 mile Ohio Lake Erie coastline.
- Similar to financial investments, develop a "portfolio of projects" that achieve desired goals and objectives.
 - Design for project linkages that yield cumulative benefits that achieve desired goals and benefits.
 - Avoid "Random Acts of Restoration"
 - Use technical expertise and guidance to identify and create new restoration (i.e. investment) opportunities.
 - Structure project investments based on short-, intermediate-, and long-term timeframes.
 - Will allow us to coordinate federal and non-federal match, dredging activity

Beneficial Use Project GIS Development

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neficial_Use_Projects																				
Name	ld	Acres	Perimeter		Latitude	Longitude	Proj_Type		Mat_T	Place_Freq Use_Sui	Poten_Part	Imple_Cap	Proj_Obs	Fund_	Status_		Proj_Just	Dollar_Am	Port_Dist Avg_Bathy	Mat_Vo
Riverside	1	35.959926	1921.925061		41.670215		Infrastructure/OHLE	Toledo			Port of Toledo					Complete			2 0	
Cullen Park Wetland	2	27.799181	2273.558956		41.699632		Potential Wetland/NBS	Toledo			City of Toledo			HLEF	E&D	Active			0.7 2	80728
Proposed Agricultural Use Staging Impoundment Dike	1	36.880161	1869.817482	Lucas	41.697867	-83.437842	Infrastructure/OHLE	Toledo		ii ji	S-10-1700000								1.8 0	
CDF 3	1	154.21546	4112.294207	Lucas	41.702974	-83.427473	Infrastructure/OHLE	Toledo			Port of Toledo			HLEF	Ongoing	Active			2.6 0	
CDF 3	1	159.615341	3559.466645	Lucas	41.706618	-83.428239	Infrastructure/OHLE	Toledo			Port of Toledo			HLEF	Ongoing	Active			2.6 0	
CDF 3 Wetland	2	130.886182	4758.931101	Lucas	41.696568	-83.429322	Potential Wetland/NBS	Toledo			City of Oregon			HLEF	E&D	Active			2.4 3	570137
Maumee Bay Wetland	2	12.617859	1914.477974	Lucas	41.688081	-83.385339	Potential Wetland/NBS	Toledo											4.6 2	36642
Little Cedar Point Wetland	2	53.627913	4431.394468	Lucas	41.695839	-83.343426	Potential Wetland/NBS	Toledo			Port of Toledo					Mid			6.6 2	155735
Crane Creek Wetland	2	344.947803	7247.6524	Lucas	41.630131	-83.207031	Potential Wetland/NBS	Toledo											14.2 1.5	751293
Magee Marsh Wetland	2	111.625134	9324.983947	Ottawa	41.621352	-83.158329	Potential Wetland/NBS	Port Clinton			ODNR/Wildlife					Mid			13.1 2	324158
Sandusky Bay Bay Point Wetland	2	66.432157	3187.517205	Ottawa	41.491942	-82.716172	Potential Wetland/NBS	Sandusky			City of Sandusky			HLEF/GLRI	Phase 2	Pending			2.3 5	482297
Sandusky Bay South Shore Wetland	2	168.299421	7542.745507	Erie	41.450581	-82.769183	Potential Wetland/NBS	Sandusky			City of Sandusky			HLEF	E&D	Active			2.3 2	488740
Cedar Point Causeway Wetland	2	19.930358	1351.560881	Erie	41.45902	-82.673832	Potential Wetland/NBS	Sandusky			City of Sandusky/Ced			HLEF/GLRI	E&D	Active			2.4 2	57877
Cedar Point Causeway Wetland	2	56.187898	2727.443995	Erie	41.465821	-82.675843	Potential Wetland/NBS	Sandusky			City of Sandusky/Ced			HLEF/GLRI	E&D	Active			2.4 2	163169
Huron River Wetland	2	21.20683	1399.968058	Erie	41.399324	-82.551673	Potential Wetland/NBS	Huron			18/1 48/1					1			0.3 0	
Lorain West Wetland/NBS (CAP 204) 12000	2	91.310326	8353.458137	Lorain	41.431531	-82.2742	Potential Wetland/NBS	Lorain			City of Lorain			USACE/HL		Active			5.5 2	265164
Lorain West Wetland/NBS (CAP 204) 6700	2	21.28751	4408.36554	Lorain	41.443156	-82.236112	Potential Wetland/NBS	Lorain			City of Lorain			USACE/HL		Active			3.8 2	61818
Black River Harbor Wetlands	2	8.534354	1211.346736	Lorain	41.466139	-82.191964	Potential Wetland/NBS	Lorain			(\$//.								0.9 0	
Black River Harbor Wetlands	2	3.995733	704.602857	Lorain	41.475392	-82.180704	Potential Wetland/NBS	Lorain											0.2 0	
Black River Harbor Wetlands	2	16.676663	1411.238231	Lorain	41.474349	-82.17043	Potential Wetland/NBS	Lorain								Ĭ			0.3 0	
Black River Dredge Reuse Facility	1	43.481563	4215.26015	Lorain	41.453268	-82.141848	Infrastructure/OHLE	Lorain			City of Lorain			HLEF		Active			2.3 0	
Perkins Beach Nourishment	3	5.47807	954.780008	Cuyahoga	41.48934	-81.753415	Beach Nourishment	Cleveland			Cleveland MetroParks					Long			3.1 0	
CDF 12	1	81.104989	3220.573466	Cuyahoga	41.52774	-81.668825	Infrastructure/OHLE	Cleveland			Port of Cleveland/Kurt			HLEF	Ongoing	Complete			2 0	
Dike 14 Wetland	2	7.346729	745.083509	Cuyahoga	41.541926	-81.634678	Potential Wetland/NBS	Cleveland			Port of Cleveland/Clev					Mid			3.9 0	
Mentor Channel Beach Nourishment	3	4.189017	1253.262347		41.728294		Beach Nourishment	Fairport Harbor			City of Mentor			Mentor	Ongoing	Active			4 0	
Fairport Harbor Wetland (USACE CAP 204)	2	50.019899	3709.556051		41.765752	-81.265597	Potential Wetland/NBS	Fairport Harbor			USACE/Lake County					Pending			1.1 0	
Fairport Potential Sed Proc Facility	1	109.482404	2944.143631	Lake	41.762834	-81.237772	Infrastructure/OHLE	Fairport Harbor			-								2.2 0	
Ashtabula Harbor Wetland (USACE CAP 204)	2	32.524994	1973.03947	Ashtabula	41.916591	-80.786228	Potential Wetland/NBS	Ashtabula			USACE/Ashtabula Port			USACE/HL		Active			0.9 0	
Conneaut CDF	1	6.147504	722.411655		41.96338		Infrastructure/OHLE	Conneaut			City of Conneaut			HLEF		Active			0.5 0	

