



Cleveland Harbor, OH

Harbor Features

- Located on Lake Erie in the city of Cleveland, Cuyahoga County, Ohio
- Authorization: River & Harbor Acts of 1875, 1886, 1888, 1896, 1899, 1902, 1907, 1910, 1916, 1917, 1935, 1937, 1945, 1946, 1958, 1960, 1962, Water Resources Development Acts of 1976 and 1986, Supplemental Appropriations Act of 1987 and the Energy & Water Appropriations Act of 1988
- Deep draft commercial harbor
- Authorized depths are 28 feet in the outer harbor and 23 feet in the river
- 48th leading U.S. port with 10.6M tons of material shipped or received in 2008
- Cleveland Harbor is ranked 7th among the Great Lakes Ports
- Over 5.5 miles of breakwater structures
- 5.8 miles of Federal channel on the Cuyahoga River and 1 mile of Federal channel on the Old River
- Confined disposal facilities (CDFs) are located to the east of the harbor entrance
- Major stakeholders include Cleveland-Cuyahoga County Port Authority, Burke Lakefront Airport, ArcelorMittal, U.S. Coast Guard, Lake Carriers' Association, and Cargill

Project Requirements

- A minimum of 330,000 cubic yards (CY) of material must be dredged each year. However, since 2007 the amount dredged has been reduced to 225,000 CY due to limited CDF capacity. Dredging was completed in FY11 and is scheduled for FY12
- The current sediment backlog within the functional harbor areas exceeds 1.5M CY
- Severely deteriorated sections of the east and west breakwaters, arrowheads and finger pier must be repaired.



- The existing CDF's will reach capacity by current hydraulic placement methods in 2014. An interim DMMP is being prepared to address the short-term (through 2018) capacity needs until a new long-term plan is in place.
- Beneficial uses of sediments offer good prospects for extending existing CDF capacities. Significant success was achieved in 2010 when 300,000 CY of sediments were re-used on an innovative, large-scale upland brownfield reclamation project in the City of Cleveland.
- In August 2011, the Corps completed an exhaustive analysis of sediments and the beneficial use alternatives for Cleveland Harbor. The results of this effort will form the basis for alternatives currently being examined in the new interim DMMP.
- Critical requirements include maintenance dredging, dredged material fill management and structure repair.

Consequences of Not Maintaining the Project

- Failure to dredge the harbor will result in continued shoaling and reduced channel dimensions; resulting in light loading, increased transportation costs and unsafe navigation conditions

Consequences of Not Maintaining the Project

- Failure to implement critical interim and long term CDF capacity measures will lead to a further reduction in annual dredging quantities and the inability to dredge once existing CDF capacity is exhausted.
- Light loading; losses of between 1 and 2 feet of channel depth would result in increased transportation costs of between \$3.3M and \$7.6M annually.
- Reduction of bulk commodities that pass through the harbor generate \$709M annually in direct revenue while supporting over 3,500 jobs and generating over \$161M per year in personal income.
- If the harbor was closed to commercial traffic, commodities would have to be transported by rail and truck. This would increase annual emission rates by over 117,600 tons of harmful particulate matter (PM-10) and increase costs by \$7.3M due to increased railroad related accidents, and \$8.9M due to increased trucking related accidents.

- Failure to repair the deteriorated structures will result in the continued degradation, increased future maintenance costs and unsafe navigation conditions within the harbor leading to vessel delays and potential damage to shoreline structures. Additionally, the finger pier is utilized by USACE Floating Plant for seasonal mooring and continued degradation could jeopardize this use.

Transportation Importance

- Major receiving and shipping port on the Great Lakes
- Critical Harbor of Refuge
- Commodities shipped or received include iron ore, limestone, sand and gravel, salt, cement and concrete, general cargo and liquid bulk
- Major iron ore transshipment facility located at Cleveland's Outer Harbor. This facility provides iron ore to inland steel mills at lower delivery costs when compared to truck or direct rail delivery

**U.S. Army Corps of Engineers Fiscal Year (FY) 2011, 2012 and 2013
Cleveland Harbor, Ohio - Project Requirements and President's Budget (\$1,000)**

Work Package	GLRI Funds	FY11 Requirement	FY11 Work Plan	FY12 Requirement	FY12 Appropriation	FY13 Requirement	FY13 President's Budget
Maintenance Dredging – Primary		2,600	3,120	2,850	2,730	2,585	2,585
DMMP/CDF Beneficial Use Activities	50	400		200	200	259	259
Dredged Material Management Operations CDF 10B Excavation							
E&D, New CDF		800	800	600	600		
E&D Long Term Management Plan						494	494
Fill Management Activities, Interim CDF (Dike 12, Phase 2)		7,000	4,136				
Fill Management Activities, Phase 1				4,000	3,810		
Fill Management Activities, Phase 2				4,000		3,760	3,760
Fill Management Activities, Dike 9							
E&D Interim CDF (Dike 9, Phase 2)		350	320				
Interim CDF Maintenance (Grading)		250	250	350	350	300	300
Snagging & Clearing Floating Plant (F/P)		40	40	60	60	65	
Structure Repair. – E & W Arrowhead Breakwaters (F/P)		900	900	970	970	1,055	806
Structure Repair. – E & W Arrowhead Breakwaters (Stone)		450		450		450	
Structure Repair – Dike 10B (F/P)						330	
Construction, West Pierhead Repair		3,400				60	
Construction, East Breakwater Repair (Sta 84-94)		2,500	246	2,900			
Const., East Breakwater Repair (Sta 98-100, 89-91)						2,375	
Construction, Finger Pier Repair, Phase 1		6,000				3,100	
Construction, Finger Pier Repair, Phase 2		6,000				3,100	
Construction, Wharf and Utility Repair (1&3)		4,500		300		3,900	
Construction, Wharf and Utility Repair (2)		4,500		300		3,200	
E&D, East Breakwater West End Section Repair		100		150		250	
Construction, East Breakwater West End Section Repair		2,500					
E&D, Finger Pier Repair						225	
E&D East Breakwater Repair (Sta. 94-110)		250					
E&D East Breakwater Repair (Sta. 84-89, 100-106)						75	
E&D West Pier Repair		300					
E&D West Breakwater East End Section Repair		250					
E&D East Arrowhead Breakwater		300					
E&D West Breakwater Repair		300					
Project Condition Surveys		490	490	515	505	505	505
CDF ERGO Compliance		70					
Environmental Compliance (CDF Monitoring, Field)		15					
Regional Economic Data Collection		250	250	250	250	250	250
Sediment Sampling and Analysis						500	
TOTALS	50	34,015	10,552	17,895	9,475	26,838	8,959

Congressional Interests

- Representative Dennis J. Kucinich D-OH-10
- Representative Marcia Fudge D-OH-11
- Senator Rob Portman R-OH
- Senator Sherrod Brown D-OH