

Chicago District Navigation Program Overview

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US Army Corps of Engineers
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FY13 PRES BUD DREDGING

Project	Location	FY13 Budget	FY13 Est. Qty	Annual Req'd.	Last Dredged	Freq.	Comments
Calumet Harbor, IL	HARBOR & RIVER	\$958.K	30,000 CY	50,000 CY	2012	1	CDF nearly full; additional sediment management for CDF disposal required.
Indiana Harbor, IN	CANAL	\$3,296.K	55,000 CY	110,000 CY	2012	1	Large qty of debris in FY12 dredging; cost overrun met with FY13 funds
Burns Waterway Harbor, IN	HARBOR APPROACH	\$2,850.K	210,000 CY	80,000 CY (estimated)	never	1 (est.)	Beach accretion around ArcelorMittal dike now allows sand to freely move into approach channel.
Waukegan Harbor, IL	HARBOR APPROACH	\$1,200.K	80,000 CY	70,000 CY	2012	1	31 Oct Hurricane Sandy storm deposited 60.K CY into approach channel
Michigan City, IN	HARBOR ENTRANCE	\$735.K	35,000 CY	12,000 CY	2012	3-4	31 Oct Hurricane Sandy storm deposited 40.K CY into approach channel
Michigan City, IN	TRAIL CREEK	\$3,050.K	60,000 CY	7,000 CY	2002	7-9	Suitable disposal site needed to avoid very costly landfill placement.

FUNDED

UNFUNDED

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FY14 LRC DREDGING NEEDS

Project	Location	FY14 Budget	FY14 Est. Qty	Annual Req'd.	Last Dredged	Freq.	Comments
Calumet Harbor, IL	HARBOR & RIVER	\$1,560.K	40,000 CY	50,000 CY	2013	1	CDF storage limits require minimization of dredging
Indiana Harbor, IN	CANAL	\$5,232.K	180,000 CY	55,000 CY	2013	1	Large volume of dredging needed to assure bottom seal achieved in both CDF cells to control groundwater gradient and protect environment.
Burns Waterway Harbor, IN	HARBOR APPROACH	\$1,900.K	160,000 CY	80,000 CY (estimated)	never	1 (est.)	Request assumes full approach channel dredging need was not met in FY13.
Waukegan Harbor, IL	HARBOR APPROACH	\$1,300.K	90,000 CY	75,000 CY	2012	1	Without annual dredging, harbor shoaling conditions force closures every year.
Michigan City, IN	HARBOR ENTRANCE	\$795.K	40,000 CY	12,000 CY	2012	3-4	Request assumes dredging need was not met in FY13.
Michigan City, IN	TRAIL CREEK	\$3,050.K	60,000 CY	7,000 CY	2002	7-9	Request assumes dredging need was not met in FY13.

INDIANA HARBOR

10.2M tons shipped or received in 2010.

Interconnected with 83 commercial ports: ships to 41, receives from 42.

Loss of 4.0 to 5.0 feet of channel depth due to shoaling and/or lake water level results in light loading, and increased transportation costs of between \$9.7M and \$13.1M annually.

Indiana Harbor is one of the 43 areas of concern (AOC) identified by the International Joint Committee for the Great Lakes. The harbor is the only AOC that fails all fourteen criteria established by USEPA.

Dredging work was initiated in the autumn of 2012.



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INDIANA CDF

Construction of the confined disposal facility (CDF) was completed in 2012, and permanent project operations began.

A combined site operations and dredging contract was awarded to a joint venture between Kokosing Construction Co. and O'Brien & Gere. The contract features a base year plus up to four option years, and employs task orders for dredging.



Major elements of CDF operations include:

- **Groundwater Gradient System**
- **Water Management and excess water treatment**
- **Real-Time and Ambient Air Monitoring as a facility control**
- **Regulatory Reporting**



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CALUMET HARBOR

11.0M tons shipped or received in 2010.

Interconnected with 154 commercial ports: ships to 74, receives from 80.

Loss of 1.5 to 2.5 feet of channel depth due to shoaling and/or lake water level results in light loading, and increased transportation costs of between \$0.5M and \$1.0M annually. Record low water levels on Lake Michigan exacerbate this condition substantially.

The Chicago CDF was constructed in 1984, and was designed to hold minimally 1.3 M CY of contaminated sediment.

The facility is nearly full, & life-extension measures are underway.



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CALUMET HARBOR

CHICAGO CDF CURRENT ACTIVITIES:

- **Dredged Material Management Plan**
- **Closure Plan and Life-Extension Measures**



DMMP completion is scheduled in 2015, but future disposal solution is 7-10 years away.

Sediment management efforts will focus on grading, and trenching to accelerate sediment drying, and piling to optimize available space.

All future material dredged from the Outer Harbor will be segregated and stockpiled outside of the CDF for beneficial uses, such as the future site closure cap.



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BURNS WATERWAY HARBOR

6.1M tons shipped or received in 2010.

Interconnected with 65 commercial ports: ships to 27, receives from 38.

Loss of 2.5 to 3.5 feet of channel depth due to shoaling and/or lake water level results in light loading, and increased transportation costs of between \$0.5M and \$1.0M annually. The record low water levels on Lake Michigan exacerbates these costs substantially



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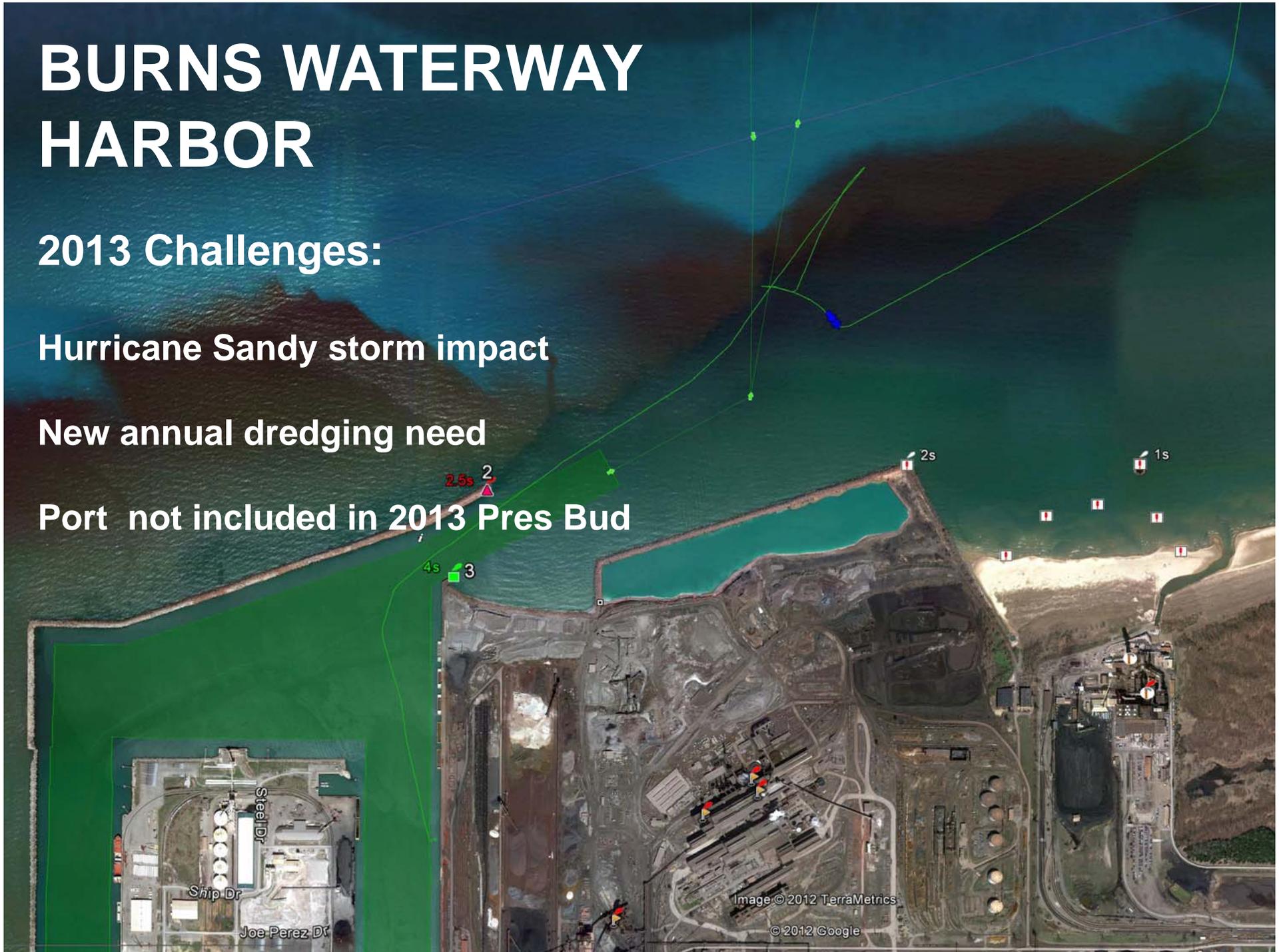
BURNS WATERWAY HARBOR

2013 Challenges:

Hurricane Sandy storm impact

New annual dredging need

Port not included in 2013 Pres Bud



WAUKEGAN HARBOR

206,000 tons shipped or received in 2010.

Interconnected with 13 commercial ports: ships to six, receives from seven.

During a typical winter season, a 3.5 to 4.5 foot loss of channel depth results from shoaling, with a corresponding sand volume of 75,000 CY

Shoaling losses in the channel lead to vessel light loading, and increased transportation costs between \$2.7M and \$4.7M annually. The record low water level on Lake Michigan exacerbates these costs substantially.

The annual cost of dredging to avoid those expenses is approximately \$1.2M - a substantial net benefit.



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WAUKEGAN HARBOR

2013 Challenges:

Hurricane Sandy Closure

Port not included in 2013 Pres Bud



If Federal approach channel is not dredged in in FY13, both the National Gypsum Drywall Plant and the LaFarge Cement Terminal will permanently close within 1-2 years.

St. Mary's Cement would attempt to truck materials from Milwaukee, but may also face closure.



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CHICAGO LOCK



New sector gate completion in 2012



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