

U.S. Army Corps of Engineers Great Lakes Navigation Update

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February 27, 2013

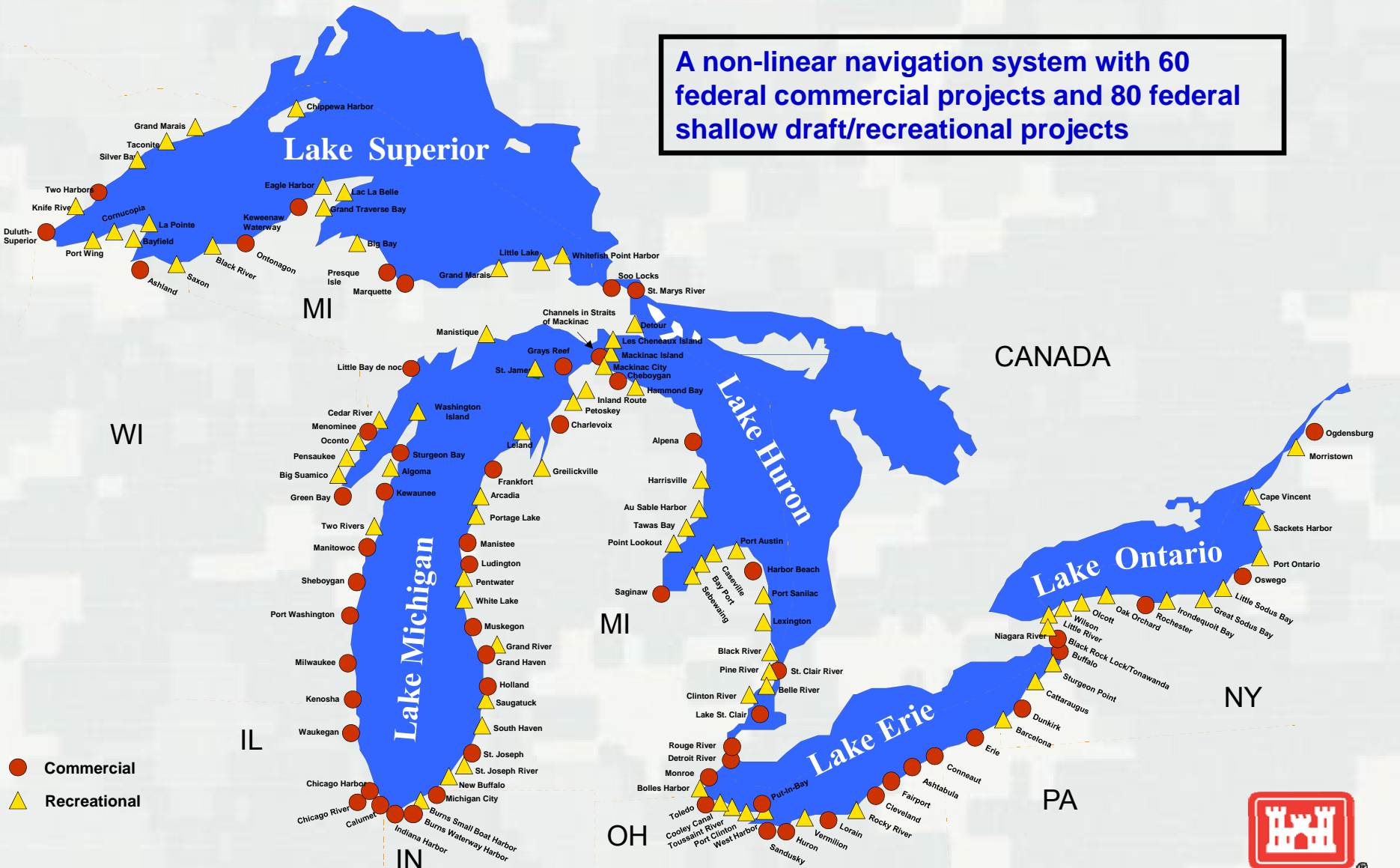


US Army Corps of Engineers
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Federal Projects on the Great Lakes

A non-linear navigation system with 60 federal commercial projects and 80 federal shallow draft/recreational projects



Corps Great Lakes Navigation Funding Status



FY13 Corps Funding Status

- Congress has not passed an Energy & Water appropriations bill for FY13.
- The Corps is operating under a Continuing Resolution Authority (CRA), with funding levels no greater than FY12.
- CRA funding generally follows FY13 President's Budget. Projects that did not receive funding in FY12 are not eligible for funding under the CRA.
- It is possible that we will have a year-long CRA in FY13.
- Sequestration could further reduce our funding levels.

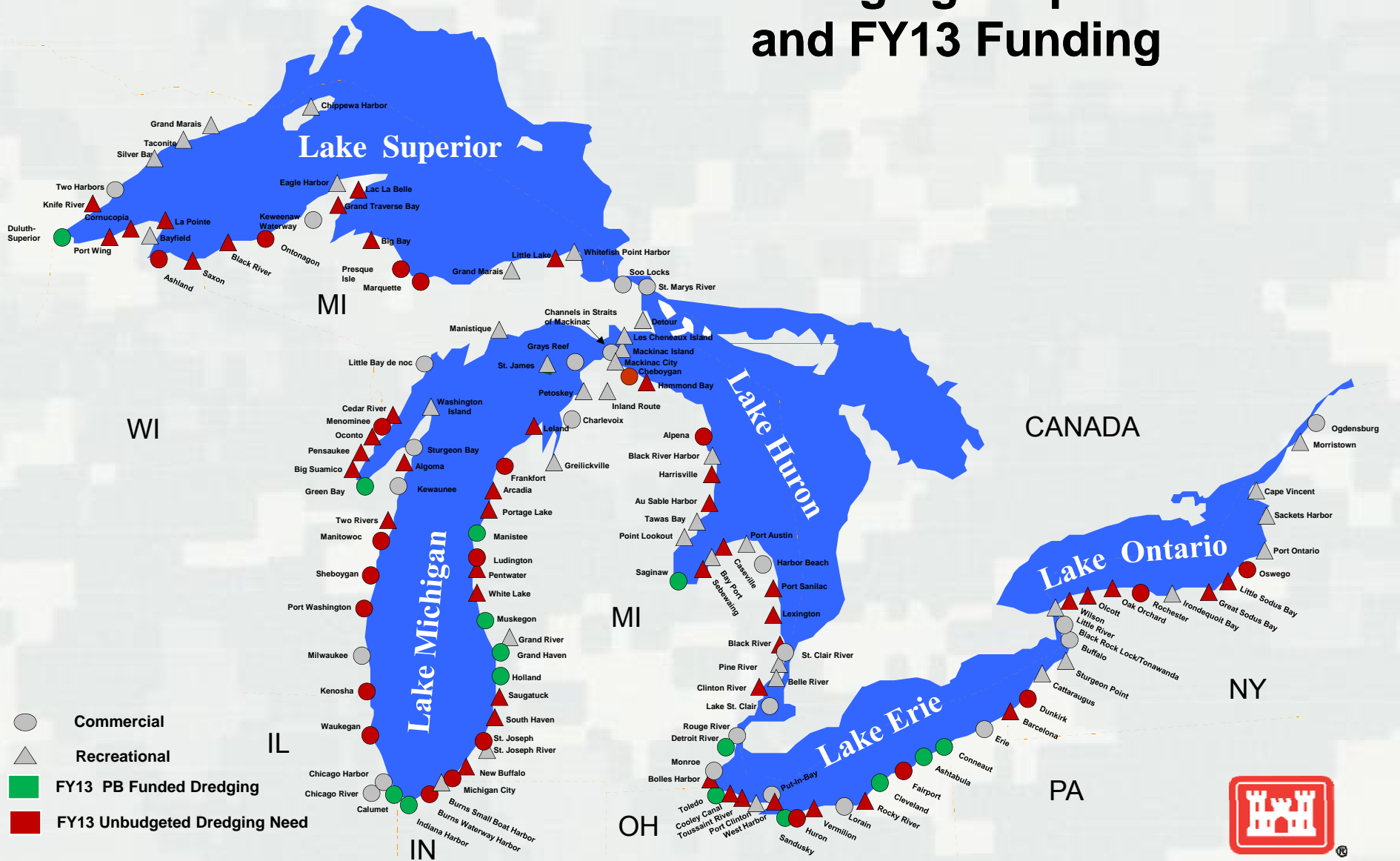


Federal Budget Process

- The Corps submits budget requests for all federal harbors with operation & maintenance needs
- With the limited funding available, operations and maintenance funding for deep draft navigation projects usually takes priority over shallow draft harbors
- Subsistence harbors and harbors that support commercial transportation and fishing are budgetable but come at a lower priority than commercial harbors



FY13 Dredging Requirements and FY13 Funding



FY 13 President's Budget Dredging Projects

Duluth-Superior
Green Bay
Calumet
Indiana Harbor
Holland
Grand Haven
Muskegon
Manistee

Saginaw River
Detroit River
Toledo
Sandusky
Cleveland
Ashtabula
Conneaut



Harbors Affected by Hurricane Sandy

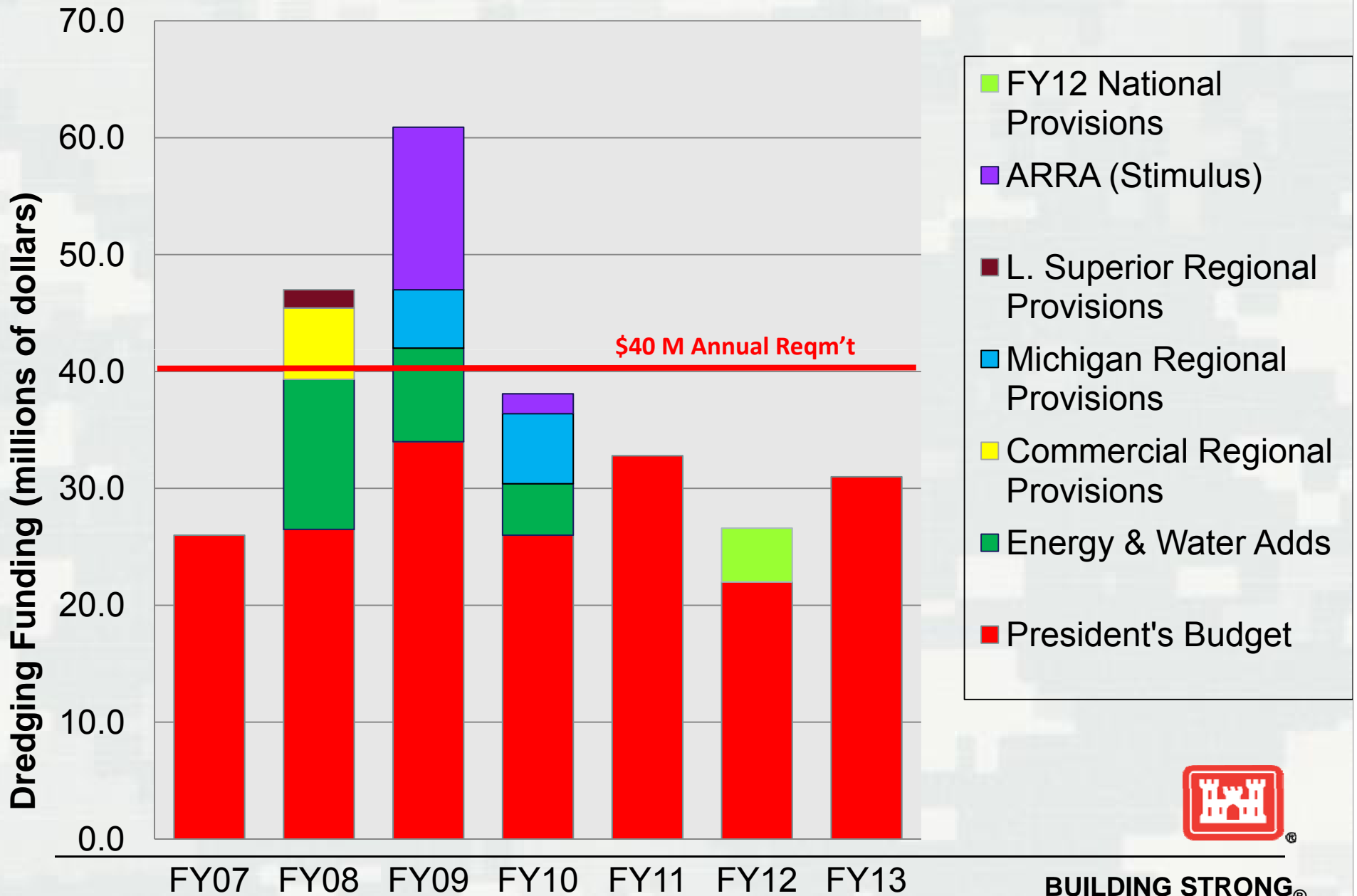
Burns Waterway
Waukegan
Michigan City
St. Joseph
Muskegon
Holland

Cleveland
Lorain

- President signed Sandy Supplemental on January 29. Included \$821M for dredging and repair needs nationwide due to Sandy. Funds have not been allocated by HQ yet to specific projects.
- Great Lakes Districts have submitted our needs.

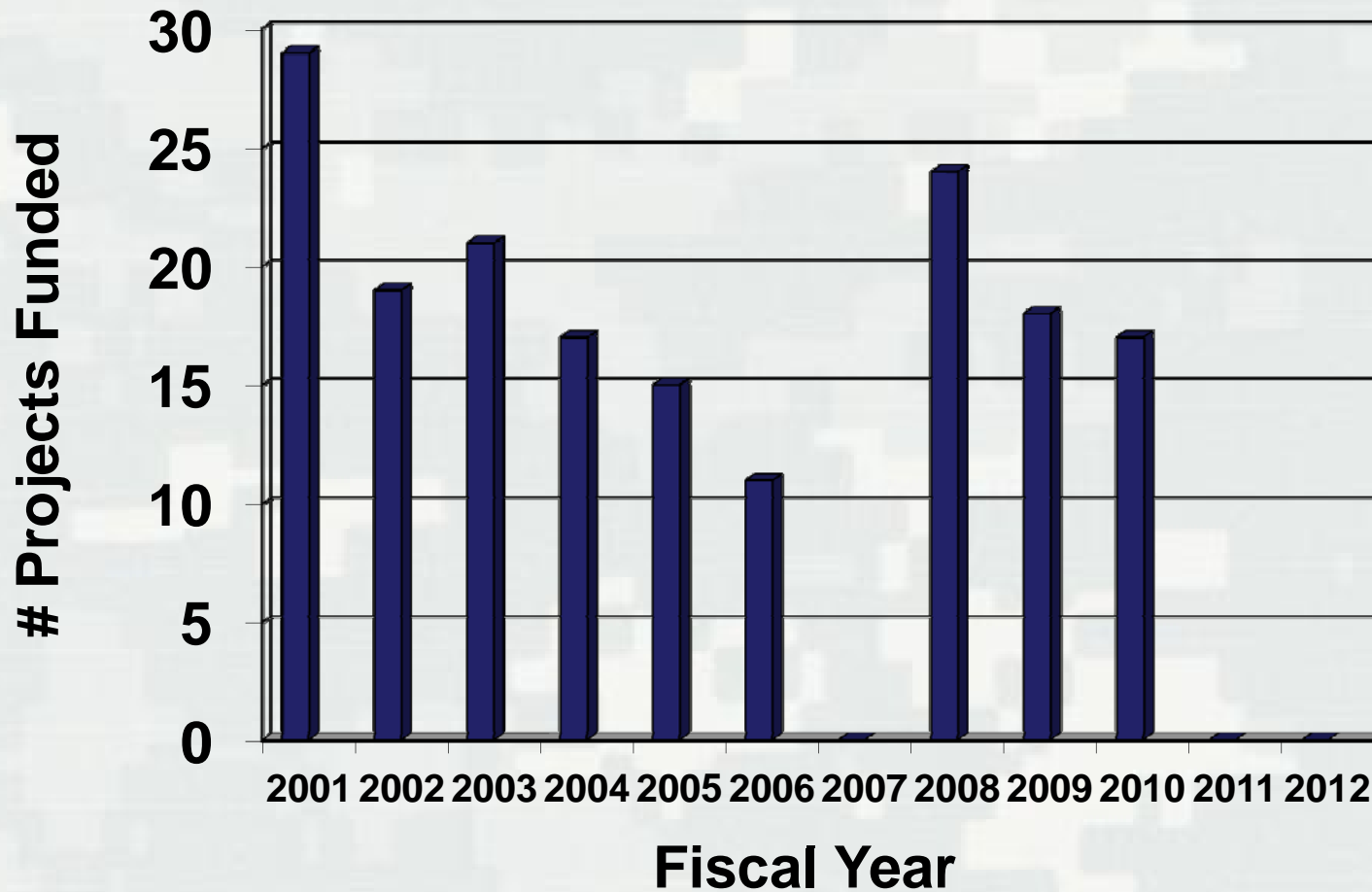


Dredging Funding Trends 2007 - 2013



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Historical Shallow Draft Harbor Funding



Alternatives to Corps funded dredging

- There are two primary methods for local communities to accomplish dredging outside of the traditional Corps dredging process:
 - Local community signs an agreement with the Corps to provide funding to the Corps and the Corps accomplishes the dredging including design, contractor acquisition, and dredging quality assurance.
 - Local community obtains a permit from the Corps and the state. The Corps will grant a permit good for 10 years. Must check state requirements.



Great Lakes Water Levels

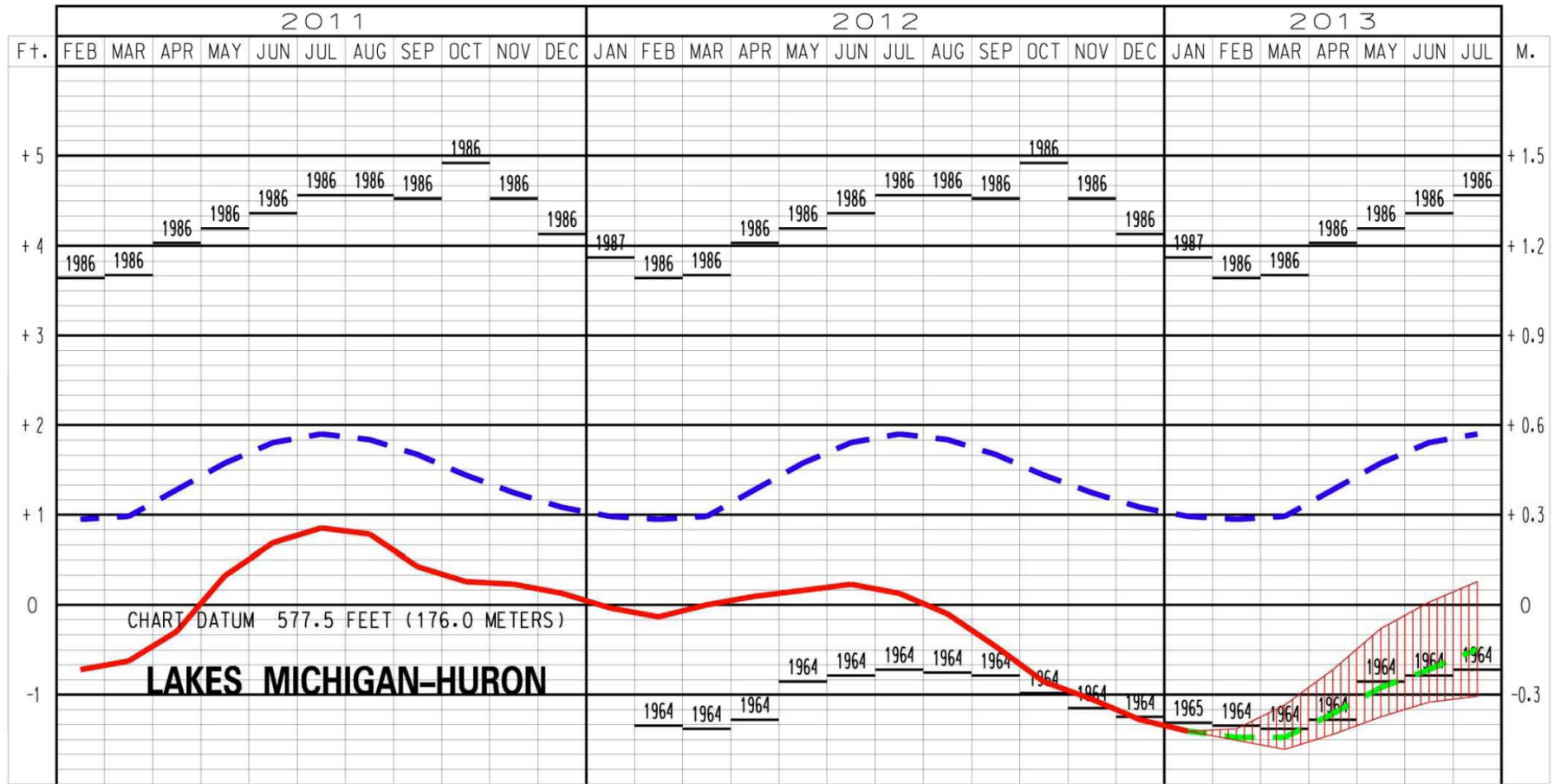


Water Levels on Great Lakes

- All the Great Lakes are below their long term averages. Lake Michigan-Huron set new monthly record low levels in December and January and an all-time low in January.
- Levels on Lakes Superior and Michigan-Huron have been below average for over 14 years, the longest stretch in their recorded histories.
- Lake Erie has dropped two feet in the past year and had no seasonal rise in 2012 - first time the lake had no seasonal rise.
- The most probable forecast shows Lake Michigan-Huron setting new record lows again in February and March, and remaining near record low levels from April – July and most likely well beyond that.
- Lakes Superior and Michigan-Huron are expected to be 12 and 18 inches below chart datum, respectively, at the open of the 2013 navigation season in March.



LAKES MICHIGAN-HURON WATER LEVELS - FEBRUARY 2013

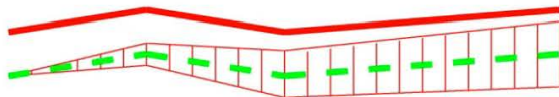


LEGEND

LAKE LEVELS

RECORDED

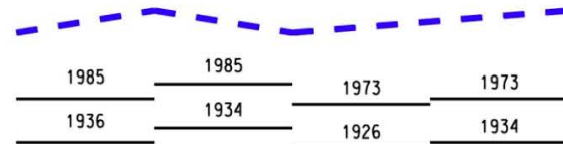
PROJECTED



AVERAGE **

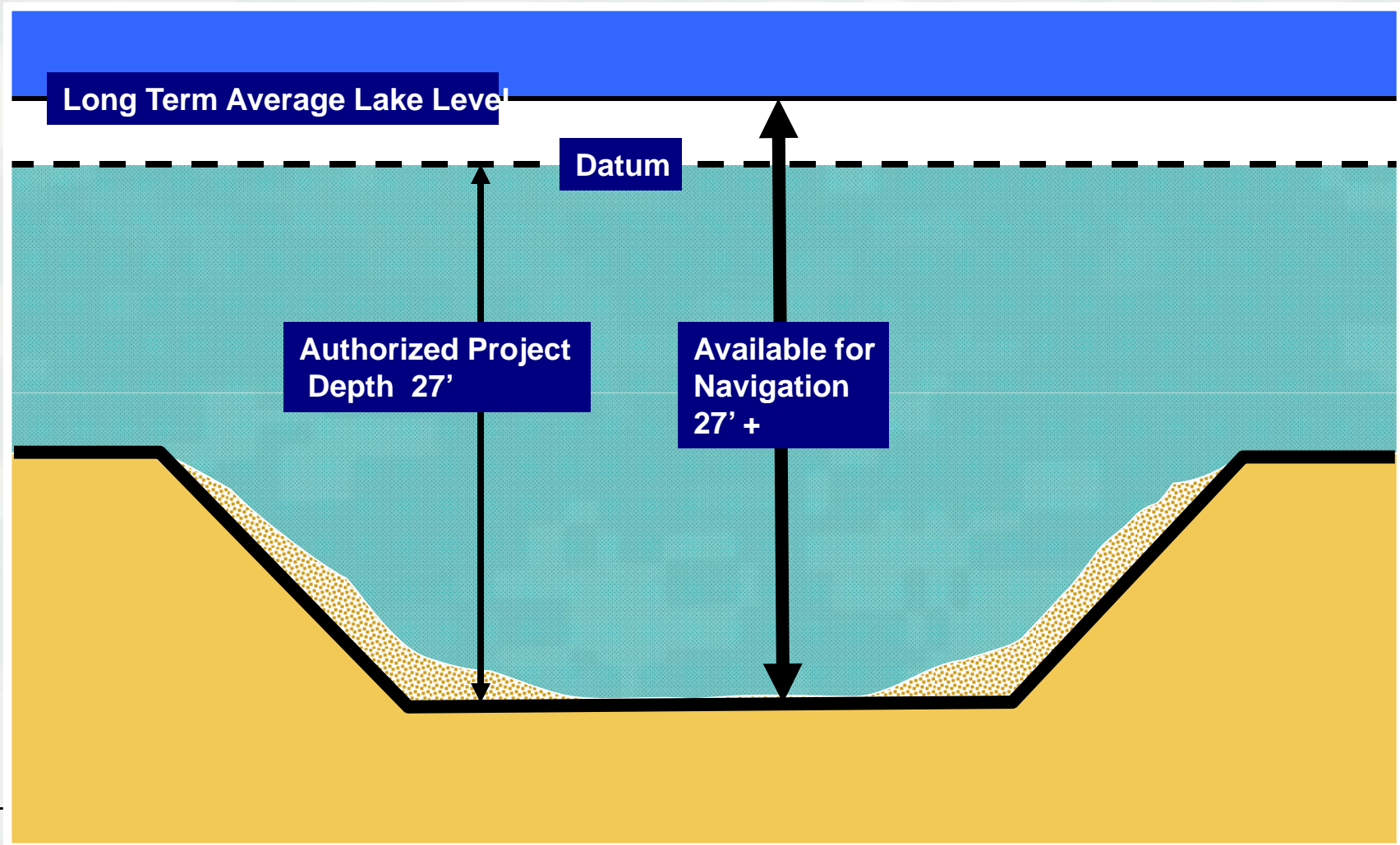
MAXIMUM **

MINIMUM **

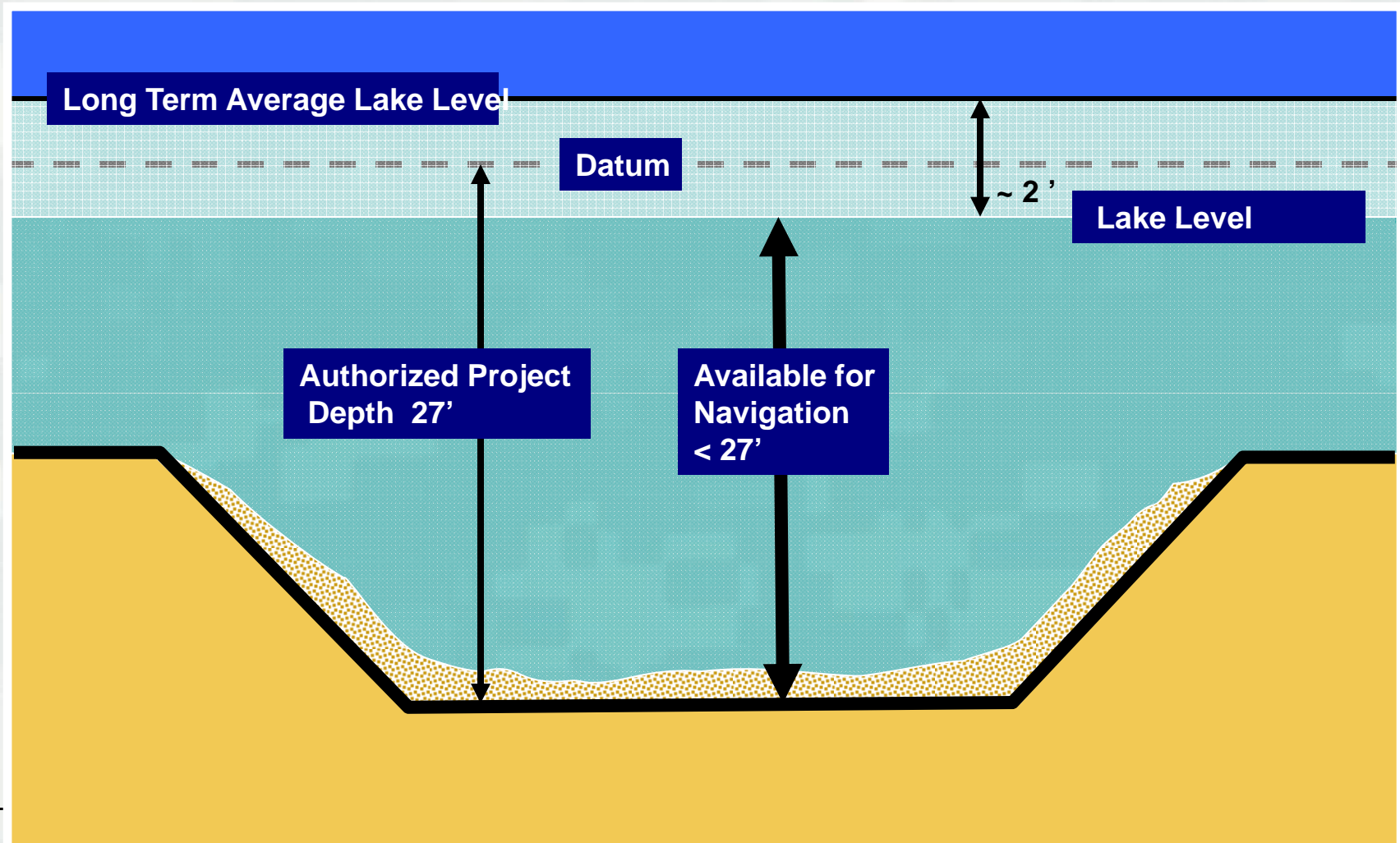


** Average, Maximum and Minimum for period 1918-2011

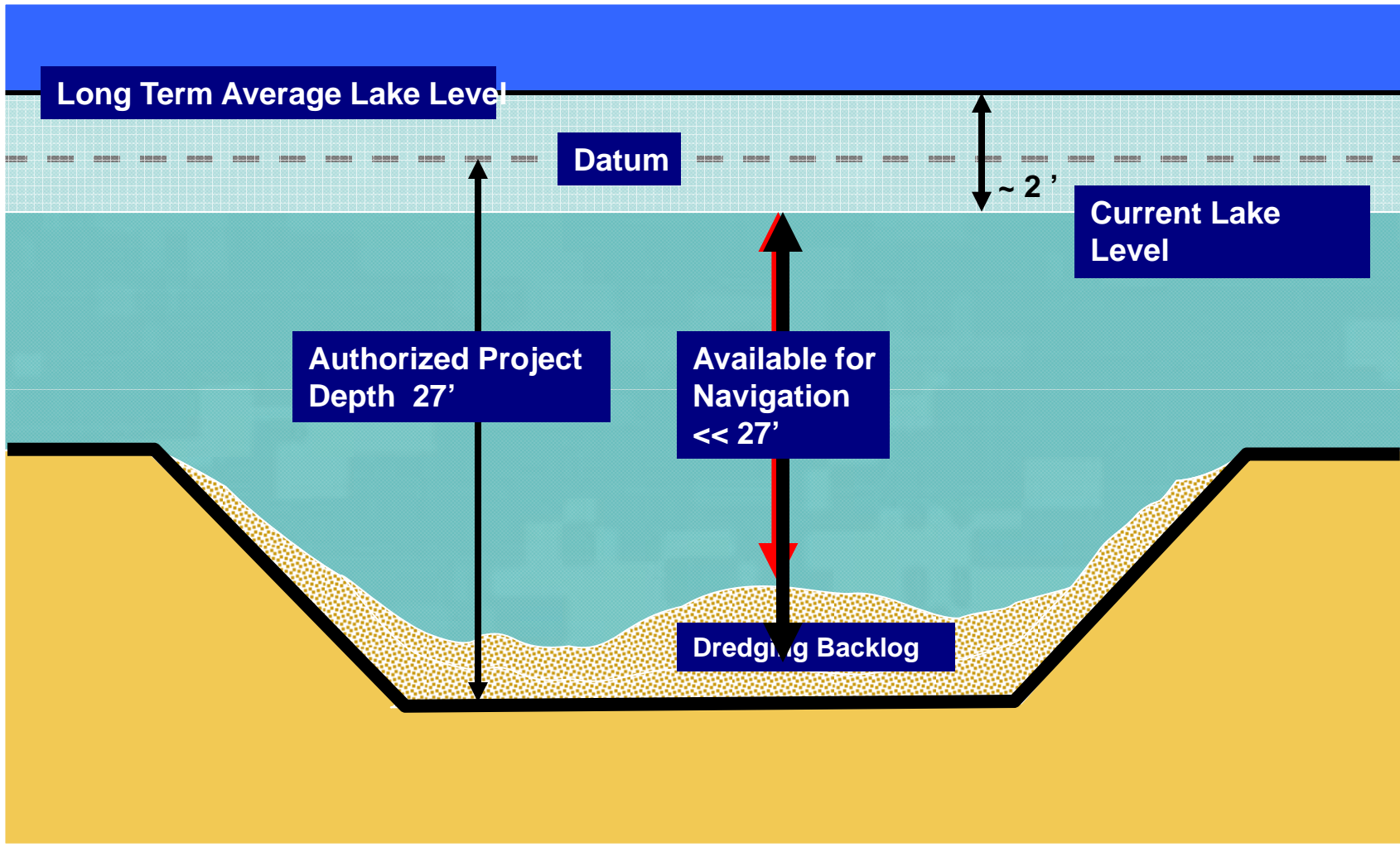
Historical Water Levels “Normal” Conditions



Conditions: 1999 to present Water Level Below Datum



Current Condition Below Datum w/Dredging Backlog



WRDA 2000 Section 343 Authority

- The Corps has the authority to dredge below project depths under certain circumstances
- WRDA 2000 Section 343:
 - (b) Dredging Levels.--In operating and maintaining Federal channels and harbors of, and the connecting channels between, the Great Lakes, the Secretary shall conduct such dredging as is necessary to ensure minimal operation depths consistent with the original authorized depths of the channels and harbors when water levels in the Great Lakes are, or are forecast to be, below the International Great Lakes Datum of 1985.
- This provides authority; O&M funding for the additional dredging would also be needed



Navigation Structures - Communicating Risk



Coastal Structure Communication Objective

Program Objective: Communicate the risk of breakwater and structure conditions to local stakeholders and navigation system users

Process:

1. **Conduct Condition Assessments**
 - Commercial Harbors- Use detailed Breakwater Assessment Team (BAT) Evaluation
 - Recreational Harbors- Rely on expert elicitation
2. **Conduct Harbor Infrastructure Inventory on all structures**
3. **Prepare summary document** that conveys the current condition of the harbor infrastructure as well as the risk involved in the event of failure
4. **Share with stakeholders** in regional meetings

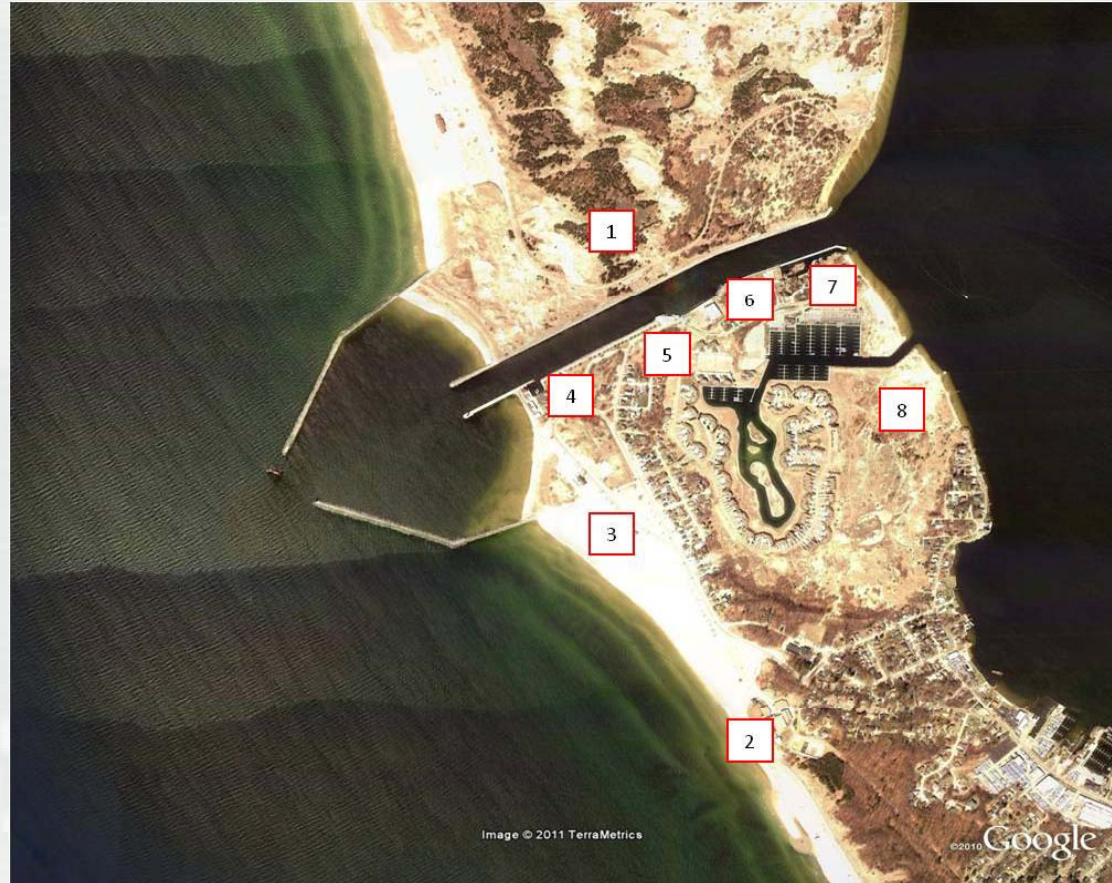


Muskegon Harbor:

Overall rating of 'C', North Breakwater Head and portions of South Connector rated 'D'

Infrastructure:

1. Muskegon State Park
2. City of Muskegon Water Filtration Plant
3. Pere Marquette Park
4. National Oceanic and Atmospheric Administration's Lake Michigan Field Office and United States Coast Guard Station
5. Margaret Drake Elliot Park
6. Great Lakes Naval Memorial and Museum (GLNMM) and USS Silversides
7. Channel Front Homes
8. Harbor Town Marina



Regional Risk Communication Meetings



Communication

- Great Lakes Brochure
- Web Site:
www.lre.usace.army.mil/greatlakes/navigation
 - ▶ Fact Sheets will be updated after FY14 President's Budget is released
 - ▶ Presentations
- Mailing Lists – send information to [glnavigation @usace.army.mil](mailto:glnavigation@usace.army.mil)



Identifying Needs of Harbor Fact Sheets

- Identifying the Economic and Social Impacts Related to Maintaining the Authorized Project
- Identifying Other Critical Factors (Subsistence Harbor, Infrastructure Protected by Harbor)
- We will continue to refine the information with your help!



Saginaw River, MI

River Features

- Saginaw River is formed by the union of the Tittabawassee and Shiawassee Rivers, is 22 miles long, and flows northerly into the south end of Saginaw Bay in Lake Huron. The cities of Saginaw and Bay City are on the river.
- Authorization: River & Harbor Acts of 25 Jun 1910, 3 Jul 1930, 26 Aug 1937, 20 Jun 1938, 3 Sep 1954, 23 Oct 1962, 27 Oct 1965
- Deep draft commercial harbor
- Project depths varying from 27 feet below LWD in the Saginaw Bay entrance channel to 22 to 26 feet in the Saginaw River channel.
- 3.7M tons of material shipped or received in 2008
- Total of 26 miles of Federal channels and 5 turning basins
- Saginaw Bay confined disposal facility is located about one mile northeast of the mouth of the river in Saginaw Bay and has sufficient capacity for the next 25 years.
- Major stakeholders include U.S. Coast Guard, Lake Carriers' Association, ADM, Bay Aggregates, Bit-Mat Products of Michigan, BMT Terminals, Burroughs Materials Corp., Conagra, Consumers Energy, C. Reiss Coal, Dow Chemical, Essroc Italcementi Group, General Motors, International Materials, Lafarge North America, Lee Wood Terminal, Morton Salt, Mosaic, Northern Star Minerals, Peavey Grain, Potash Corp Saskatchewan, Saginaw Bay Fertilizer, Saginaw Asphalt Paving Co., Saginaw Rock Products, Saginaw River Alliance, Sargent Docks & Terminal Company, SIFTO North American Salt, Triple Clean Liquifuels, Wirt Stone Docks.



Project Requirements

- Entrance channel in Saginaw Bay requires annual maintenance dredging of approximately 180,000 cubic yards. The upper river channel requires maintenance dredging of 50,000 to 100,000 cubic yards on a 2 to 3 year cycle.
- Maintenance dredging was conducted in 2011; dredging was funded for 2012 by an allocation from the National Provision in the FY12 Consolidated Appropriation Bill; dredging will also be required in 2013.
- There is a requirement for maintenance dredging in FY13. Without annual dredging transportation costs would increase by \$6.5 million. Significant light loading and increased groundings could be expected.
- ARRA funds were used to complete fill management of the Saginaw Bay CDF and dredging of the upper Saginaw River. The Bay CDF is nearing capacity and requires a Dredged Material Management Plan to be completed to identify a 20 year solution to dredged material disposal.
- Material dredged from the upper river is placed in the Dredged Material Disposal Facility that was constructed in 2008 and will provide capacity for the material dredged from the upper Saginaw River channel.

February 2012

Consequences of Not Maintaining the Project

- BNSF runs 100 trains through the Saginaw River to generate \$100M in annual direct revenue while supporting over 1,100 jobs and generating \$51M per year in personal income.
- Light loading; loss of between 1 and 2 feet of channel depth results in increased transportation costs of between \$1.7M and \$3.9M annually.

Transportation Importance

- Major receiving point for Great Lakes fertilizer shipped through Saginaw River.
- Commodities include coal, limestone, petroleum products, gypsum, salt, fertilizers - potash, urea, DAP, Ag lime; food and grains, and cement.

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

Work Package	FY11 Requirement	FY11 Work Plan	FY12 Requirement	FY12 Appropriation	FY13 Requirement	FY13 President's Budget
Project Condition Surveys	340	336	350	343	350	350
Maintenance Dredging - Primary Work Package	2,100	2,075	2,205	2,079*	3,290	3,290
Maintenance Dredging - Backlog Work Package	3,170		3,170		2,000	
CDF ERI Management	750	741	1,000		750	
DMMP Development			200	196	188	188
Upper Saginaw CDF Ops					263	263
TOTALS	6,360	3,152	6,925	2,618	6,841	4,091

*Provided by National Provision in the FY12 Consolidated Appropriation Bill

Congressional Interests

- Representative Dale E. Kildee D-MI-5
- Senator Carl Levin D-MI
- Senator Debbie Stabenow D-MI



Key Great Lakes Contacts

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www.lre.usace.army.mil/greatlakes/navigation



Questions?

