

# Great Lakes Navigation Stakeholder Meeting

## Shallow Draft Harbor Needs & Issues

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US Army Corps of Engineers  
**BUILDING STRONG**®



# Meeting Agenda

**Welcome; Introductory Remarks**

**LTC Mike Sellers**

**Self introduction of all participants**

**All**

**Shallow Draft Harbor Funding & Needs**

**Mike O'Bryan**

- **Funding Process and Trends**
- **2015 Accomplishments**
- **2016 Program Summary**
- **2017 President's Budget**
- **Water Level Impacts**
- **Funding Alternatives**
- **Stakeholder Involvement**

**Great Lakes Small Harbor Coalition**

**Chuck May**

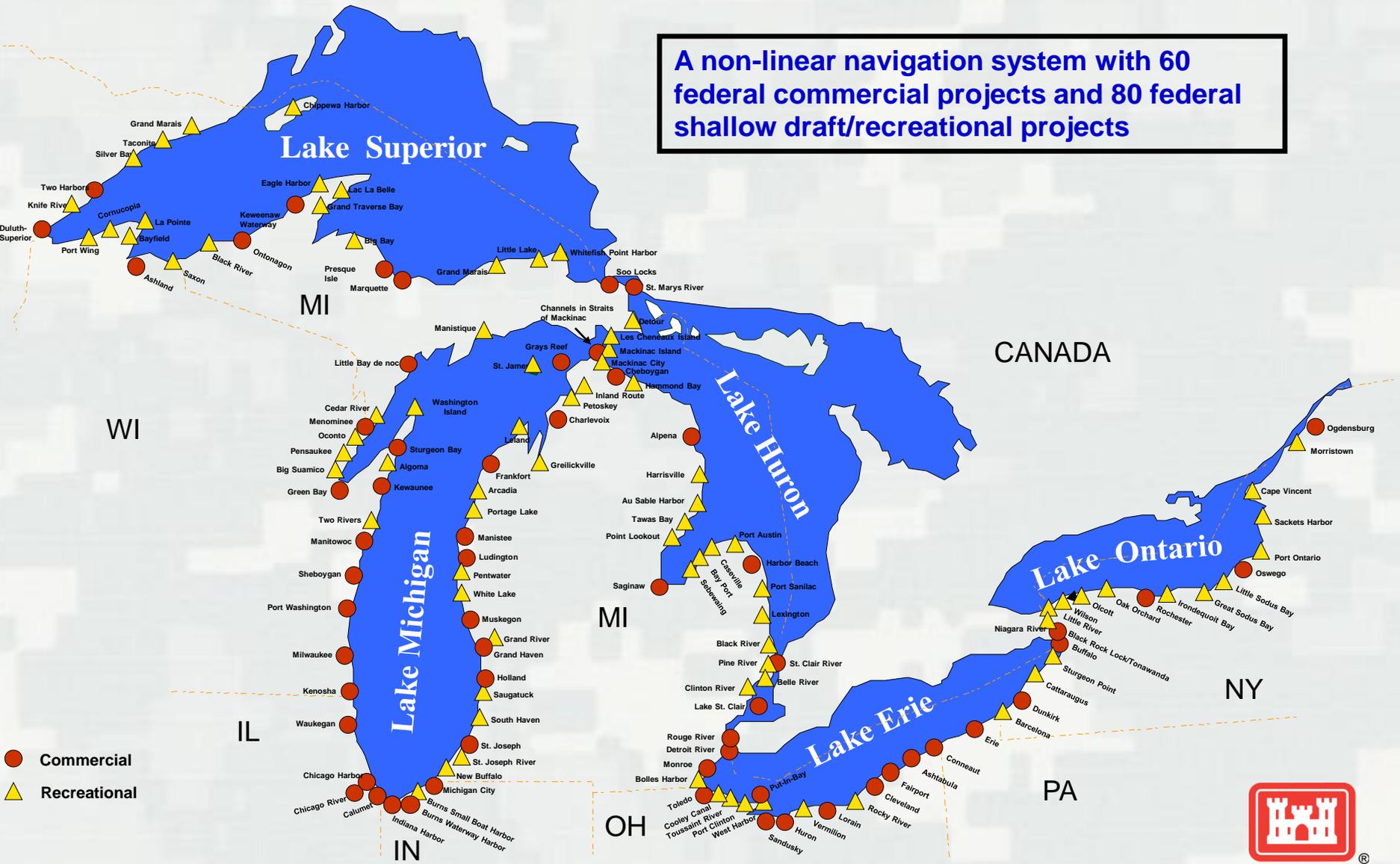
**Stakeholder Feedback—Open Discussion**

**All**



# Federal Projects on the Great Lakes

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



- Commercial
- ▲ Recreational



# Federal Budget Process

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- The Corps submits budget requests for all federal harbors (commercial and recreational) with operation & maintenance needs
- With the limited funding available, operations and maintenance funding for deep draft navigation projects usually takes priority over shallow draft/recreational harbors
- Subsistence harbors and harbors that support ferries, commercial fishing or the US Coast Guard are given a higher priority than strictly recreational harbors.



# Corps Efforts on Recreational Harbors

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- Conditions surveys of all recreational harbors each year; results posted on web
- Structure inspections
- Updating signs
- Minor repairs that affect safety – for example, safety ladders
- Occasional technical assistance/advice



# FY 15 Great Lakes Navigation Program

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\$115.7M Great Lakes Navigation Operations & Maintenance

## Key Items

\$46.2M in Dredging (21 projects – 3.5M cubic yards)

\$10.3M in Dredged Material Management

\$8.65M in Soo Asset Renewal

\$1.0M Emergency Funding – Oct 31, 2014 Storm  
Dredging – Muskegon, MI

Total FY15 Program \$116.7M



# FY16 Corps Funding Status

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- Congress passed the FY16 Consolidated Appropriations Act; enacted Dec 18, 2015.
- The FY16 Appropriations bill included FY16 President's Budget with some adjustments, plus additional O&M funds for ongoing work – to be allocated by USACE HQ

## Additional Funding for Ongoing Work

- |                                     |         |
|-------------------------------------|---------|
| - Navigation Maintenance            | \$23.5M |
| - Deep-draft harbor and channel     | \$250M  |
| - Small, remote, or subsistence nav | \$48M   |



# FY16 Corps Additional Funding Criteria

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- Criteria established by Congress for allocation of national FY16 O&M funding:
  - Complete ongoing work to maintain authorized widths and depths
  - Particular emphasis on places with a Coast Guard presence
  - Enhance national, regional, or local economic development
  - Promote job growth or international competitiveness
  - Risk of imminent failure or closure
  - Tonnage, exports, value of cargo



# FY16 Projects Funded from Additional Funds for Ongoing Work (\$32.9M)

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\$14M Dredging

Additional funds for:

- Duluth, MN
- Green Bay, WI
- Saginaw, MI
- Calumet, IL

New funding for:

- Alpena, MI
- Lorain, OH
- Fairport, OH
- Monroe, MI
- Manistique, MI

\$10.9M Soo Asset Renewal

\$1.3M Chicago Lock Repairs

\$6.2M Structure Repairs (Ludington, Muskegon, Waukegan, Sandusky, **Barcelona**, Grand Haven)

Funding was received for 1 recreational harbor (Barcelona)



# FY 16 Great Lakes Navigation Program

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\$142.8M Great Lakes Navigation Operations & Maintenance

## Key Items

\$59.2M in Dredging (30 projects – 4.4M cubic yards)

\$8.6M in Dredged Material Management

\$14.6M in Soo Asset Renewal

\$2.3M Chicago Lock Repairs

\$7.9M Structure Repair by Contract



# FY16 PBUD + Work Plan Dredging (\$59.2M)

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Duluth-Superior +  
Green Bay +  
Erie  
Indiana Harbor  
Holland  
Grand Haven  
Saginaw River +  
Ludington  
Toledo  
Presque Isle  
Rouge River  
Manistee  
Conneaut  
Sandusky  
Cleveland

Alpena  
Fairport  
Huron  
Waukegan  
Burns Harbor  
Monroe  
Rochester  
St. Joseph  
Muskegon  
Calumet +  
Ontonagon  
Lorain  
Manistique  
Manitowoc  
Oswego

Red – received  
additional funding  
in workplan



# FY16 Dredging Funding and Dredging Requirements



# FY 17 Great Lakes Navigation President's Budget

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\$102.8M Great Lakes Navigation Operations & Maintenance

## Key Items

\$38.4M in Dredging (20 projects – 3.2M cubic yards)

\$8.2M in Dredged Material Management

\$5.9M in Soo Asset Renewal



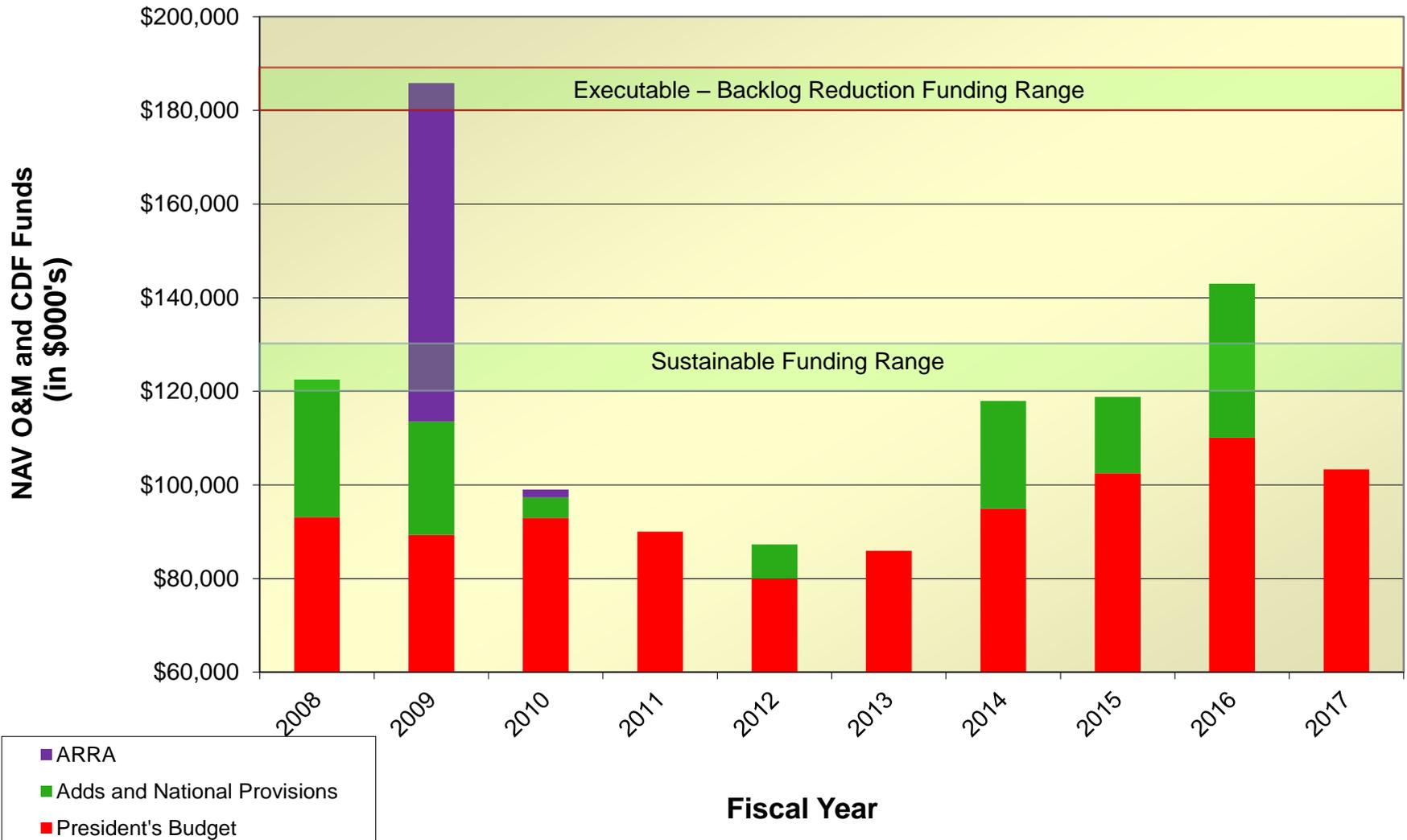
# FY17 PBUD Dredging Projects

- Duluth-Superior
- Detroit River
- Green Bay
- Ashtabula
- St. Joseph
- Holland
- Grand Haven
- Burns Waterway
- Buffalo
- Keweenaw Waterway
- Indiana Harbor
- Sandusky
- Channels in Lake St. Clair
- Saginaw River
- Toledo
- Cleveland
- Calumet
- Waukegan
- Sturgeon Bay
- Fairport

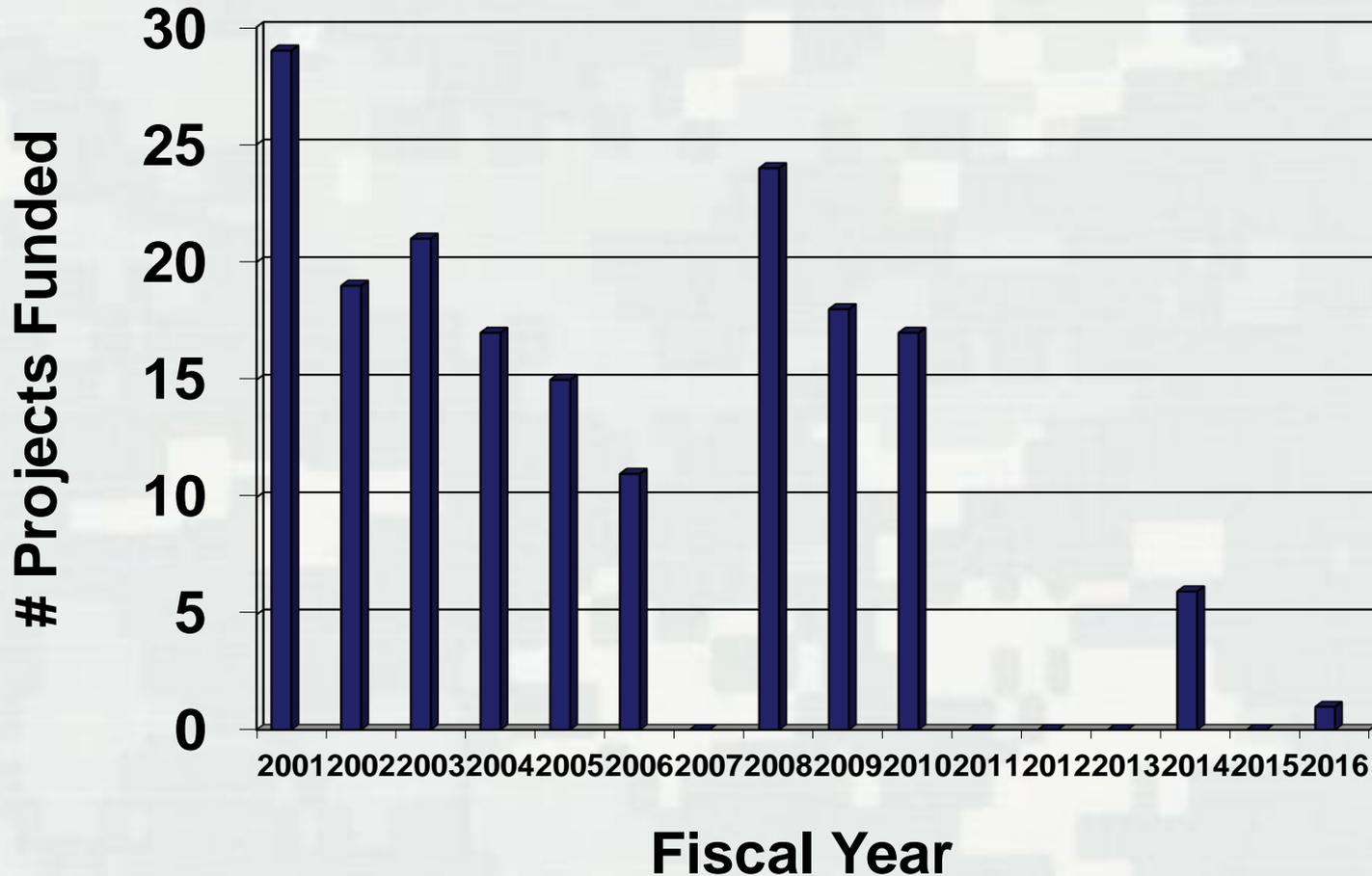




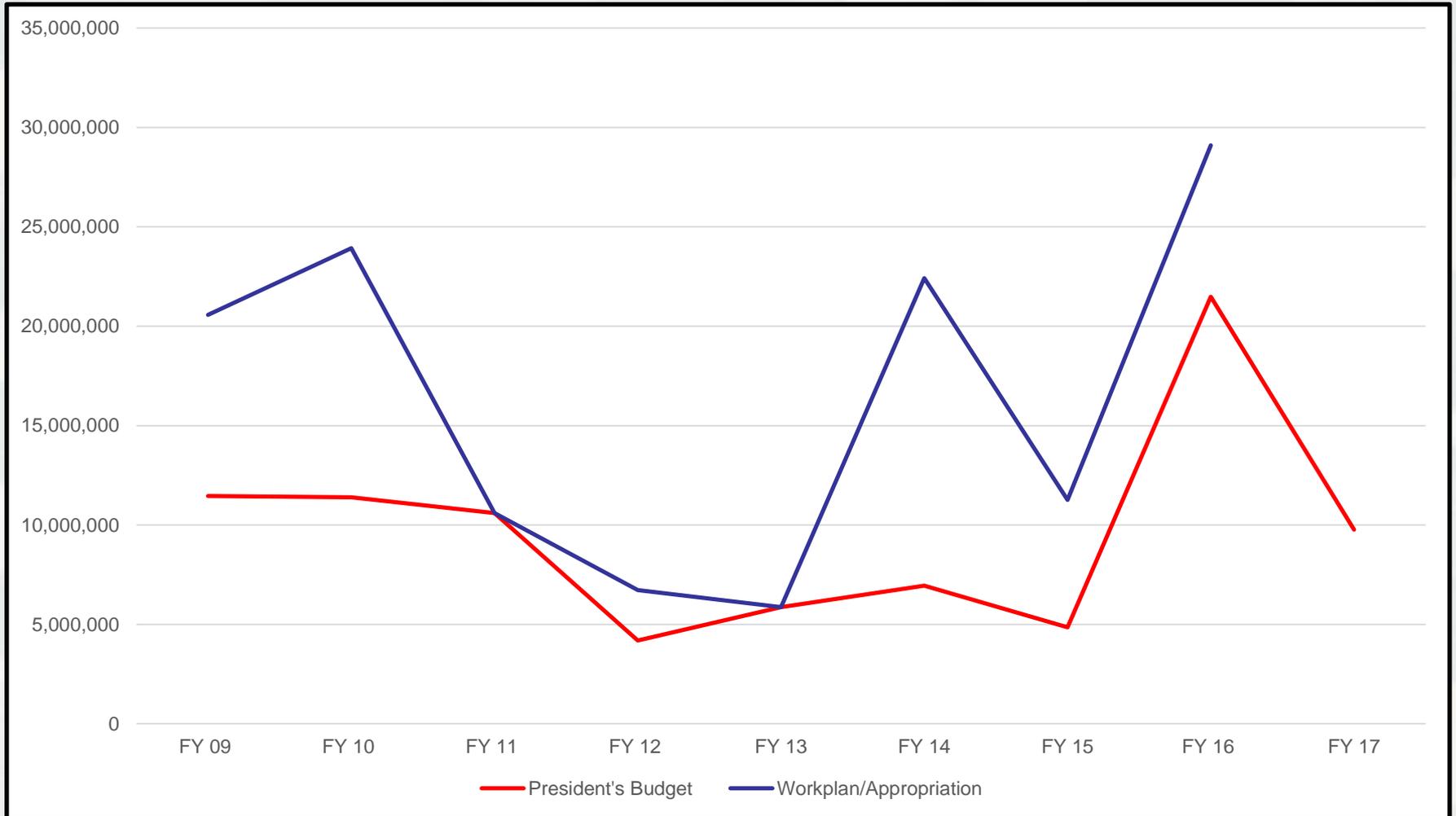
# GL Navigation Funding History



# Historical Shallow Draft/Recreational Harbor Funding



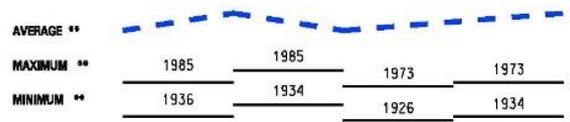
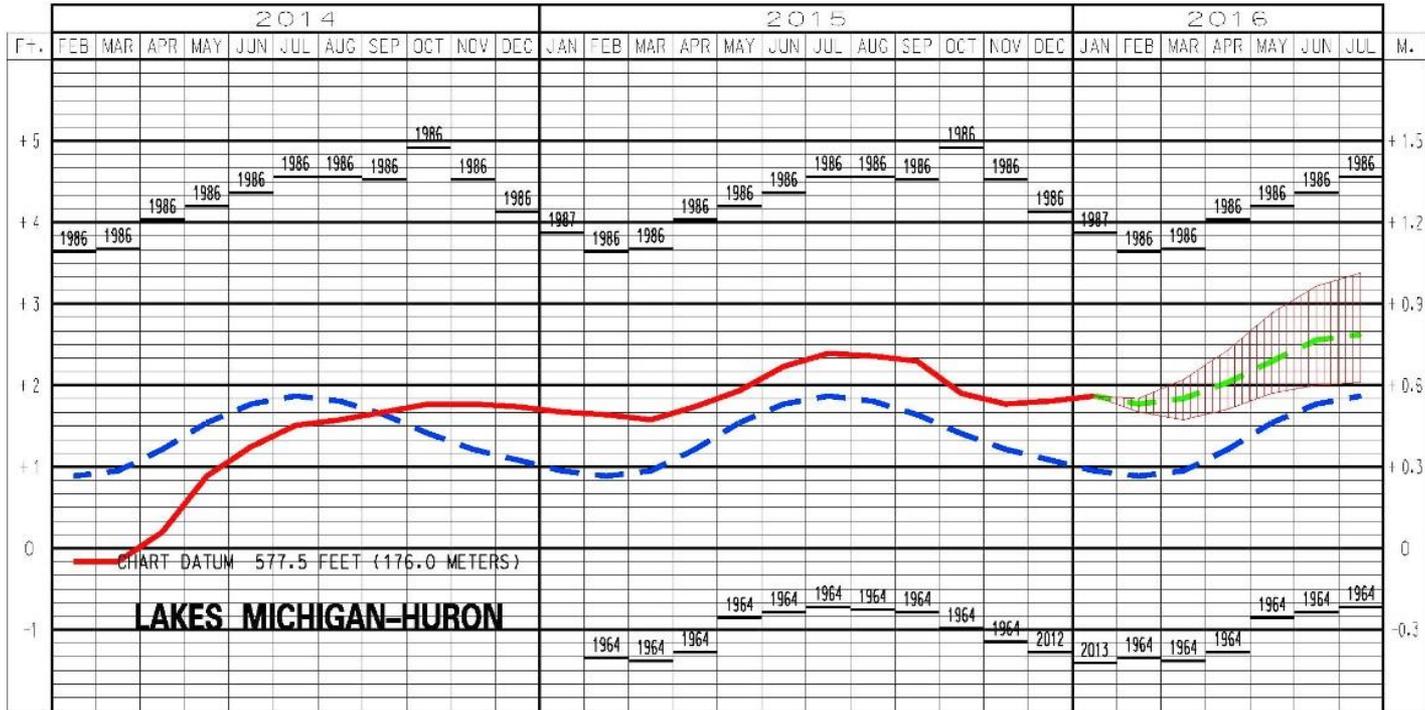
# Historical Funding Great Lakes Low Use Projects (<1M Tons)



# Great Lakes Water Levels



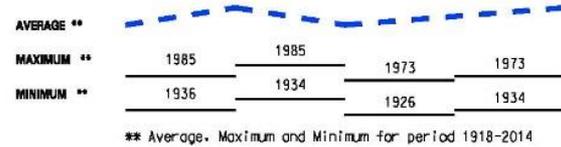
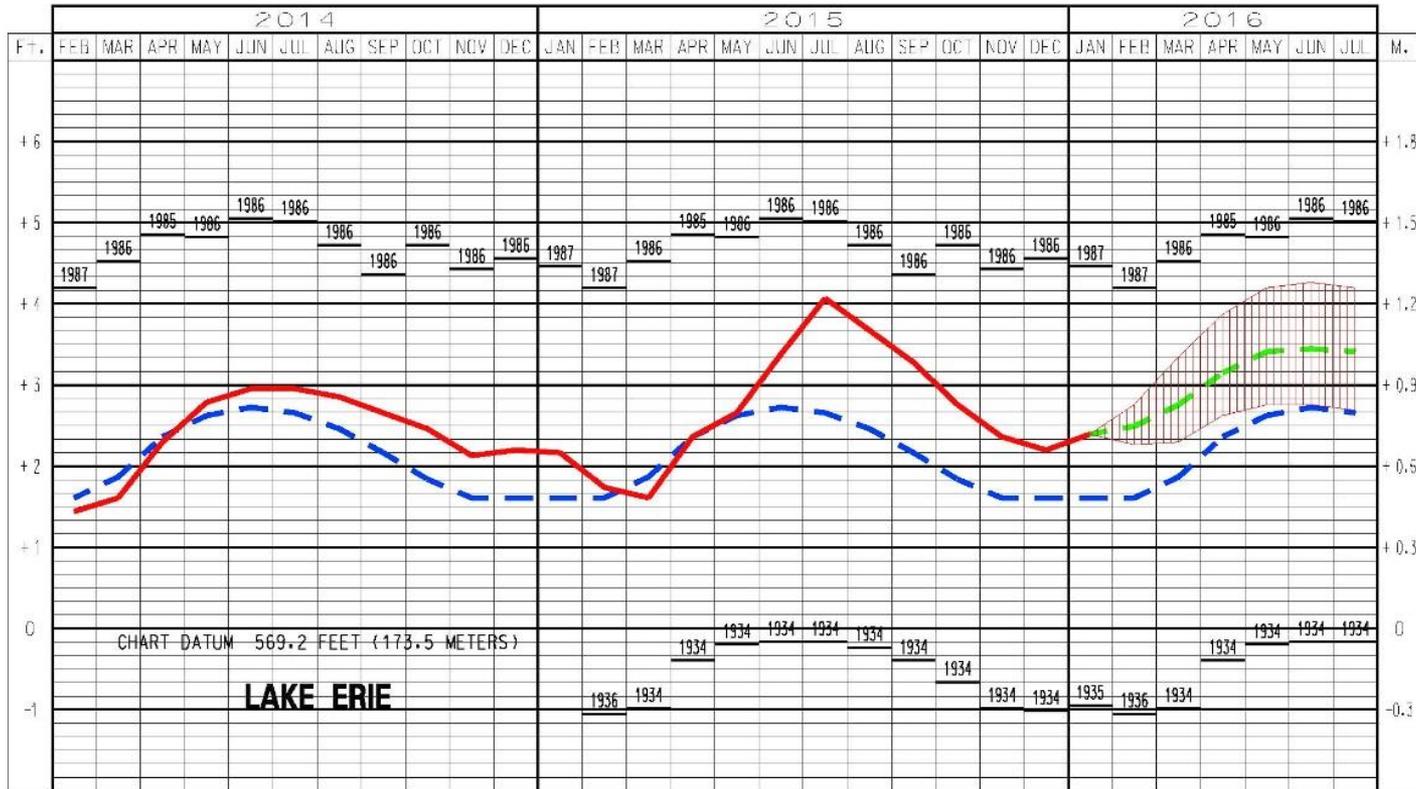
## LAKES MICHIGAN-HURON WATER LEVELS - FEBRUARY 2016



\*\* Average, Maximum and Minimum for period 1918-2014



# LAKE ERIE WATER LEVELS – FEBRUARY 2016



# Water Levels on Great Lakes

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- All of the Great Lakes except Lake Ontario are currently at or above average and above their water levels of a year ago.
- With the recent rise in water levels, coastal bluffs are beginning to erode again after nearly a decade of low water and apparent stability.
- Reports of significant erosion on Lakes Superior and Michigan
- Low water levels over the past decade allowed offshore bottom profile to quietly erode.
- Now with increased lake levels, waves now have access to bluffs and dunes.



# Coastal Bluff Erosion

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*Lake Michigan coastal erosion near New Buffalo, MI*

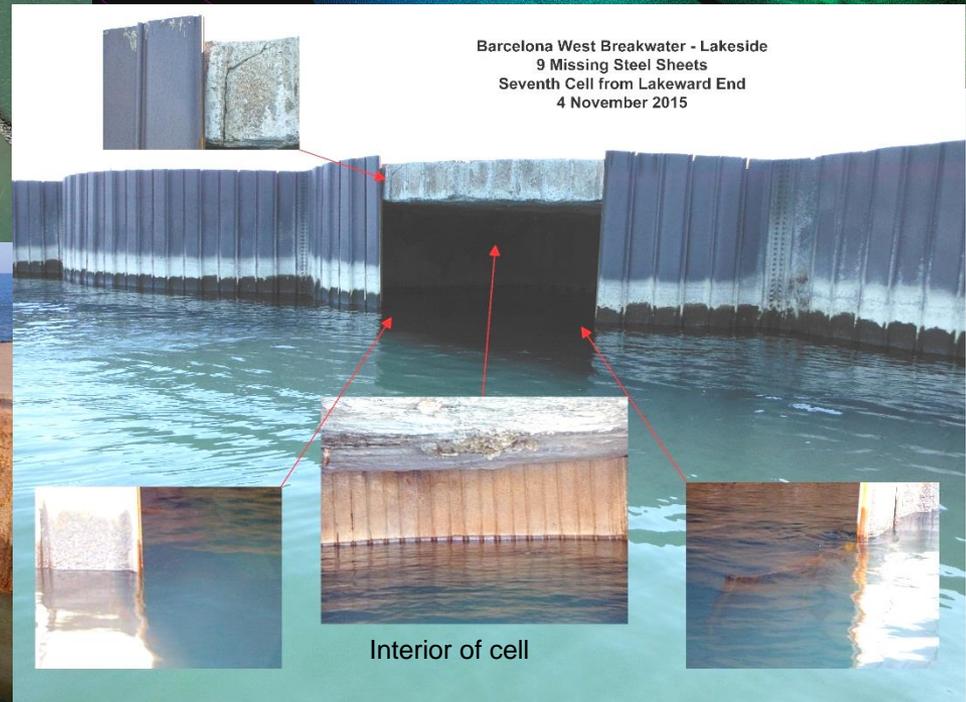
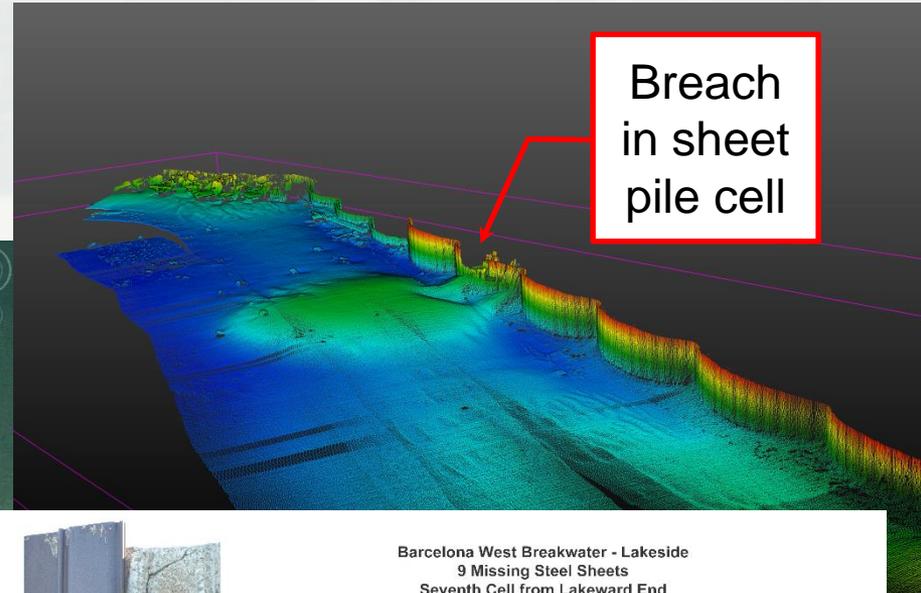


*Lake Superior coastal erosion near Paradise, MI*



# Barcelona Harbor, NY

Cellular sheet pile failure was caused by storms of 29 OCT – 02 NOV. Complete loss of internal fill down to water line left the concrete cap suspended only by edge friction. Closed the structure to public access due to danger of collapse.



# Ludington Nose Pier Repair



*Settlement due to loss of fill*



*Exposed / Deteriorating Foundation*



*Cracking between steel sheeting and concrete*



# Waukegan North Pier Repair



*Exposed / Deteriorating Concrete  
and Foundation*



# Grand Haven Pier Repair



# Portage Lake Revetment



*Sink holes indicate settlement  
behind revetment/loss of fill*



# Oswego Harbor Structure Repair



Ribbon Cutting Ceremony



Finished Project with View of Eastern End



Finished Project with Dolosse at Western End

# Recreational Harbor Success Stories

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Port Washington: \$950K funded in FY14 Corps budget  
City has obtain \$1M in funding from grants – providing to Corps through contributed funds process; additional work will be done in spring 2016

Portage Lake – contributed funds agreement in process for repair of revetment

Barcelona Harbor, NY – funds received in the FY16 workplan to begin repairs on structure that blew out in late 2015.

City of Buffalo – Bird Island structure/walkway repair; obtained grant funds and provided to Corps through contributed funds process

Hurricane Sandy funds – close to \$200M in total to GL



# Alternatives to Corps funded dredging

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- 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.



# Harbor Fact Sheets



US Army Corps  
of Engineers.



## Barcelona Harbor, NY

### Harbor Features

- > Located on Lake Erie in the town of Westfield, Chautauque County, New York.
- > Authorization: River & Harbor Act of 1945
- > Shallow draft recreational harbor
- > Project depths are 10 feet in the entrance channel and 8 feet in the harbor basin.
- > The harbor is protected by the east and west breakwaters with a total length of 1,730 feet.
- > Other features include public transient slips and launching facilities
- > Major stakeholders include the town of Westfield, one private marina, commercial and charter fishing interests, a charter diving operation and the recreational boating community.



### Project Requirements

- > The harbor typically requires dredging every five to ten years.
- > Sandy supplemental funded dredging of approximately 71,000 cubic yards of material from storm impacted harbor areas was completed in summer 2014.
- > A section of steel sheet pile along the lakeside of the west breakwater unexpectedly failed in late October/early November 2015 resulting in a loss of fill material and inadequate support for the concrete cap. A subsequent storm in November 2015 resulted in the loss of the concrete cap and complete breach of the structure. Emergency repairs are required to repair the breach and prevent further unraveling of the structure. Repairs are planned for FY16.

### Consequences of Not Maintaining the Project

- > Potential safety issues for recreational boating community
- > Potential functional loss of Harbor of Refuge
- > Negative economic impacts, locally and regionally

### Transportation Importance

- > Harbor of Refuge
- > Supports 9 charter fishing boats generating approximately \$73,500 in net income annually. Also supports 2 licensed commercial fishing boats and a chartered diving operation.

## U.S. Army Corps of Engineers Fiscal Year (FY) 2015, 2016 and 2017 Barcelona Harbor, New York - Project Requirements and President's Budget (\$1,000)

Work Package	FY15 Requirement	FY15 Appropriation	FY16 Requirement	FY16 Appropriation	FY17 Requirement	FY17 President's Budget
Maintenance Dredging - Primary						
EAD/Coast West Breakwater Repair			1,900	650	650	
Sandy Supplemental Maintenance Dredging						
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>1,900</b>	<b>650</b>	<b>650</b>	<b>0</b>

### Congressional Interests

- Representative Tom Reed R-NY-23
- Senator Kirsten Gillibrand D-NY
- Senator Charles Schumer D-NY

# Harbor Fact Sheets are Key Communication Tool

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- Identifying the economic and social impacts related to maintaining the authorized project – jobs, local and regional economic impacts
- Identify other critical factors – subsistence harbor, support to Coast Guard, what infrastructure protects
- Project requirements – Dredging and structural repair needs



# New Web Navigation Project Tool

U.S. Army Corps of Engineers, Detroit District, Harbors

Interactive Project Map

Click here for Civil Works Interactive Project Map

Algoma Harbor

Algoma Harbor is primarily a recreational boat traffic harbor located on the west shore of Lake Michigan. The project has 2,000 feet of maintained channel as well as a 1,102 foot long north pier and a 1,530 foot long south breakwater. [See More](#)

1 Algoma Harbor 2 Alpena Harbor 3 Arcadia Harbor 4 Ashland Harbor 5 Au Sable Harbor 6 Bay Port Harbor 7 Bayfield Harbor 8 Big Bay Harbor

<http://www.lre.usace.army.mil/>



# Stakeholder Involvement

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- ✓ We need your input on critical system requirements at your harbor or project
- ✓ Operations Chiefs from each District are available any time to discuss your particular issues and concerns
- ✓ Webpage is an important mode of communication: meetings, presentations, fact sheets
- ✓ Updated Fact Sheets with FY16 appropriation and FY17 President's Budget are on our website
- ✓ Annual Great Lakes Navigation Stakeholder meeting April 14

[www.lre.usace.army.mil/greatlakes/navigation](http://www.lre.usace.army.mil/greatlakes/navigation)



# Key Great Lakes Contacts

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# Questions?

