Great Lakes Navigation Update

June 15, 2018

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."

BUILDING STRONG®

and Taking Care of People!

GREAT LAKES & OHIO RIVER DIVISION

ISO-9001

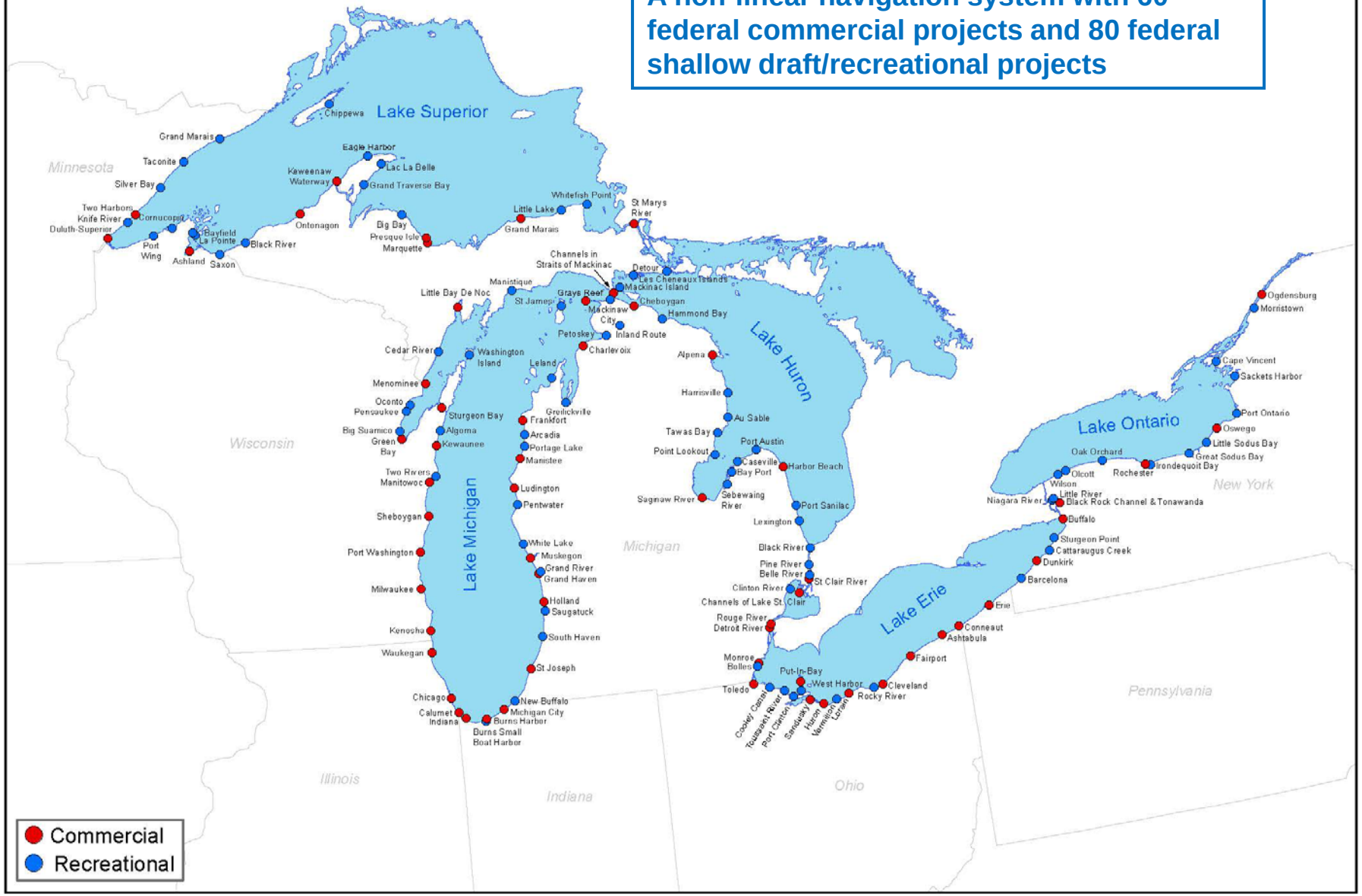
US Army Corps of Engineers ®

U.S.ARMY

US Army Corps of Engineers

Federal Harbors on the Great Lakes

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



FY17 GL Navigation President's Budget

+ Work Plan Funding

Great Lakes Navigation Operations & Maintenance
$102.7M + $51.8M = $154.5M

<u>Key Items</u>

- $38.4M + $10M in Dredging (31 projects: 3.2M + 0.73M cy)
- $8.86M in Dredged Material Management
- $9.6M in Soo Asset Renewal
- $30.7M in navigation structure repair (by contract)

FY 18 GREAT LAKES NAVIGATION PRESIDENT'S BUDGET

Great Lakes Navigation Operations & Maintenance
$106.23M

<u>Key Items</u>
$37.85M in Dredging (16 projects; 2.95M cy)
$10.9M in Dredged Material Management
$8.9M in Soo Locks Maintenance

US Army Corps of Engineers ®

U.S.ARMY

FY18 GL Navigation President's Budget

+ Work Plan Funding

Great Lakes Navigation Operations & Maintenance
$106.2M + $52.4M = $158.6M

Key Items

$37.9M + $17.8M in Dredging (40 projects: 16 + 24) 4.5M CY
$11.3M in Dredged Material Management
$15.8M in Soo Asset Renewal
$19.0M in navigation structure repair (by contract)

FY 19 GREAT LAKES NAVIGATION PRESIDENT'S BUDGET

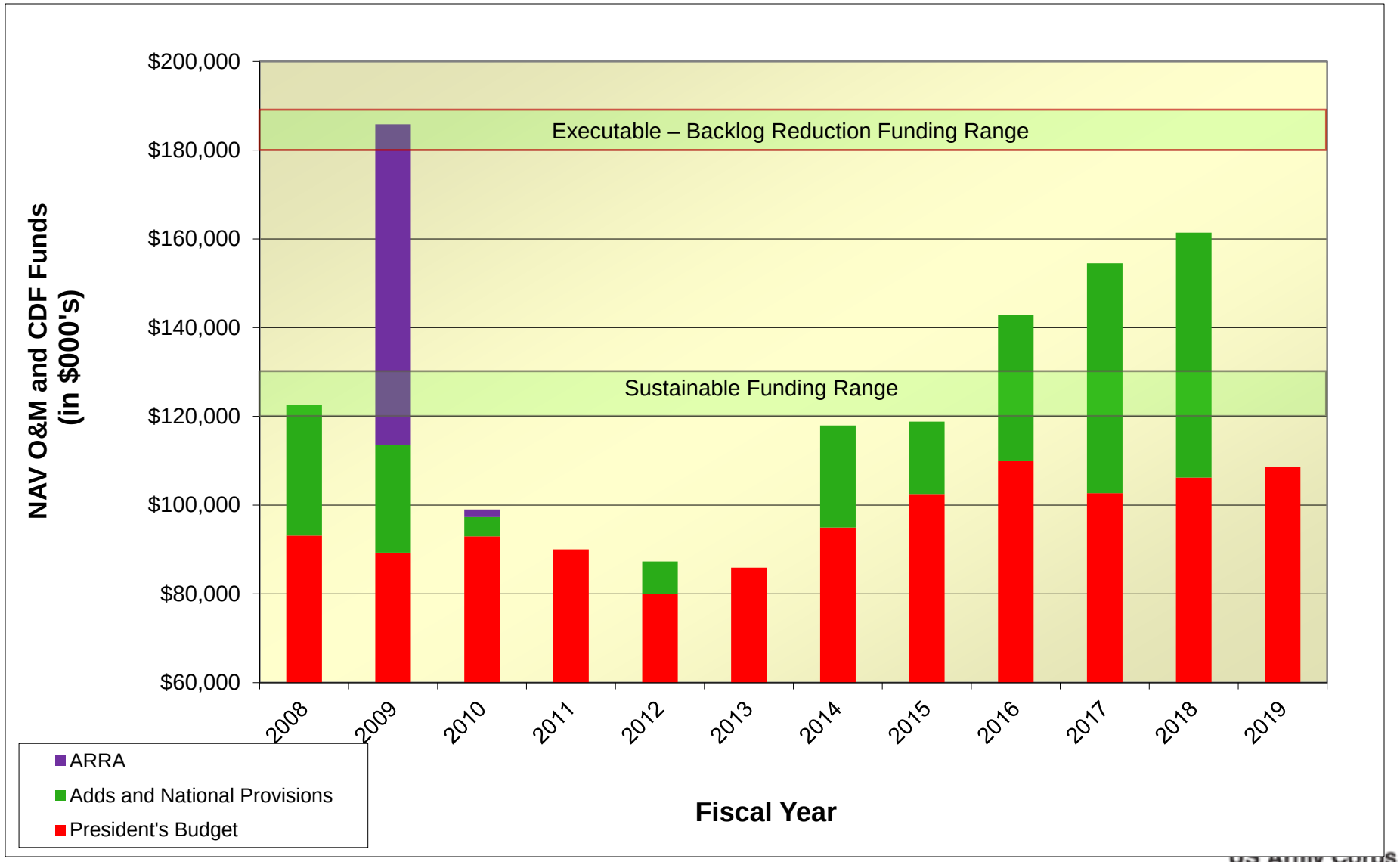
Great Lakes Navigation Operations & Maintenance
$108.7M

<u>Key Items</u>
$39.8M in Dredging (21 projects; 2.9M cy)
$10.6M in Dredged Material Management
$2.0M in Soo Locks Maintenance

US Army Corps of Engineers ®

U.S.ARMY

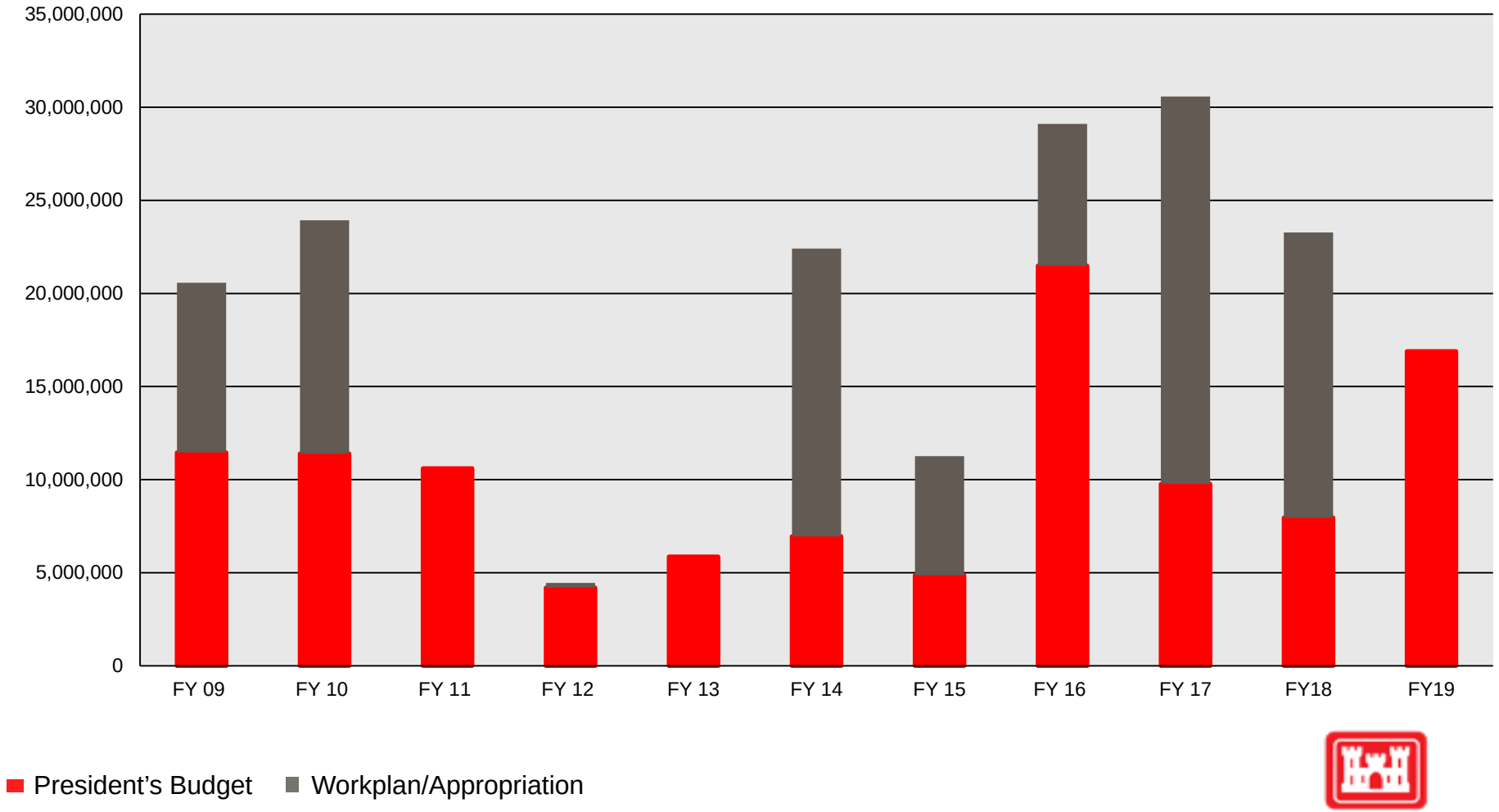
GL NAVIGATION FUNDING HISTORY



US Army Corps of Engineers ®

U.S.ARMY

HISTORICAL FUNDING
GREAT LAKES LOW USE PROJECTS (<1M TONS)



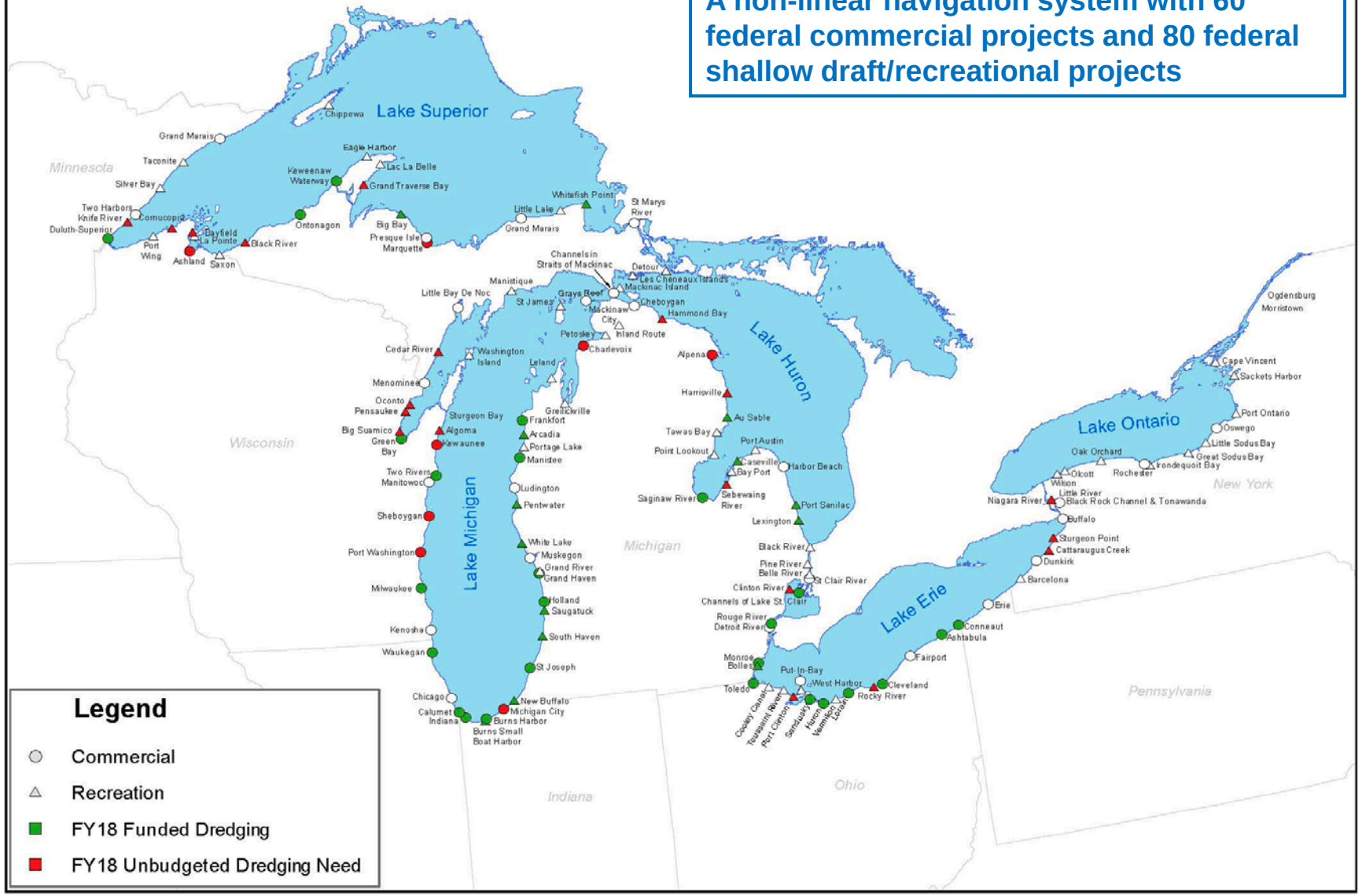
US Army Corps of Engineers ®

U.S.ARMY

FY18 DREDGING FUNDING AND REQUIREMENTS

US Army Corps of Engineers

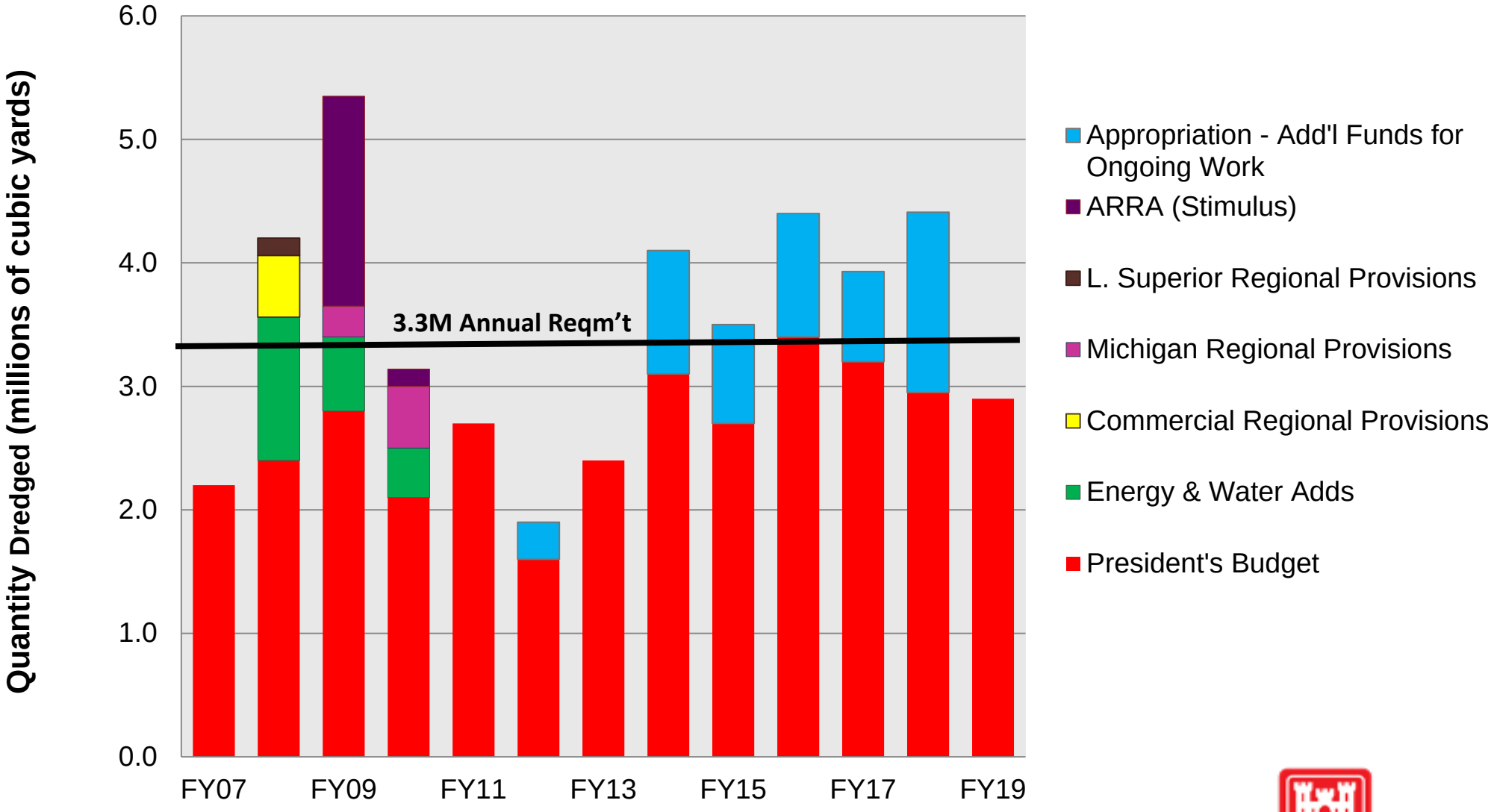
A non-linear navigation system with 60 federal commercial projects and 80 federal shallow draft/recreational projects



US Army Corps of Engineers ®

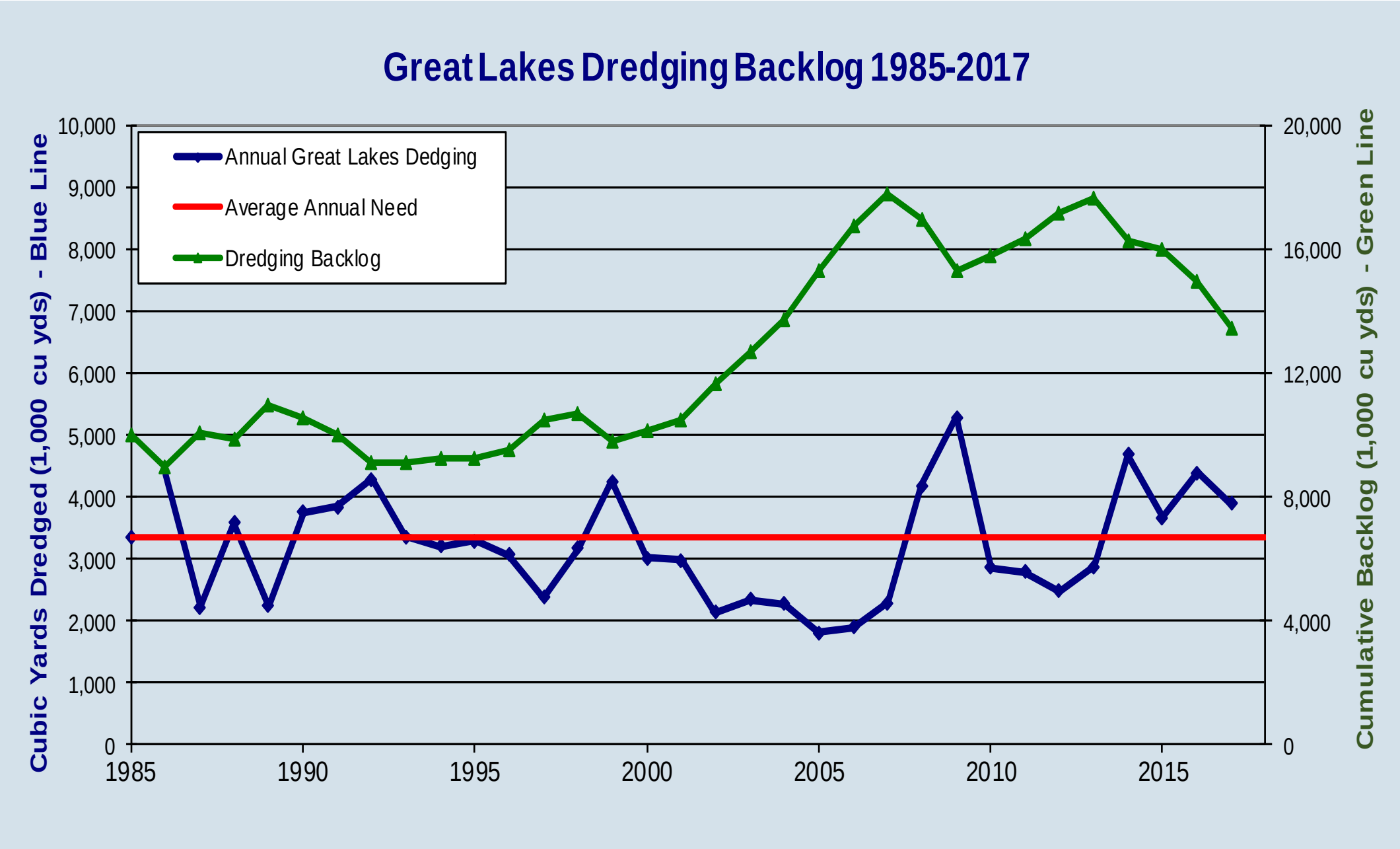
U.S.ARMY

DREDGING FUNDING TRENDS 2007 – 2019

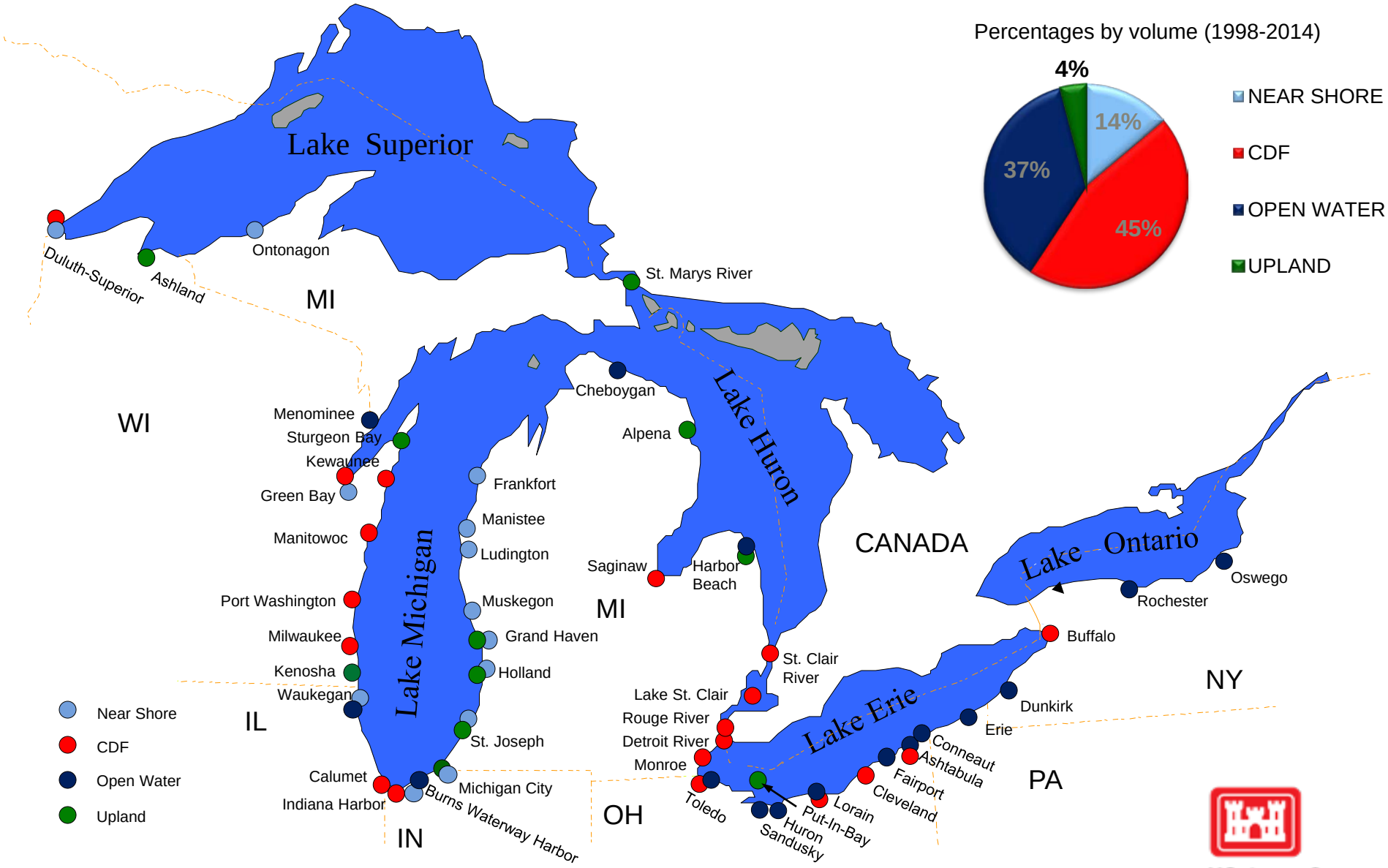


US Army Corps of Engineers ®

U.S.ARMY


Great Lakes Dredging Backlog 1985-2017
Annual Great Lakes Dedging
Average Annual Need
Dredging Backlog
Cubic Yards Dredged (1,000 cu yds) - Blue Line
Cumulative Backlog (1,000 cu yds) - Green Line
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
20,000
16,000
12,000
8,000
4,000
0
1985
1990
1995
2000
2005
2010
2015

Current Dredged Material Placement Methods

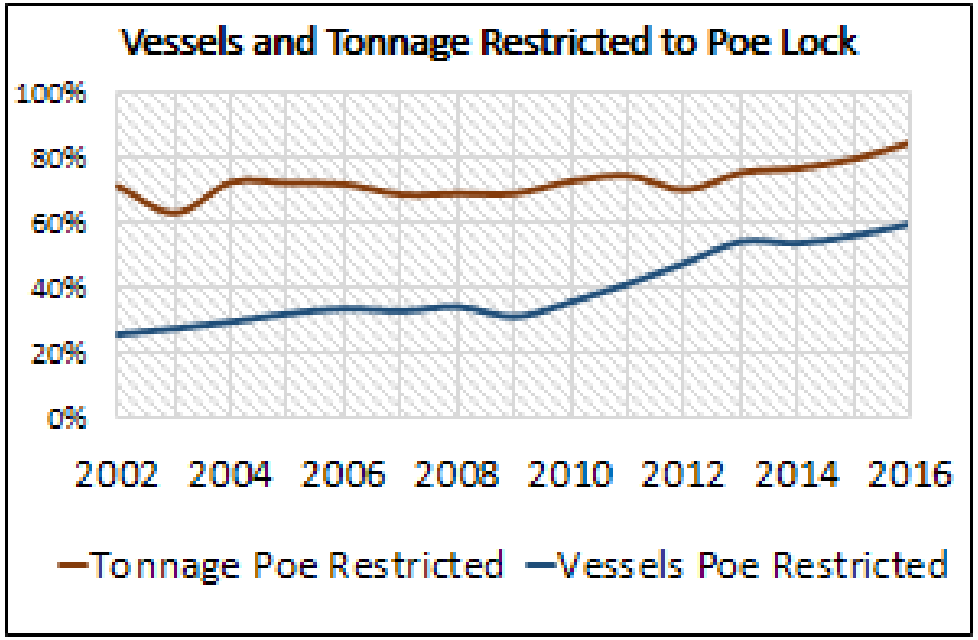


US Army Corps of Engineers ®

U.S.ARMY

THE SOO LOCKS
LYNCH PIN OF THE GREAT LAKES NAVIGATION SYSTEM

- 85% of the commercial commodities transiting the Soo Locks are limited by size to the Poe Lock
  - Aging and deteriorating infrastructure; unscheduled outages increasing
  - There is currently no redundancy for the Poe Lock
  - The economic impact of a 30-day unscheduled closure of the Soo Locks = $160M



- **Two major efforts are underway to improve reliability of the Soo Locks**
  1. **Maintain existing infrastructure through Asset Renewal Plan**
  2. **New lock with the same dimensions as the Poe Lock – Economic reevaluation required.**

US Army Corps of Engineers ®

U.S.ARMY

SOO LOCKS ASSET RENEWAL PLAN

Asset Renewal Plan will maximize reliability and reduce risk through 2035

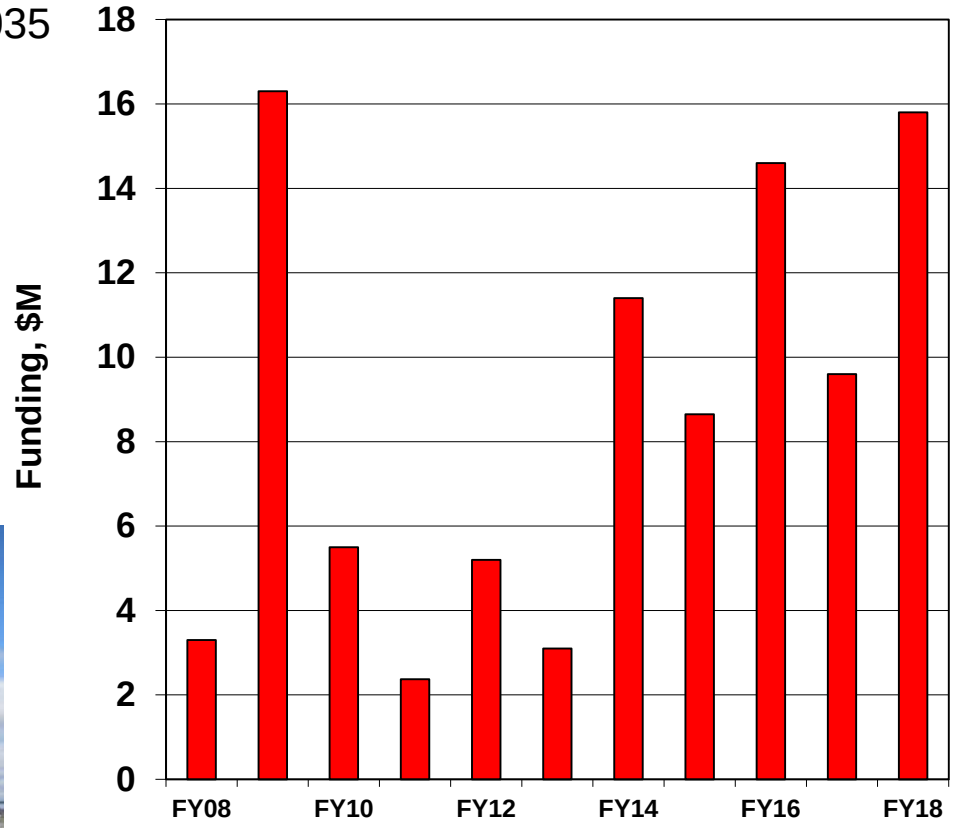
$102M funded to date through FY18.

2017/18 Work:

- MacArthur Lock Embedded Anchorages
- Steamplant Replacement Design
- Replace Stoplogs
- Poe Miter and Quoin Block Replacement
- West Center Pier Repair

Remaining key priorities:

- Poe Lock Gate 1 Replacement
- Steamplant Replacement
- New heavy lift crane
- Poe Gate 4 anchorages



US Army Corps of Engineers ®

U.S.ARMY

Great Lakes Navigation System

The GL system's savings over the next least costly mode of transportation → $3.6 Billion/year

- More competitive American steel
- Essential to sustaining U.S. auto industry
- Lower cost energy
- Lower cost concrete (construction)
- More competitive grain for export
- Less fuel consumption and greenhouse gas emissions
- Less congested highways/rails

US Army Corps of Engineers ®

U.S.ARMY