

GREAT LAKES NAVIGATION UPDATE

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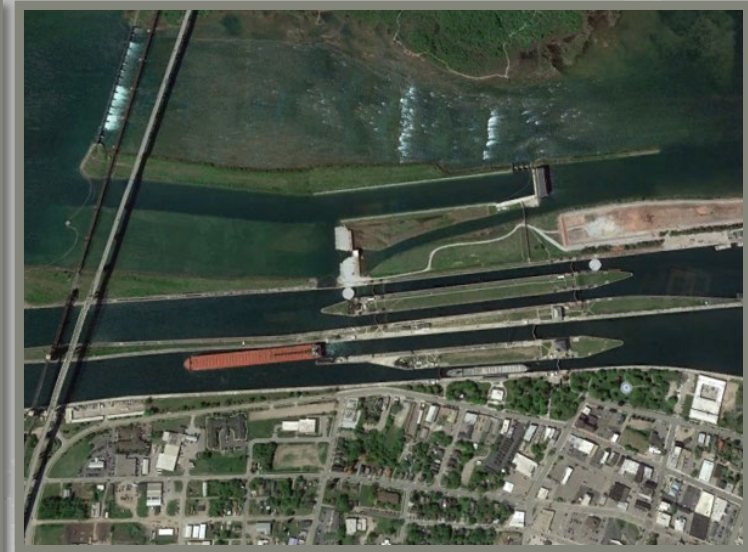
June 3, 2020

GL Dredging Team

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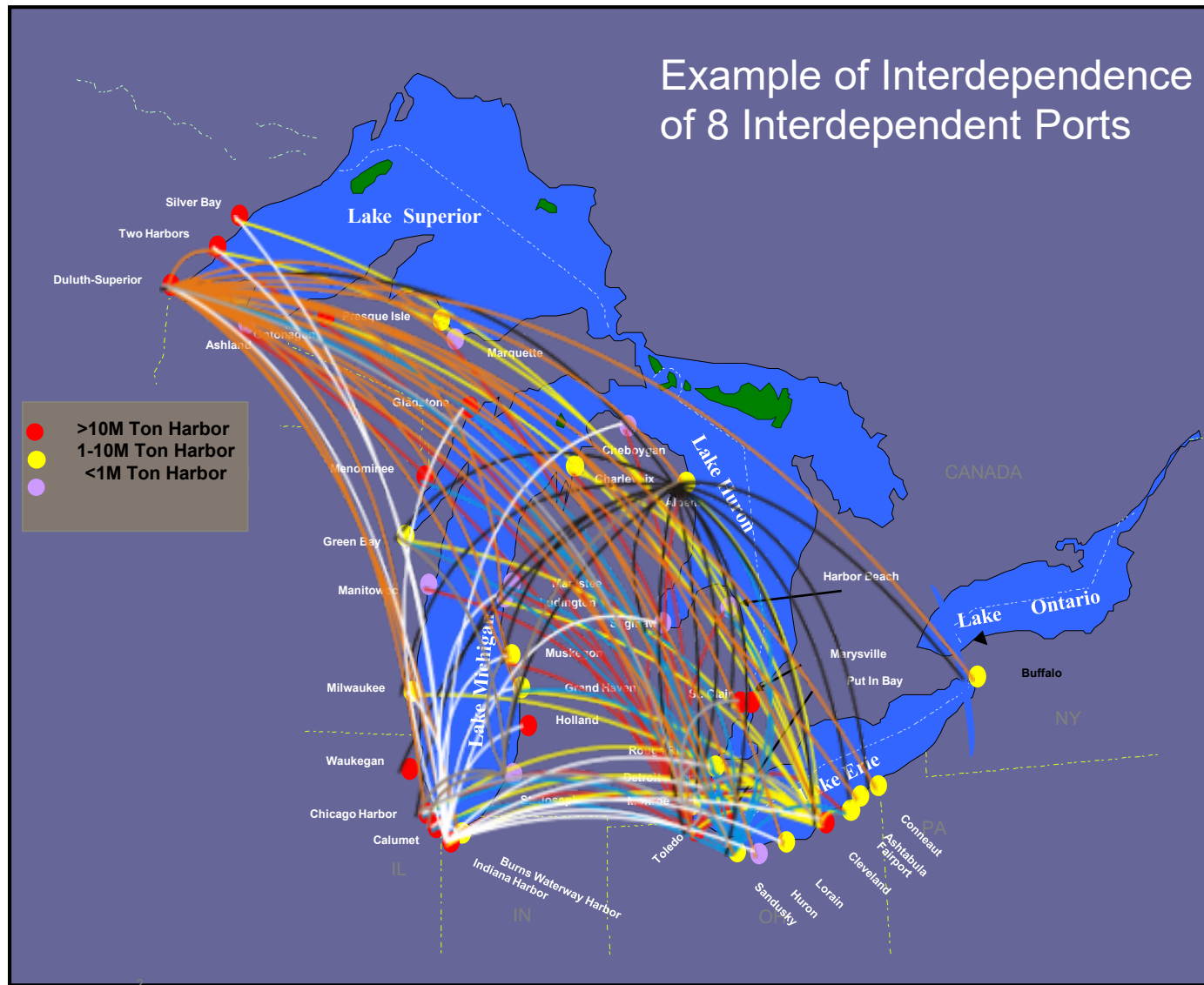
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GREAT LAKES NAVIGATION SYSTEM



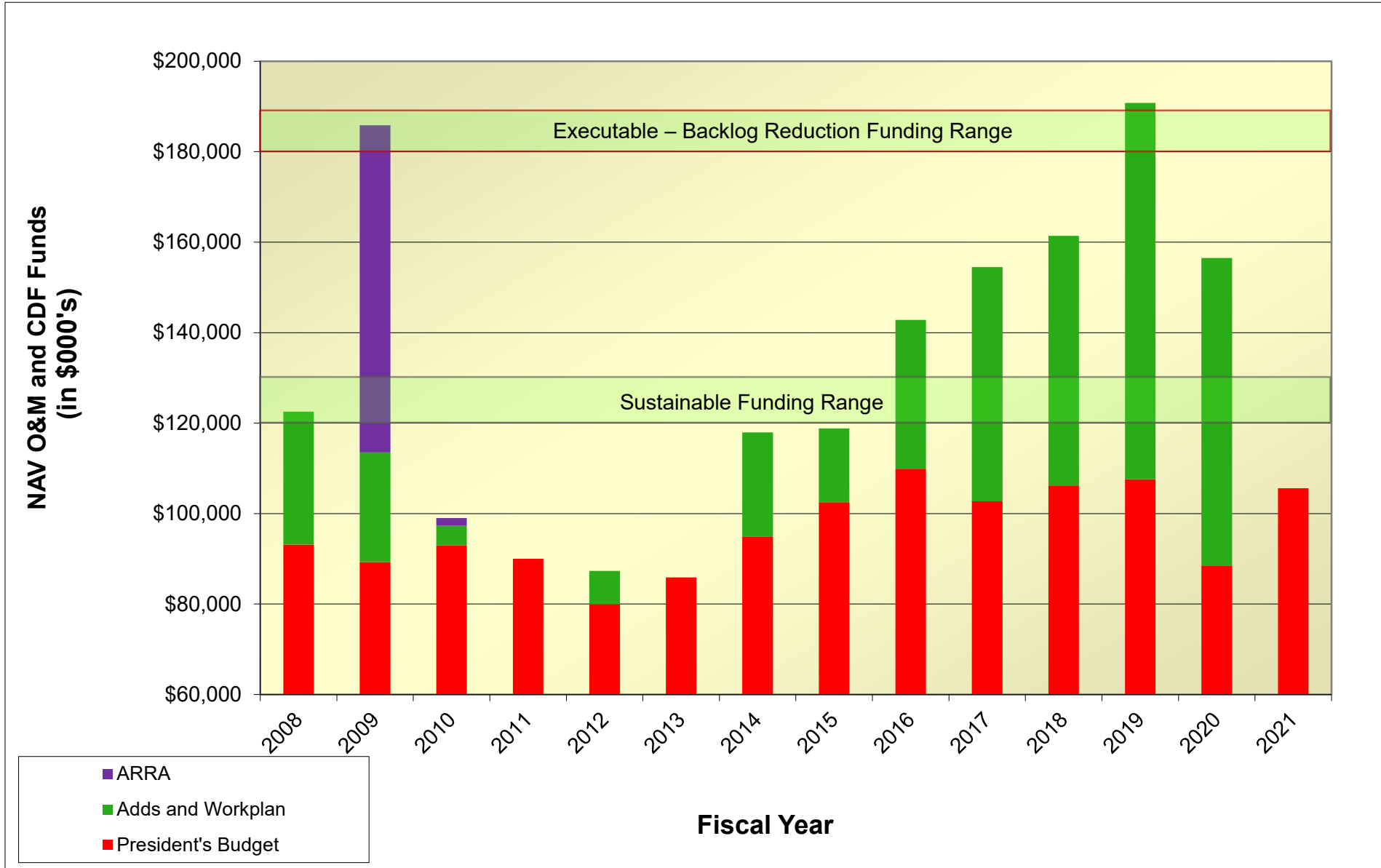
Example of Interdependence of 8 Interdependent Ports



- Non-linear complex system of interdependent
 - Commercial are ports dependent on each other
 - 95% of traffic is internal to the Great Lakes
 - System saves **\$3.9* Billion per year** over next least costly mode of transportation
- * Updating to incorporate latest information on overland rail capacity



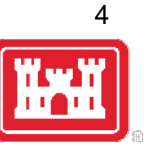
GL NAVIGATION FUNDING HISTORY





FY20 GREAT LAKES NAVIGATION PRESIDENT'S BUDGET

PRESIDENT'S BUDGET + WORKPLAN



Great Lakes Navigation Operations & Maintenance
\$88.4M + \$55.8M = \$146.2M

Key O&M Items

\$37.3M in Dredging (18 projects; 2.6M cy) (\$27.8M + **\$9.5M**)

\$11.4M in Dredged Material Management (\$6M + **\$5.4M**)

\$16.9M in Soo Locks Maintenance (\$2.6M + **\$14.3M**)

\$5.9M in Chicago Lock Maintenance

\$2.0M in Black Rock Lock Maintenance

\$20.3M in Navigation Structure Maintenance/Repair

Construction General

\$75.3M + \$50M = \$125.3M New Soo Lock

\$12.3M Indiana Harbor CDF Construction



FY21 GREAT LAKES NAVIGATION PRESIDENT'S BUDGET



Great Lakes Navigation Operations & Maintenance **\$104.8M**

Key O&M Items

\$37.1M in Dredging (16 projects; 3.1M cy)

\$5.9M in Dredged Material Management

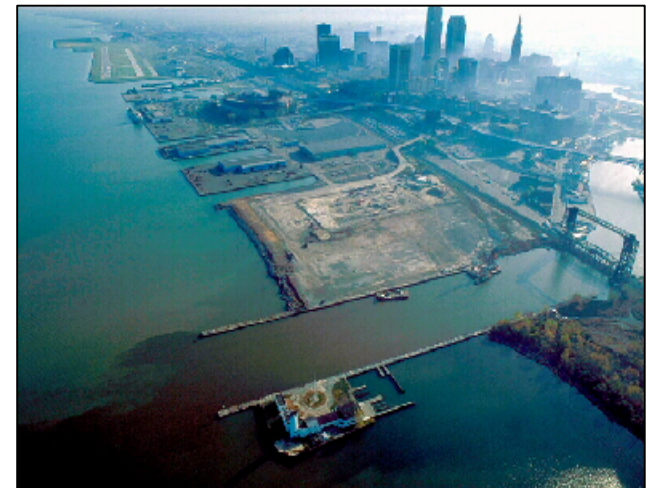
\$23.5M in Lock Operations & Maintenance

\$4.5M for Black Rock Lock Miter Gates

Construction General

\$123.2M New Soo Lock

\$16M Calumet CDF Construction





DREDGING



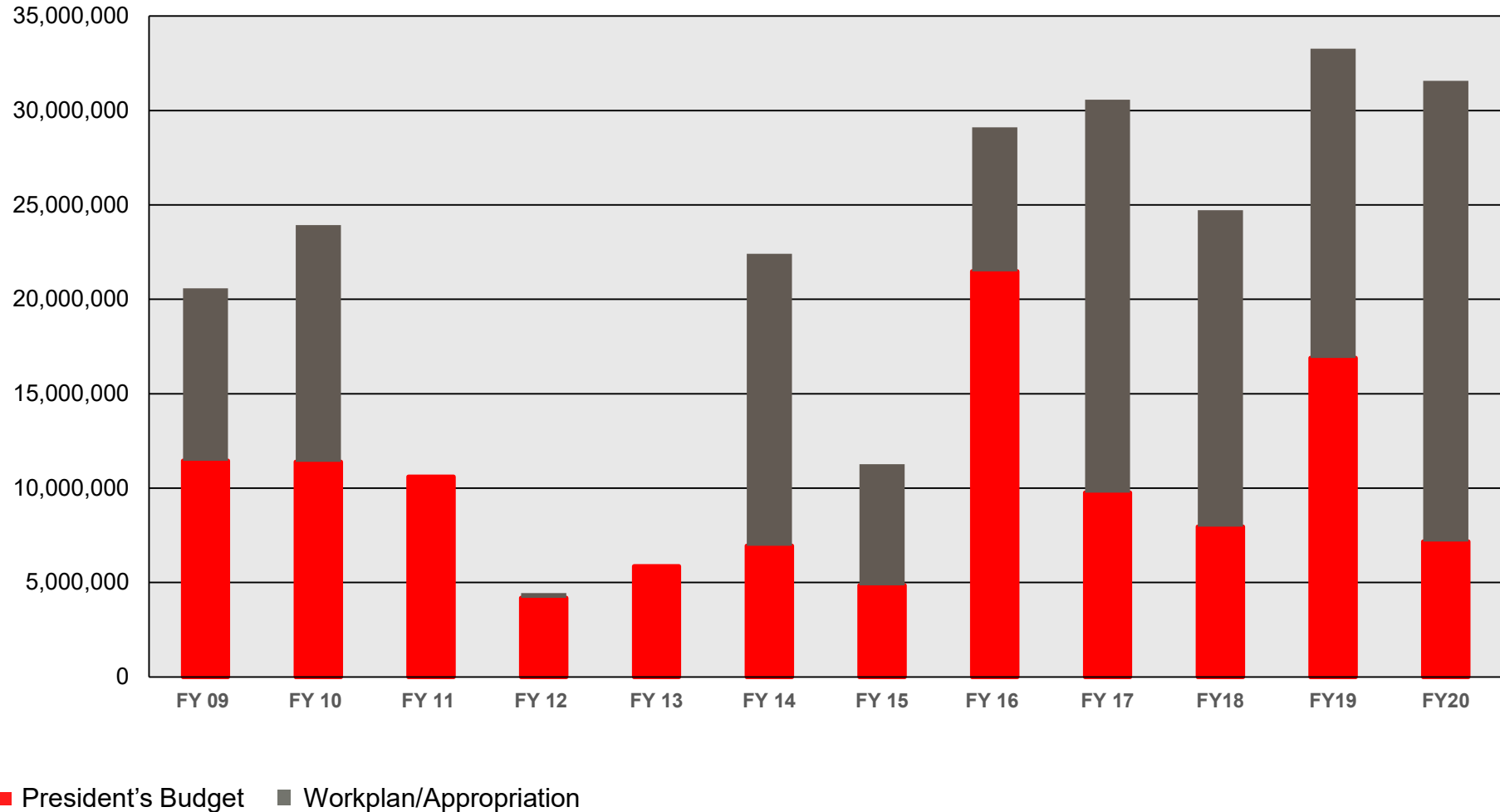


FY20 Dredging Funding and Dredging Requirements



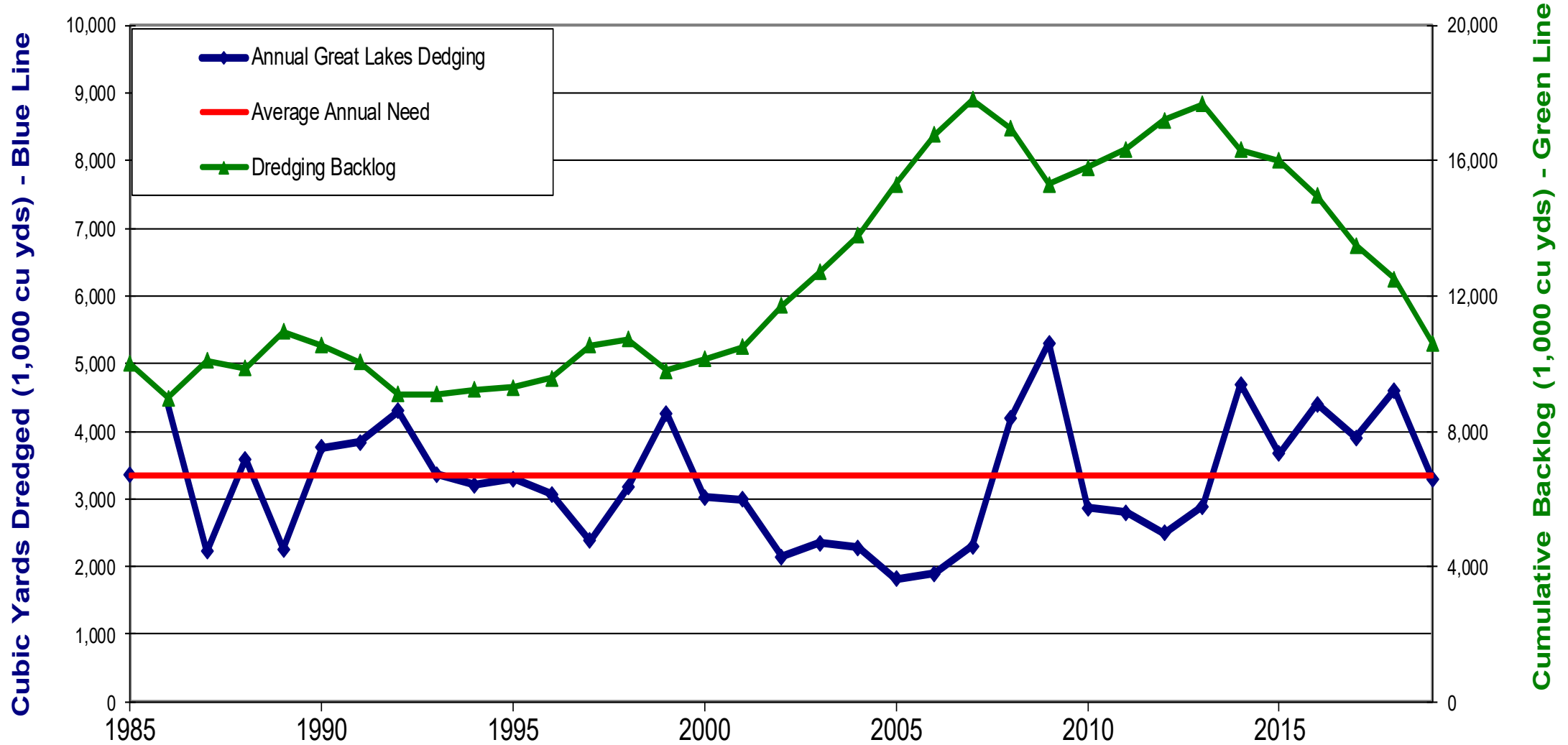


HISTORICAL FUNDING GREAT LAKES LOW USE PROJECTS (<1M TONS)

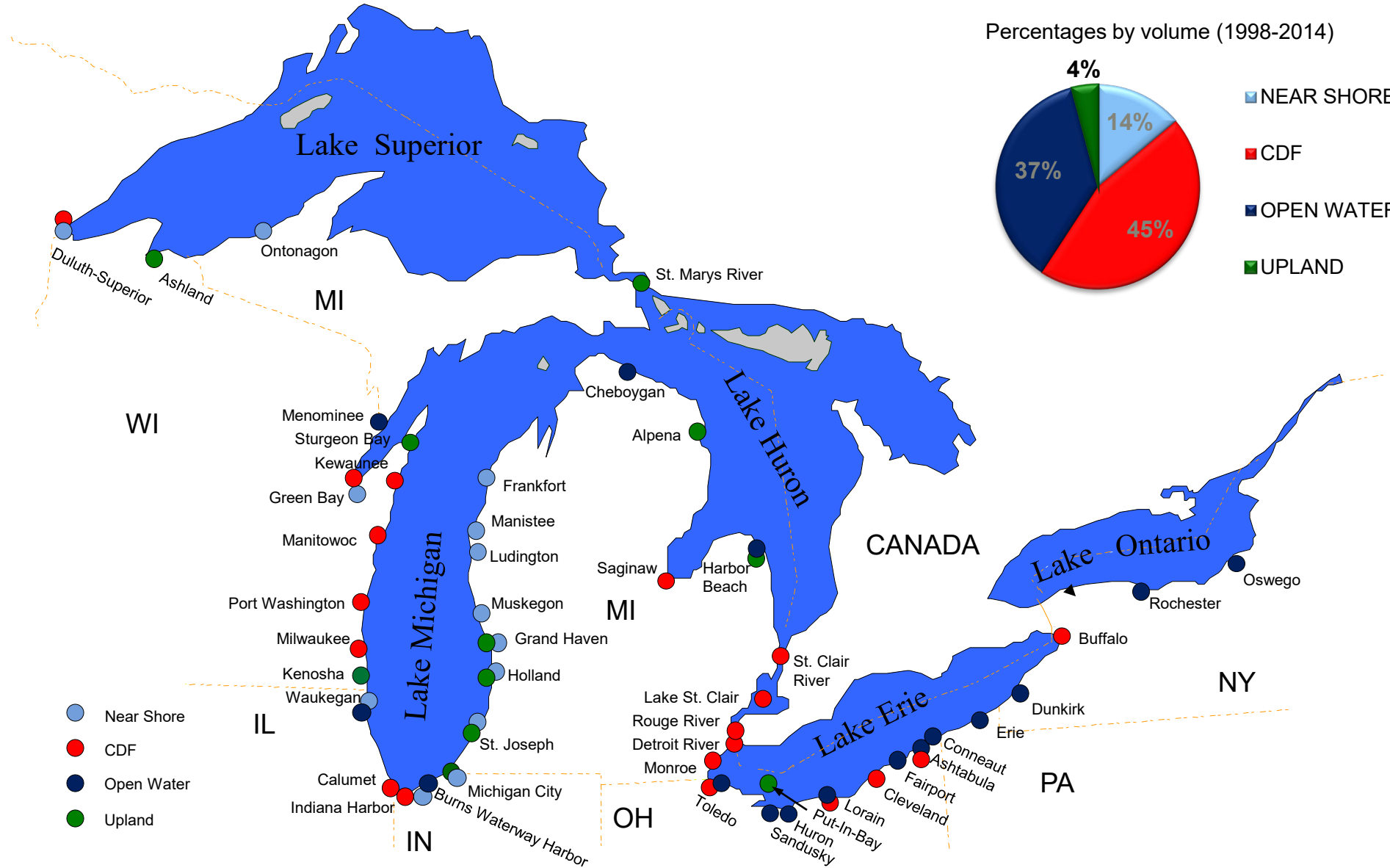




Great Lakes Dredging Backlog 1985-2019



Current Dredged Material Placement Methods





SOO LOCK RELIABILITY





MAINTAINING EXISTING SOO LOCKS FACILITY (O&M FUNDED)



O&M – Asset Renewal

- Higher cost component repairs and replacements (Asset Renewal) - \$117.5M thru FY20



FY20 Funded Work

- \$2.6M Poe Lock Gate 1 Repairs
- \$500K Poe Gate Sill Repairs
- \$4.4M Crane Replacement - Lock Maintenance
- \$8M Acquisition of Aquadigger to replace Nicolet - Strike Removal
- \$2.1M Hydropower Medium Voltage Breaker Replacement – Lock Power Supply

Winter Maintenance (Jan-Mar 2020)

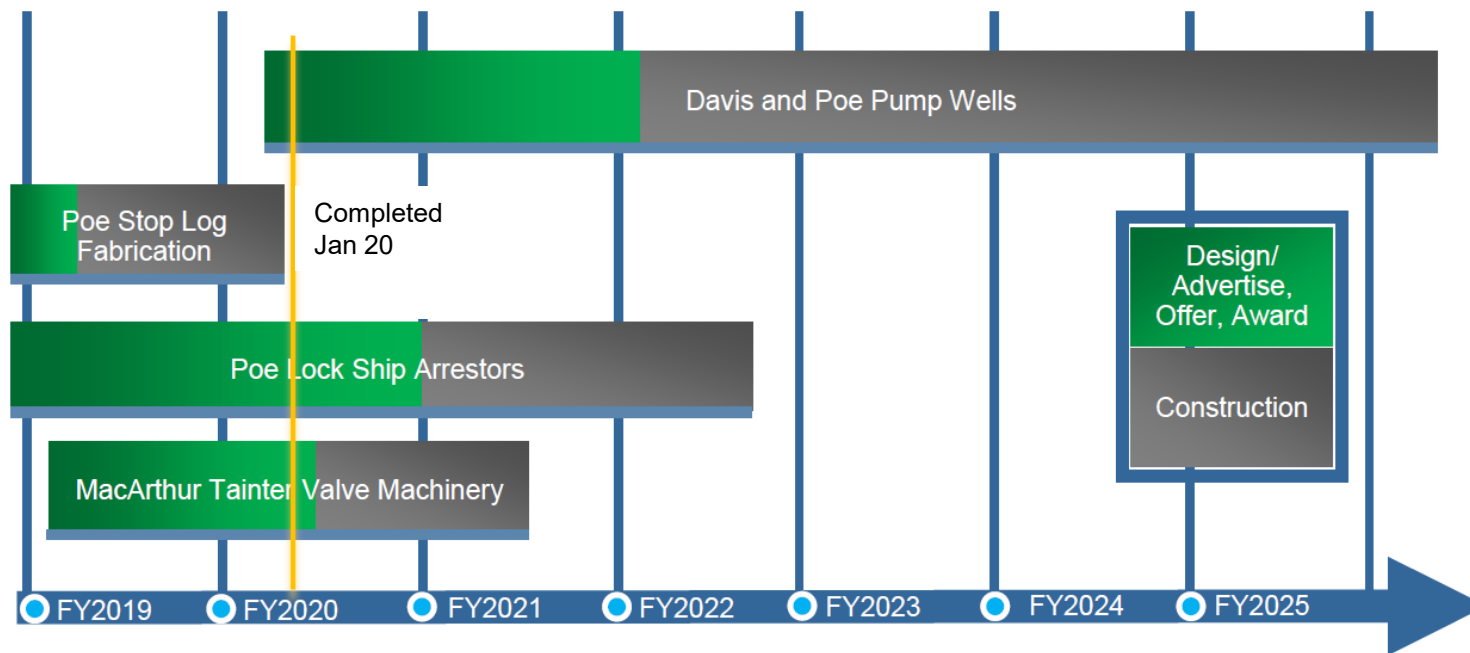
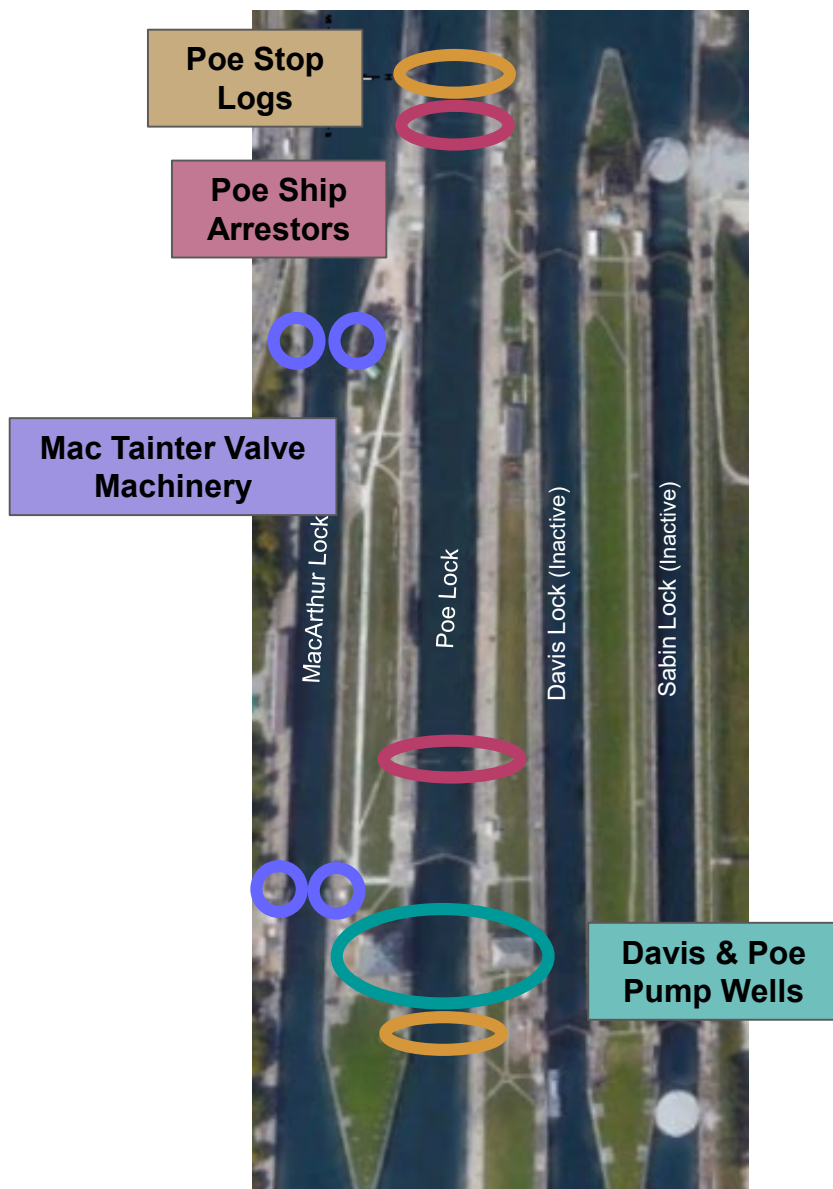
- Poe Lock Gate 1 Repairs – crack/diagonal repairs
- Poe Lock Gates 1 & 3 Sill Repairs – concrete spalling
- Poe Lock Gate 1 Emptying and Filling Valve Repair

FY21 Priorities

- MacArthur Lock Ship Arrestor Repairs
- Asset Renewal Priorities:
 - Poe Lock Gate 1 – final phase (repairs & coating replacement)
 - Poe Gate 4 – initial phase (crack repairs)
 - Center Dike Rehab (initial phase)



MAINTAINING EXISTING SOO LOCKS FACILITY (CG FUNDED)

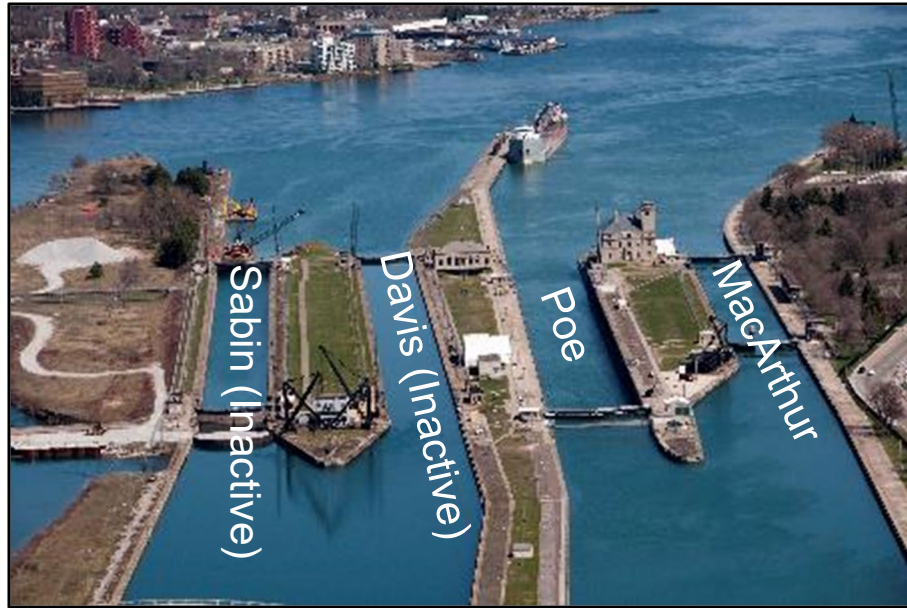


Davis and Poe Pumpwells (\$37.3M FY21 Capability)

- The pumpwell system currently services the Poe and Mac lock and will service the New Lock once constructed.
- Design revealed unacceptable safety and construction risk in rehabilitating 100 - 120 year old wells under operational buildings.
- Due to comparable costs a new well is being constructed instead of rehabilitating existing wells.

PROPOSED NEW SOO LOCK

Existing



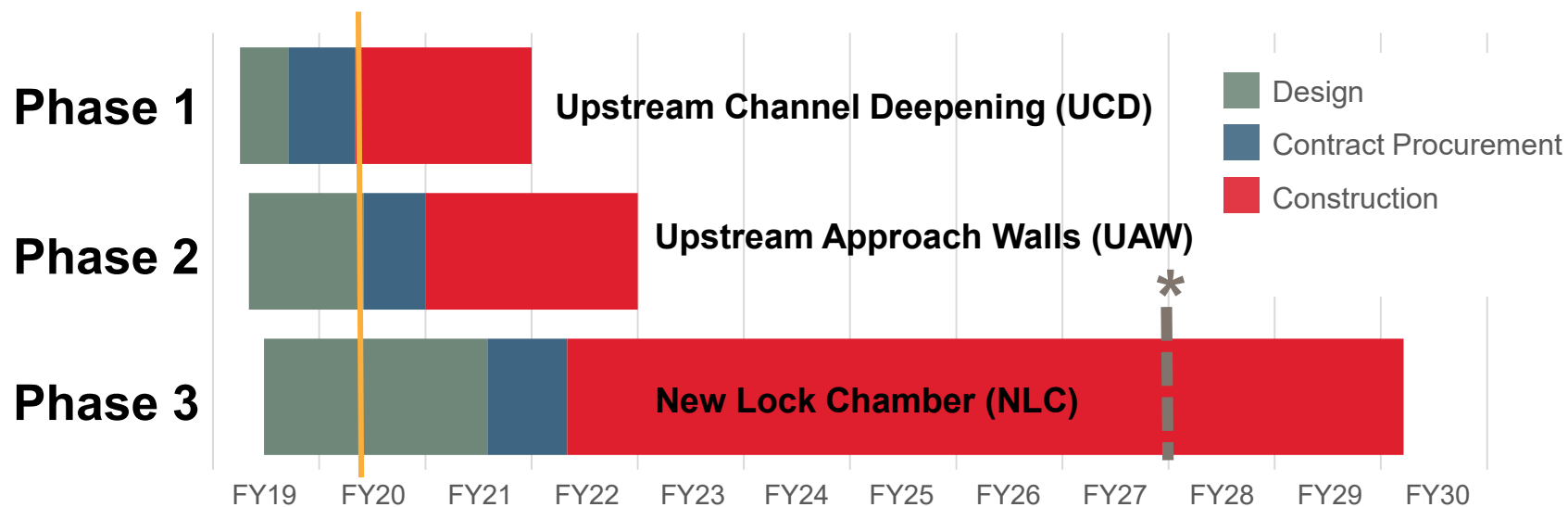
Proposed



New lock will have **same dimensions** as existing Poe Lock (1200 ft. length by 110 ft. width and a depth of 32 ft.)

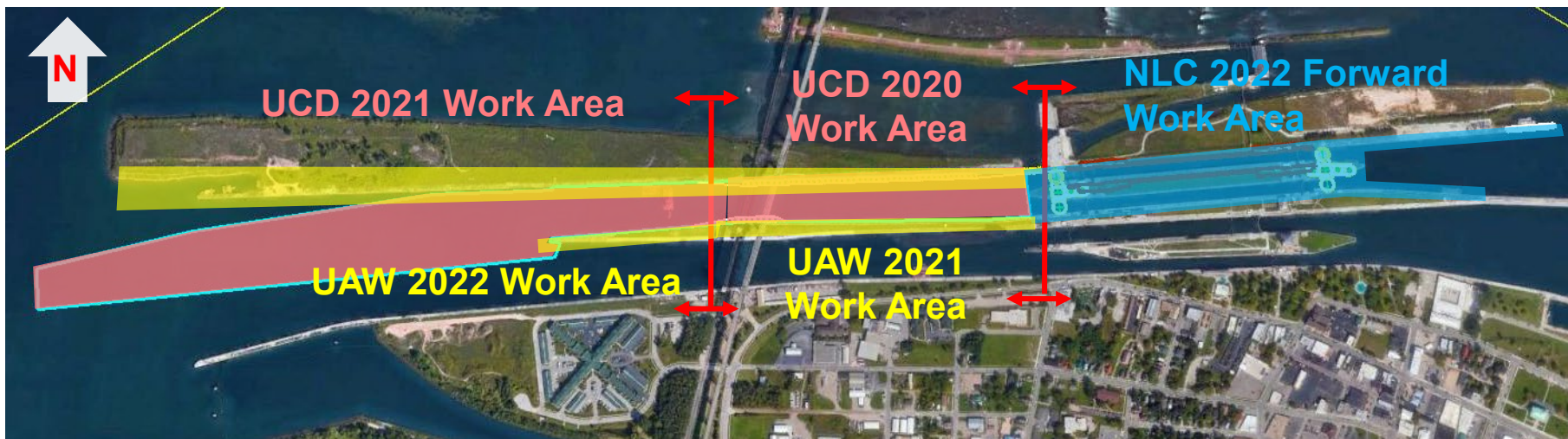


NEW LOCK STATUS



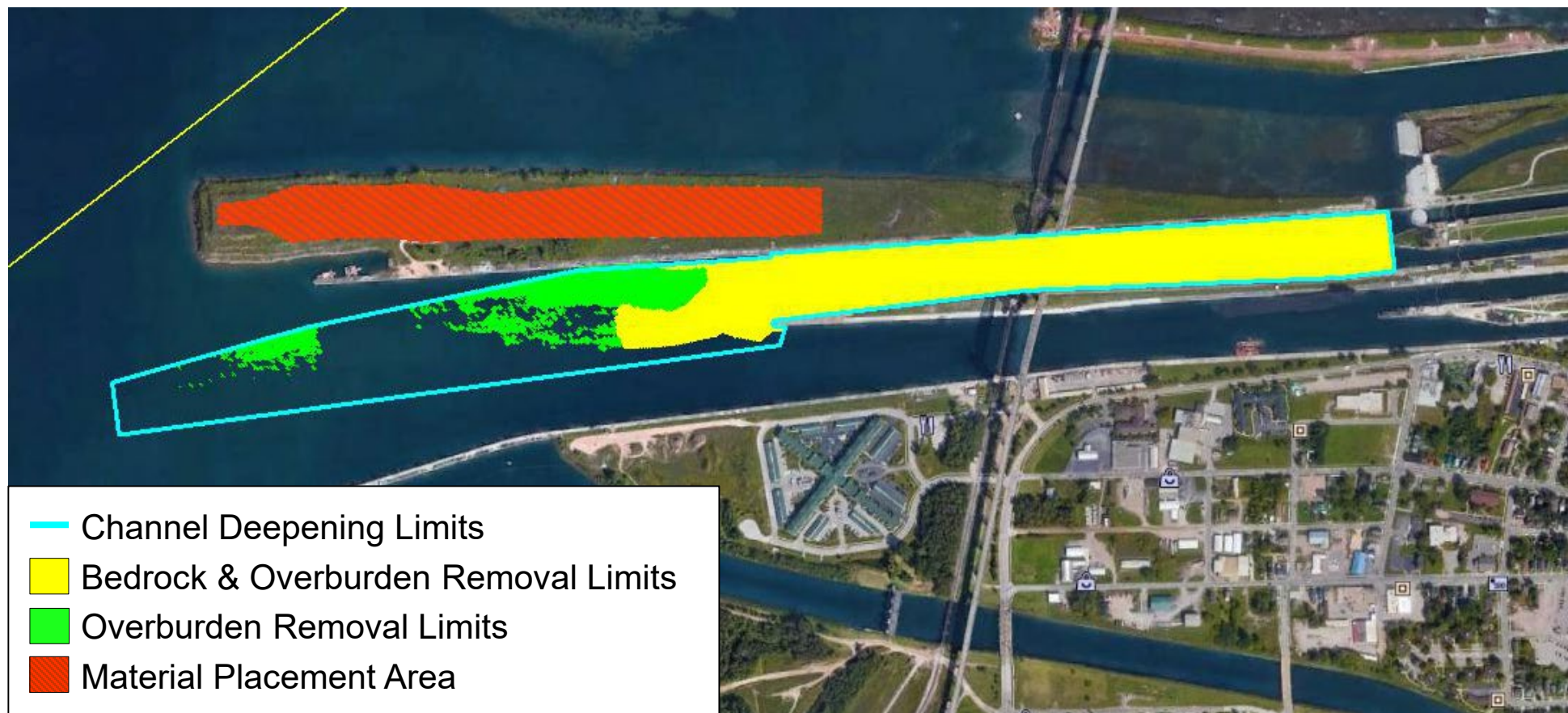
WE ARE HERE

* Early completion could be realized with efficient funding, favorable weather conditions and continuing contracts clause





UPSTREAM CHANNEL DEEPENING



Scope: Deepen upstream approach channel to depth of 30 feet

Construction Status:

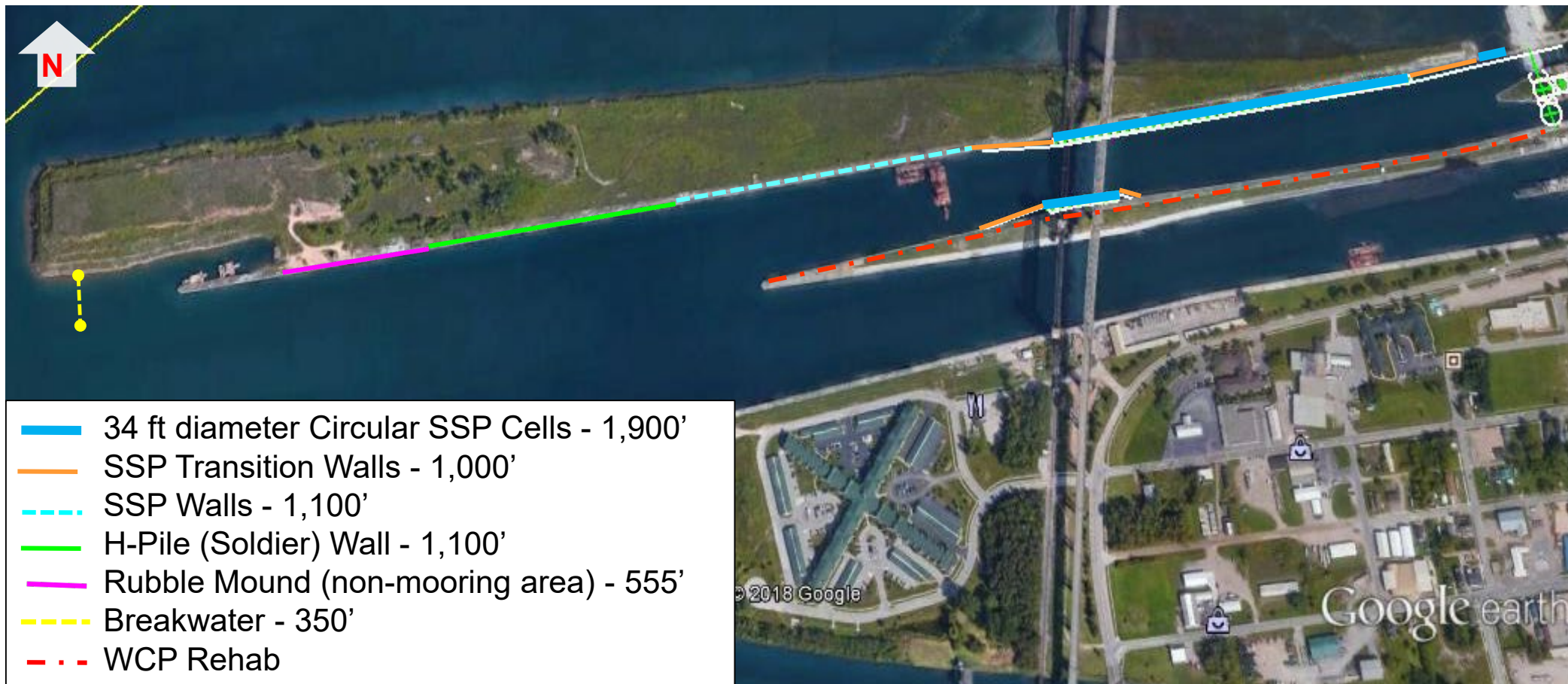
Construction awarded 30 January to Trade West Construction Co.

Construction began in late April

Estimated Performance Period: 20 Months



UPSTREAM APPROACH WALLS



Scope: Rehabilitate approach walls upstream of New Soo Lock

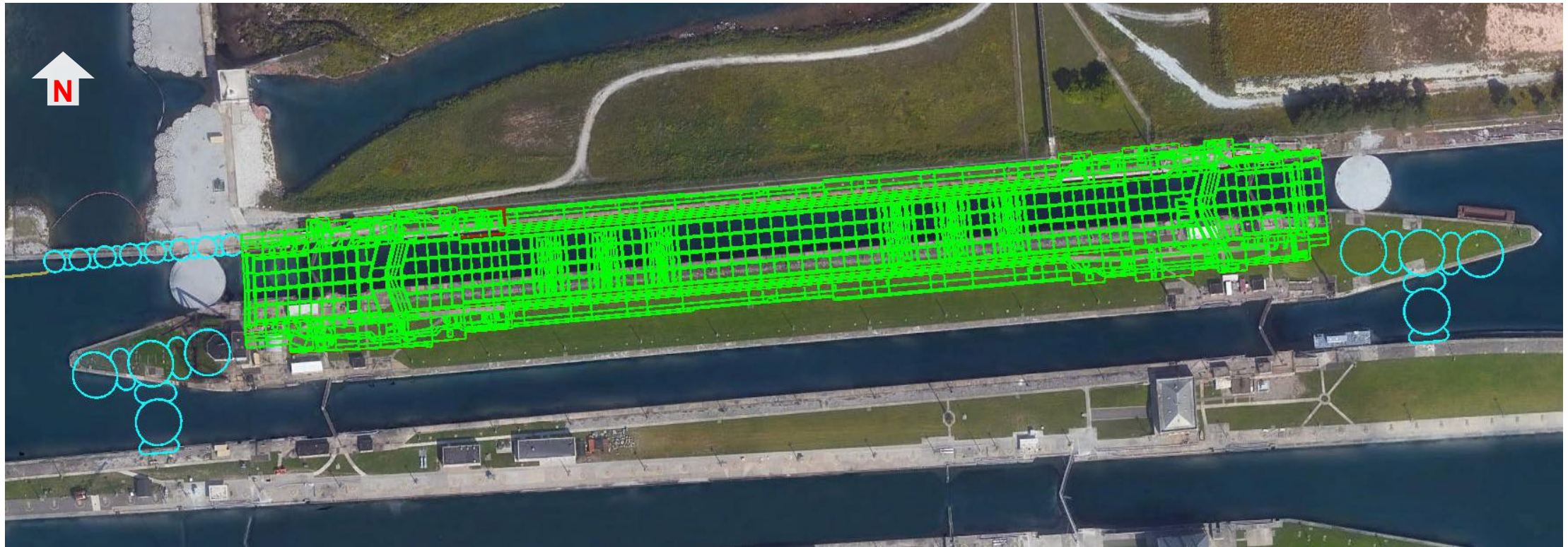
Design Status: Contract Advertisement in May 2020

Construction Status: Contract award expected in Fall 2020

Estimated Performance Period: 24 Months



NEW LOCK CHAMBER



Scope: Construct new 1,200' long by 110' wide by 32' deep chamber and rehabilitate downstream approach walls

Design Status: In Progress - 70% Design to be complete in June 2020

Construction Status: Construction Funding Capability Identified in FY21 (\$102.3M of \$152.3M capability included in the FY21 PBud Request)

Estimated Performance Period: 5-8 Years



OUTREACH



Web Site: www.lre.usace.army.mil/greatlakes/navigation

- Harbor Fact Sheets
- Updated CDF Fact Sheets
- Presentations

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QUESTIONS?

