

US Army Corps of Engineers  
 Great Lakes Navigation Business Line  
 FY22 President's Budget  
 May 28, 2021

**Navigation O&M**      **\$224.5M**

\$49.78M	Primary Dredging 3.15M cu yds	
	\$1.02M	Ashland Harbor
	\$1.40M	Buffalo Harbor
	\$1.37M	Burns Harbor
	\$0.57M	Charlevoix Harbor
	\$7.11M	Cleveland Harbor
	\$1.11M	Conneaut Harbor
	\$3.13M	Detroit River
	\$2.66M	Duluth-Superior Harbor
	\$0.68M	Dunkirk Harbor
	\$2.22M	Fairport Harbor
	\$0.80M	Grand Haven Harbor
	\$2.63M	Green Bay Harbor
	\$1.32M	Harbor Beach
	\$3.11M	Indiana Harbor
	\$0.73M	Kenosha Harbor
	\$1.00M	Keweenaw Waterway
	\$2.06M	Lorain Harbor
	\$0.60M	Manistee Harbor
	\$1.30M	Manistique Harbor
	\$1.13M	Monroe Harbor
	\$1.20M	Muskegon Harbor
	\$1.10M	Ontonagon Harbor
	\$1.13M	Rouge River
	\$2.63M	Saginaw River
	\$1.00M	Sandusky Harbor
	\$0.55M	St. Joseph Harbor
	\$6.22M	Toledo Harbor
\$11.02M	Project Condition Surveys	
\$23.53M	Lock Operation and Maintenance	
	\$2.05M	Black Rock Lock
	\$3.35M	Chicago Lock
	\$0.05M	Inland Route
	\$18.08M	Soo Locks
\$8.47M	Black Rock Lock Asset Renewal	
	\$3.00M	Installation of one set of miter gates
	\$4.50M	Fabrication of miter gates
	\$0.22M	Rehabilitation of hydraulic cylinders and HPUs
	\$0.10M	Engineering and design of repair for lower west guide wall
	\$0.30M	Engineering and design of repair for upper east guide wall
	\$0.10M	Engineering and design of main power cabling renewal
	\$0.25M	Engineering and design of repair for Bird Island Pier

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\$24.78M	Soo Locks Asset Renewal
\$4.20M	Repairs for Poe Lock filling and emptying valves
\$0.55M	Repair and replacement of gate operation components
\$9.50M	Replacement of Cranebarge HARVEY (Phase 3 of 4)
\$5.91M	Replacement of Cranebarge HARVEY (Phase 4 of 4)
\$0.40M	Study to reduce arc flash risks in MacArthur and Poe Locks
\$0.42M	Design of Soo Locks maintenance support building electrical system upgrade
\$3.80M	Design and installation of MacArthur and Poe Locks structural handrail
\$5.95M	Chicago Lock Asset Renewal
\$0.25M	Repair of sector gate seal
\$0.10M	Ice management
\$3.60M	Replacement of gate drives
\$0.50M	Resurfacing of chamber walls
\$1.50M	Resurfacing of North Pier (final phase)
\$14.4M	Floating Plant Fleet Repair (Calumet, Cleveland, Conneaut, Duluth-Superior, Fairport, Ludington, Milwaukee, Presque Isle)
\$7.38M	Strike Removal
\$2.97M	Detroit River
\$0.61M	St. Clair River
\$3.80M	St. Marys River
\$10.63M	Dredged Material Management
\$0.62M	CDF Fill Management (Calumet)
\$3.80M	CDF Maintenance (Indiana, Keweenaw Waterway, Saginaw River, St. Clair River, St. Marys River)
\$5.01M	CDF Operations (Buffalo, Cleveland, Indiana, Saginaw)
\$1.20M	Dredged Material Management Plan and Assessment (Ashtabula, Cleveland, Conneaut, Fairport, Grand Haven, Kewaunee, Manitowoc, Sandusky)
\$57.6M	Structure Design, Maintenance, and Repairs
\$8.00M	Repairs of north breakwater – Buffalo Harbor
\$7.00M	Construction of north breakwater south head repairs – Buffalo Harbor
\$4.50M	Repairs of south breakwater – Buffalo Harbor
\$1.35M	Rubble mound encapsulation/north section, east outer – Chicago Harbor
\$5.97M	Timber crib stabilization of northeast breakwater – Chicago Harbor
\$0.25M	Design for ship canal shoreline protection – Duluth-Superior Harbor
\$0.25M	Design for repairs to north pier – Erie Harbor
\$2.20M	Design for repairs to north pier/wave attenuator – Grand Haven Harbor
\$0.03M	Breakwater safety maintenance – Grand Marais Harbor
\$6.90M	Repairs of west pier – Little Sodus Bay Harbor
\$0.25M	Design of west breakwater – Lorain Harbor
\$3.50M	Design and repair of south breakwater connector – Manistee Harbor

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Structure Design, Maintenance, and Repairs (continued)  
 \$0.03M Breakwater safety maintenance – Manistique Harbor  
 \$0.35M Design for repairs to south breakwater – Manitowoc Harbor  
 \$0.03M Breakwater safety maintenance – Manitowoc Harbor  
 \$0.03M Breakwater safety maintenance – Ontonagon Harbor  
 \$0.30M Design for repairs to outer west breakwater – Oswego Harbor  
 \$5.00M Construction of repairs to outer west breakwater – Oswego Harbor  
 \$0.30M Design for repairs to east arrowhead breakwater – Oswego Harbor  
 \$0.03M Maintenance of breakwater – Port Wing Harbor  
 \$5.00M Repairs of east pier – Rochester Harbor  
 \$0.60M Design for repairs to north breakwater – Sturgeon Bay Harbor  
 \$0.03M Breakwater safety maintenance – Two Harbors  
 \$5.70M Design for repairs to west pier – Vermillion Harbor

\$0.25M Regional Economic Data Collection (Cleveland)  
 \$0.25M Breakwater Assessment Team (Duluth-Superior)  
 \$1.19M Lake Michigan Diversion Accounting  
 \$0.84M Real Estate Management for Navigation  
 \$0.13M Environmental Compliance (Black Rock Lock, Calumet, Chicago Lock, Cleveland, Detroit River, Duluth-Superior, Grand Haven, St. Marys River, Toledo)  
 \$0.20M Cultural Resources (Black Rock Lock, Detroit River, Duluth-Superior, Grand Haven, St. Marys River)  
 \$0.53M Dam Safety (Chicago Lock, Indiana, Soo Locks)  
 \$0.46M Navigation Visitor Center Support (Duluth-Superior, Soo Locks)  
 \$2.91M St. Marys Security and Grounds (Navigation Business Line Portion)  
 \$3.5M Section 111 Beach Nourishment (Grand Haven, Holland, Ludington, Muskegon, South Haven, St. Joseph, White Lake)  
 \$0.23M Industrial Hygiene Services (Detroit River, Duluth-Superior, St. Marys River)  
 \$0.60M CIPR Security (Duluth-Superior, Grand Haven)

**Navigation Construction General \$507.5M**

\$9.10M Calumet CDF  
 \$18.4M Indiana CDF  
 \$480M New Soo Lock