



US Army Corps
of Engineers®



St. Marys River, MI

Project Features

- One of Great Lakes connecting channels; flowing southeast between the State of Michigan and the Province of Ontario, Canada from the eastern end of Lake Superior into the northern end of Lake Huron.
- Authorization: River & Harbor Acts of 11 Jul 1870, 5 Aug 1886, 13 Jul 1892, 13 Jun 1902, 2 Mar 1905, 3 Mar 1907, Mar 1909, 25 Jul 1912, 4 Mar 1915, 22 Sep 1922, 21 Jan 1927, 3 Jul 1930, 26 Jun 1934, 30 Aug 1935, 7 Mar 1942, 15 Jun 1943, 2 Mar 1945, 24 Jul 1946, 21 Mar 1956, 9 Jul 1956
- Deep draft commercial channel
- Project depths varying from 27.5 to 30.0 feet in the St. Marys River, Lake Superior, and Lake Huron approaches.
- Total of 75 miles of federally maintained deep draft channels
- Project includes two active locks and two canals that handle over 80M tons of cargo annually and a hydropower plant of 20,000 kilowatt capacity.
- Major stakeholders include U.S. Coast Guard, Algoma Steel, Gardiner Marine Ltd., Great Lakes Power, Kemp Coal Dock, MCM Marine, Purvis Marine Ltd., and nearly all Great Lakes shipping interests.

Project Requirements

- Approximately 55,000 to 85,000 cubic yards of material must be dredged on a 4 to 6 year cycle; the river was last dredged in 2015 (Courses 5 and 6).
- Obstruction removal by the government plant is required in hard bottom channels of the St. Marys River on an annual basis.
- Shipping companies have identified the St. Marys River downstream of the locks as the controlling depth segment of the entire Great Lakes Navigation.



- USACE has developed a multi-year asset renewal plan to modernize the existing infrastructure of the locks to provide reliable infrastructure through the year 2035. The purpose is to improve the efficiency of lock operations and reduce the risks of downtime and vessel delays. This effort will focus on the Poe and MacArthur Locks, but other infrastructure at the facility is also included in the plan. Major items in the plan include replacement of the steam system, rehabilitation of the Poe and MacArthur Lock electrical systems, and many miscellaneous improvements and upgrades.
- The guidewalls along the West Neebish Island navigation channel (rock cut) are failing at various locations. The government plant completed a limited repair of the walls over the last three years, with additional repairs planned for 2016.
- Recent analysis has shown that the Poe Lock embedded gate anchorages have exceeded their design life. Repairs are planned to be initiated in 2016.

Consequences of Not Maintaining the Project

- If the channel were closed to commercial traffic, commodities would have to be transported by rail and truck. This would increase annual emission rates by over 952M lbs of harmful particulate matter (PM-10) and increase costs by \$29M due to increased railroad related accidents, and \$24M due to increased trucking related accidents.
- Light loading; loss of between 1 and 2 feet of channel depth results in increased transportation costs of between \$12.1M and \$33.9M annually.
- Key component of the Great Lakes and St. Lawrence Seaway navigation system.
- Disruption of service would have catastrophic maritime and economic impacts.

Transportation Importance

- Only connecting channel between Lake Superior and the lower Great Lakes and the St. Lawrence Seaway.
- St. Marys Falls Canal and Locks provide for vessel passage around the 21-foot drop of the river over the falls at Sault Ste. Marie, MI.
- This canal serves both domestic and foreign flag vessels transiting the Great Lakes.
- Commodities transported through these channels include iron ore, coal, limestone, petroleum and petroleum products, chemicals and related products, primary manufactured goods, food and farm products, manufactured equipment, machinery, and machine products.
- The U.S. Coast Guard Sector Sault Ste. Marie is located along the banks of the St. Marys River. This sector is responsible for all Coast Guard missions on Lake Superior, Northern Lakes Michigan and Huron and the surrounding navigable waterways, including: search and rescue, law enforcement, aids to navigation, marine safety, and homeland security. Aiding in these operations, from their home port in Sault Ste. Marie, MI, are the U.S. Coast Guard Cutters Katmai Bay and Buckthorn.

**U.S. Army Corps of Engineers Fiscal Year (FY) 2015, 2016 and 2017
St. Marys River, MI - Project Requirements and President's Budget (\$1,000)**

| Work Package | FY15 Requirement | FY15 Appropriation | FY16 Requirement | FY16 Appropriation | FY17 Requirement | FY17 President's Budget |
|--|-----------------------------|-------------------------------|-----------------------------|-------------------------------|-----------------------------|--|
| Lock Operations & Maintenance | 13,481 | 13,481 | 13,700 | 13,700 | 14,000 | 14,000 |
| Project Condition Surveys | 2,327 | 2,327 | 2,330 | 2,330 | 2,376 | 2,376 |
| Strike Removal | 3,245 | 3,245 | 3,245 | 3,245 | 3,245 | 3,245 |
| Lower River Dredging | 4,500 | 4,500 | | | | |
| Dam Safety Inspections | 110 | 110 | | | | |
| St. Marys River Rock Cut Repairs (Gov't Plant) | 1,500 | 1,500 | 1,000 | 1,000 | 1,100 | 1,100 |
| St. Marys River Nav Structure Maintenance (Gov't Plant) | 700 | 700 | | | | |
| EGIS Implementation | | | 30 | | 30 | |
| Soo Locks Asset Renewal | | | | | | |
| Poe Lock Embedded Anchorage Replacement | | | 6,000 | 6,000 | 2,500 | |
| Mac Lock Embedded Anchorage Replacement | | | | | 3,300 | |
| Mac Lock Stop Log Refurbishment | | | 2,250 | | 2,250 | |
| Design Davis Pump Well Rehabilitation | | | | | 300 | |
| Design Steamplant Rehabilitation | | | | | 300 | |
| Poe/Mac Lock Lifting Beams | 950 | | | | 950 | |
| Design Poe Lock Gate 1 Replacement | 500 | | | | 500 | |
| Design Emergency Generator Replacement | | | | | 500 | |
| Facility Safety Repair (Fire Alarm, Heat/Vent) | | | | | 1,100 | |
| West Center Pier Repair | 2,850 | | 3,000 | 3,000 | 3,000 | 3,000 |
| Poe Miter/Quoin Block Replacement | | | 3,000 | 300 | 2,900 | 2,900 |
| Replace Mac Lock Controls | 3,500 | 3,500 | | | | |
| Design for Poe Lock Electrical System Rehab | 500 | 500 | | | | |
| Poe Lock Electrical System Rehab | 4,600 | | 4,600 | 4,600 | | |
| Mac Lock Tainter Valve Bulkheads | 800 | 800 | 200 | 200 | | |
| Waterline Replacement | 2,500 | 2,500 | | | | |
| Dewatering Well/Pipe Repairs | 1,350 | 1,350 | | | | |
| Sustainability Energy Conservation Measures | 1,009 | 1,009 | | | | |
| Major Rehab Report | 1,000 | 1,000 | 500 | 500 | | |
| New Miter Gate Lifting Pendants | | | 500 | 500 | | |

| Work Package | FY15 Requirement | FY15 Appropriation | FY16 Requirement | FY16 Appropriation | FY17 Requirement | FY17 President's Budget |
|---|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|--------------------------------|
| Other Business Lines | | | | | | |
| Recreation: Visitors Center | 977 | 304 | 956 | 353 | 968 | 364 |
| Hydropower | | | | | | |
| -Hydropower Operations | 902 | 902 | 925 | 925 | 953 | 953 |
| -Hydropower Maintenance | 1,259 | 1,260 | 1,285 | 1,285 | 1,325 | 1,325 |
| -Power Canal/Headrace Repairs | 300 | | 1,710 | 1,710 | | |
| -Hydropower Repairs & Upgrades | 3,200 | 1,750 | | | 3,290 | |
| - Sustainability Energy Conservation Measures | 113 | 113 | | | | |
| Environmental Stewardship | 57 | 57 | 50 | 50 | 180 | 41 |
| Update Soo Area Office Master Plan | 31 | 31 | 50 | | 52 | |
| Lock Security Contract | 1,260 | 1,260 | 1,300 | 1,300 | 1,150 | 1,150 |
| Lock Grounds/Snow Removal Contract | 991 | 991 | 1,062 | 1,062 | 1,095 | 1,095 |
| CIPR Security Requirements (joint) | 736 | | 2,334 | | 2,405 | |
| TOTAL | 55,248 | 43,190 | 50,027 | 42,060 | 49,769 | 31,549 |

Congressional Interests

- Representative Dan Benishek R-MI-1
- Senator Gary Peters D-MI
- Senator Debbie Stabenow D-MI
- Numerous other representatives and senators throughout the Great Lakes with interests in ports that share interconnectivity with the St. Marys River.