



US Army Corps  
of Engineers ®



## Black Rock Lock and Tonawanda Harbor, NY

### Harbor Features

- Located on the Niagara River in the City of Buffalo, Erie County, NY
- Authorization: Rivers & Harbor Acts of 1888, 1902, 1905, 1916, 1919, 1922, 1925, 1935, 1945, and Flood Control Act of 1954
- Deep draft commercial project
- Project depths are 21 feet in the Niagara River Channel and 16 feet in Tonawanda Harbor channels.
- The Black Rock Lock and Channel permit pleasure craft and commercial vessels to travel between Buffalo Harbor and Tonawanda Harbor.
- The Black Rock Lock can accommodate pleasure craft and commercial vessels up to 625 feet long with drafts up to 21 feet.
- 165K tons of material shipped and received in 2018
- The Bird Island Pier is approximately 2 miles long and forms the west side of the Black Rock Channel.
- Project includes 4.1-mile federal channel connecting Buffalo Outer Harbor and Black Rock Lock, a 3.4-mile federal channel downstream of the Black Rock Lock, and a 2.5-mile federal channel and turning basin around Tonawanda Island approximately 8.1-miles downstream of the Black Rock Lock.
- Major stakeholders: U.S. Coast Guard, Suit-Kote, NOCO Energy Corp., and United Refining Co.

### Project Requirements

- In addition to routine operation and maintenance (O&M), critical requirements include repairs to the lower west guide wall, Bird Island Pier, motor control center, main power cabling, hydraulic cylinders and power units, and fabrication of new miter gates.



- Maintenance dredging is conducted infrequently to maintain the navigation channel. The channel was last dredged in 2015.
- New upper and lower miter gates are needed. The current gates are original to the project (1914) and are well beyond fatigue life. Funding for design was received in FY19 and the design is 95% complete. Funding for fabrication of one set of gates is expected in FY21.
- Rehab of the existing upper and lower gates and anchorages is currently ongoing. Work is focused on addressing the worst areas to ensure continued safe operation until design, fabrication and installation of the new gates is completed.
- Emergency repairs to the lower east primary anchorage were completed in FY18 following the sudden failure of the component.

### **Project Requirements**

- Work completed in FY19 focused on the anchorages and lower gates and included: replacement lower west primary anchorage, downstream secondary gate anchorages, upper primary anchorages, lower miter gate diagonals, pintle balls and bushings, lower gudgeon arms, lower ram arm connection, and all timber components (quoin, miter, and fender). In order to complete the work, lock dewatering and removal of the lower gates was also required.
- Work planned for FY20 includes: replacement of the upstream secondary gate anchorages, upper miter gate diagonals, upper gudgeon arms and pins, pintle balls and bushings, ram arm connections, culvert trash screens, and all timber components (quoin, miter, and fender). In order to complete the work, lock dewatering and removal of the upper gates is required.

### **Consequences of Not Maintaining the Project**

- Failure to adequately fund routine O&M could result in closure of the lock.
- Elimination of the U.S. connection to the Intercoastal Waterway from Lake Erie
- Inability for commercial and recreational vessels to reach destinations on the upper Niagara River

### **Transportation Importance**

- Asphalt is the primary commodity shipped or received through the lock.
- With 1,350 lockages in 2018, the lock provided safe passage for 2,416 vessels (167 commercial and 2,249 recreational).
- The lock provides the only means for deep draft commercial vessels to reach delivery ports on the upper Niagara River, including fuel storage facilities and refinery.

**U.S. Army Corps of Engineers Fiscal Year (FY) 2019, 2020, and 2021  
Black Rock Lock and Tonawanda Harbor, NY  
Project Requirements and President's Budget (\$1,000)**

<b>Work Package</b>	<b>FY19 Requirement</b>	<b>FY19 Appropriation</b>	<b>FY20 Requirement</b>	<b>FY20 Appropriation</b>	<b>FY21 Requirement</b>	<b>FY21 Appropriation</b>
Operation of Lock	1,201	1,201	1,249	1,249	1,255	1,255
Operational Routine Maintenance of Lock	621	621	646	646	659	659
Real Estate Management	35	35	35	0	34	34
Project Condition Surveys	30	30	31	31	32	32
Facility Security Maintenance	60	60	61	61	62	62
Motor Control Center Repair	50	50	550	0	0	0
Operational Condition Assessment	33	33	0	0	0	0
Replacement of Pintles	1,655	1,655	0	0	0	0
Lower Operating Gate Diagonal Replacement	2,595	2,595	2,000	2,000	0	0
Design Miter Gates	500	500	0	0	0	0
Fabrication Miter Gates	0	0	4,500	0	4,500	4,500
Environmental Compliance Management	0	0	25	25	0	0
Periodic Inspection	0	0	60	60	0	0
Engineering & Design Bird Island Pier Repair	0	0	250	0	250	0
Structure Repair - Bird Island Pier	0	0	0	0	0	0
Engineering & Design Lower West Guide Wall Repair	0	0	0	0	100	0
Engineering & Design Upper East Guide Wall Repair	0	0	0	0	300	0
Evaluate Guard Gates and New Bulkheads	0	0	0	0	100	0
Engineering and Design - Main Power Cabling Renewal	0	0	0	0	50	0
Rehab Hydraulic Cylinders and Hydraulic Power Units	0	0	0	0	220	0
<b>Other Business Lines</b>						
Environmental Stewardship	5	5	5	5	5	5
<b>TOTAL</b>	<b>6,785</b>	<b>6,785</b>	<b>9,412</b>	<b>4,077</b>	<b>7,567</b>	<b>6,547</b>

**Congressional Interests**

- Representative Brian Higgins D-NY-26
- Senator Charles Schumer D-NY
- Senator Kirsten Gillibrand D-NY