

Great Lakes St. Lawrence Seaway Development Corporation

Seaway Infrastructure Program (SIP) Annual Report to Congress



Fiscal Year 2023

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Background and Summary

As requested in the Senate Report (S. Rept. 118-70) of Senate Bill 2437 (Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2024), the Great Lakes St. Lawrence Seaway Development Corporation (GLS or Corporation) is providing this annual report to the House and Senate Committees on Appropriations on the status of its Seaway Infrastructure Program (SIP).

The St. Lawrence Seaway is comprised of perpetual assets (locks, channels, an international bridge, highway tunnel, and accompanying facilities and equipment), which require capital reinvestment to continue to operate safely, reliably, and efficiently. Without sufficient investment in GLS's perpetual assets, the future availability and reliability of the U.S. section of the St. Lawrence Seaway would be at risk. Although the GLS has maintained a 99 percent reliability rate over its history, the SIP is currently necessary to continue accomplishing this level in the future.

The start of the GLS's infrastructure program in 2009 represented the first time in the GLS's history that a comprehensive effort had been undertaken to modernize the Seaway infrastructure, including rehabilitation of and improvements to the U.S.-operated locks, the navigation channels, and other Corporation-owned facilities and assets located in Upstate New York. None of the infrastructure projects increases the authorized depth or width of the navigation channel or the size of the lock facilities.

Over its history, more than 3 billion metric tons of cargo valued at more than \$500 billion have moved through the St. Lawrence Seaway. This binational commercial transportation route impacts 241,000 U.S. and Canadian jobs and generates annual binational economic benefits of \$36 billion in economic activity, \$17.8 billion in personal income and local consumption expenditures, and \$6.3 billion in Federal, state/provincial, and local tax revenue.¹

In Fiscal Year (FY) 2023, the GLS obligated \$15.9 million using contracts for 24 SIP projects, including \$7.6 million to replace the diffusers at Snell Lock, \$1.8 million for all-season navigational aids, \$1.2 million for concrete rehabilitation at Eisenhower Lock, and \$1.1 million to upgrade electrical distribution equipment. Additionally, the GLS obligated and expended \$731,000 in personnel costs in FY 2023 for SIP-related staff activities. As of September 30, 2023, the GLS's unobligated balance for SIP projects was \$12.8 million.

Through the first 15 years of dedicated Seaway infrastructure funding (FYs 2009-2023), the GLS has obligated \$225 million on 65 separate infrastructure-related projects (*see pages 17-18*). These projects included maintenance dredging in the U.S. portion of the Seaway navigation channel, lock miter gate and culvert valve machinery upgrades, culvert valve replacements, hands-free mooring installation at the locks, gatelifter upgrades, capital improvements at the Seaway International Bridge, miter gate rehabilitation, and tugboat replacements, as well as various other structural and equipment repairs and/or replacements.

¹ Economic Impacts of Maritime Shipping in the Great Lakes-St. Lawrence Region, Martin Associates, July 2023.

The GLS's SIP has resulted in not only modernized infrastructure and new equipment to ensure the long-term reliability of the St. Lawrence Seaway, but it is also having a positive and significant impact on the Upstate New York economy. In fact, more than 55 percent of the SIP funds obligated during the program's first 15 years, totaling nearly \$125 million, were awarded within the region.

These significant investments clearly demonstrate the Federal commitment to the long-term health and vitality of the binational waterway, complementing infrastructure investments being made by other Great Lakes Seaway System stakeholders, including ports, terminals, and carriers.

During the 2023 navigation season, the GLS recorded 5 hours, 16 minutes of lock-related disruptions to navigation, resulting in a lock availability rate of 99.97 percent for the 289-day 2023 season, exceeding the GLS's performance goal of 99.75 percent. The successful planning and execution of the SIP, which began in FY 2009, is a key reason for the achievement of the near-perfect reliability rate.

In October 2023, a Canadian Seaway labor dispute led to the temporary shutdown of the 13 Canadian-owned and operated Seaway locks. As a single lock system, this Canadian event warranted the closure of the two U.S. Seaway locks as well. GLS employees remained on the job and were able to conduct SIP-related maintenance work, including projects funded in FY 2023, during the 7.5-day closure.

SIP projects and estimates focus on eight infrastructure categories:

- <u>Locks and Associated Structures</u> Includes the structures at Eisenhower and Snell Locks and those structures that are required for the operation and/or maintenance of the locks.
- <u>Lock Equipment</u> Includes the equipment at Eisenhower and Snell Locks that is used to transit vessels through the locks and the controls for that equipment.
- <u>Utilities</u> Includes utilities infrastructure for electricity, fuel, potable water, raw water, and compressed air.
- <u>O&M Equipment and Work Vehicles</u> Includes mobile heavy and light equipment, shop equipment, and Massena-based work vehicles.
- <u>Buildings and Grounds</u> Includes construction of and improvements to GLS-owned buildings, roadways, work areas, parking areas, and grounds.
- <u>Dredging, Navigation Aids, and Floating Plant</u> Includes projects that improve the safety and efficiency of navigation, as well as improvements to and replacement of the GLS's floating plant.
- <u>Seaway International Bridge</u> Includes capital improvements to the South Channel Span of the Seaway International Bridge. (GLS owns 68 percent of the South Channel Span.)
- <u>Information Technology (IT) and Communications</u> Includes improvements to the GLS's non-Common Operating Environment (COE) IT network and systems as well as CCTV, cameras, and communication improvements.

In FY 2023, the GLS, through its SIP, addressed many of its core infrastructure asset needs related to moving commercial trade safely and efficiently as well as began work on a multi-year effort to rebuild and/or rehabilitate its aging buildings and work areas in Massena, N.Y. Most of these buildings/facilities, owned and operated by the GLS and built at the time of the Seaway's construction in the 1950s, have reached the end of their useful life and do not meet the Americans with Disabilities Act (ADA) or current energy standards.

To address these concerns, the GLS contracted in FY 2022 with an architectural/engineering firm for a Facility Master Plan (FMP) to include a review of the entire GLS's Massena building/ workplace inventory to assess current conditions, address needed maintenance and/or rehabilitation to meet current workplace and energy standards, and provide cost estimates for new, more energy and space-efficient workspace. The FMP identified 20 capital improvement projects with a current projected cost of \$50 million. The first FMP project contract, expected to be awarded in late FY 2024 or early FY 2025, is for the replacement of the GLS's Administration Building to be constructed on the south side of Eisenhower Lock currently estimated at \$10 million.

The SIP five-year capital planning process ensures that aging machinery, equipment, and parts are rehabilitated/replaced; buildings, grounds, and utilities are sufficiently maintained/ refurbished; and commercial trade continues to move on the Seaway safely with a minimum of interruption or delay. The GLS's SIP is consistent with existing Office of Management and Budget (OMB) guidance and requirements regarding useful segments of a capital project and is subject to annual appropriations.

For the FY 2025-2029 timeframe, the SIP five-year estimates totaling \$84.9 million are included in this report on page 18. Dollar amounts for SIP projects are "project feasibility" estimates that can vary by an industry-recognized 20-30 percent. While many SIP projects have received funding over several years, the GLS uses a multi-phased approach in developing each project to ensure annual funding produces distinct and useful segments, in accordance with OMB Circular A-11.

FY 2023 Seaway Infrastructure Program (SIP) Project Updates

The following information provides an update on the 20 SIP projects with respective obligations totaling more than \$25,000 in FY 2023.² The GLS continues to use contracts that promote the Buy American Act and small and disadvantaged businesses, as well as Federal contract programs offered by the General Services Administration (GSA), including e-Buy, AutoChoice, and the Federal Supply Schedule, whenever possible. Of the GLS's FY 2023 SIP contracts, 82 percent were awarded to small businesses and 8 percent to small disadvantaged businesses.

1) <u>LOCK AND ASSOCIATED STRUCTURES</u> – UPGRADE OF FENDERING ON APPROACH WALLS AT BOTH LOCKS



GLS work crews perform fendering replacement along the lower guidewall at Eisenhower Lock.

<u>General Description</u>: This project is to replace wood fendering on the approach walls at both locks with rubber fenders to protect both transiting vessels and the approach walls. The cost of the wood fenders is increasing such that the rubber fenders have become cost competitive. The rubber fenders that have been installed to date have performed well.

FY 2023 Obligations:³ \$278,907

Total Obligations (FYs 2009-2023): \$1,375,409

<u>Project Update (as of September 30, 2023)</u>: In FY 2023, the GLS made purchases for supplies and equipment necessary for the GLS workforce to complete repairs to damaged ship fendering at the two U.S. Seaway locks. Purchases included 600 linear feet of rubber trapezoidal approach wall fendering

and 300 linear feet of rubber gate fendering from DS Imports LLC, Galveston, Texas, for \$230,244 and fender steel hardware from HF Fabrication, LLC, Phoenix, Ariz., for \$19,097. Additionally, the GLS purchased installation supplies and hardware required for the fendering installation from Fastenal Co., Winona, Minn. (\$9,900). The fendering work is completed by the GLS maintenance workforce and this is a regular and recurring project based on fendering damage. Most of the fendering purchased in FY 2023 was installed during FY 2023.

² There were four SIP projects with FY 2023 obligations below \$25,000 that are not reported in the project update section: (1) <u>Lock and Associated Structures</u> – Rehabilitation of Concrete at Snell Lock (\$1,900); (2) <u>Lock</u> <u>Equipment</u> – Upgrade of Ship Arrestor Machinery at Both Locks (\$6,855); (3) <u>Lock Equipment</u> – Repair/ Replacement of Piping and Valves at Both Locks (\$10,928); and (4) <u>IT and Communications</u> – Upgrade of Communications Systems (\$13,075).

³ The "FY 2023 Obligations" amount includes all GLS obligations incurred related to the project during FY 2023. It includes contracts, labor hours, and warehouse inventory drawdowns.

2) <u>LOCKS AND ASSOCIATED STRUCTURES</u> – REHABILITATION OF CONCRETE AT EISENHOWER LOCK

<u>General Description</u>: This project is to replace deteriorated/ damaged concrete at the Eisenhower Lock in all areas except the diffusers. This includes concrete that was of poor quality when placed during original construction and concrete that has been damaged by freeze-thaw cycles and by vessel impacts. This deteriorated/damaged concrete includes mass concrete that forms the walls inside the lock chambers as well as the walls, floors, and ceilings of the filling and emptying culverts, and the gate sills.

FY 2023 Obligations: \$1,211,983

Total Obligations (FYs 2009-2023): \$8,119,820



Contractor crews perform concrete rehabilitation work along the stop log sills at Eisenhower Lock to allow additional contractors to complete diffuser replacement work.

Project Update (as of September 30, 2023): In early FY 2023,

the GLS awarded a contract to Patterson-Stevens Inc., Tonawanda, N.Y., related to concrete restoration work in the stop log sill at Eisenhower Lock for \$1.15 million. Additionally, a contract was awarded to WSP USA, Inc., Buffalo, N.Y., for \$25,215 for inspection and quality assurance services. The work was completed in FY 2023 following the completion of the 2022 navigation season and included the demolition as well as restoration of approximately 40 cubic yards of concrete at the Eisenhower Lock.



During the winter of 2023, contractors completed the replacement of the three upstream diffusers at Snell Lock.

3) <u>LOCKS AND ASSOCIATED STRUCTURES</u> – REHABILITATION OF DIFFUSERS AT SNELL LOCK

<u>General Description</u>: This project is to replace deteriorated/ damaged concrete in the diffusers at the Snell Lock. This includes poor-quality concrete used during original construction of the locks as well as concrete that was damaged by freeze-thaw cycles. The diffusers are the outlet structures used to dampen the flow of water when the lock is emptied.

FY 2023 Obligations: \$7,628,677

Total Obligations (FYs 2009-2023): \$7,706,312

<u>Project Update (as of September 30, 2023)</u>: In FY 2023, the GLS awarded a contract for \$7.5 million to Kubricky Construction Corp., Gansevoort, N.Y., related to the concrete diffusers replacement project at Snell Lock. Additionally, the GLS

awarded a contract for \$43,957 to WSP USA, Inc., Buffalo, N.Y., for technical oversight and

inspection of the FY 2023 winter work for this project. Finally, the GLS awarded a contract to AOK Engineering, PLLC, Gouverneur, N.Y., for \$11,050 to provide temporary sealing of the stop logs area of Snell Lock for the diffuser work to commence. The work for this project began in FY 2023 following the completion of the 2022 navigation season and is expected to be completed in the winter of FY 2024.

4) <u>LOCKS AND ASSOCIATED STRUCTURES</u> – REHABILITATION OF STOP LOGS AT BOTH LOCKS

<u>General Description</u>: This multi-year project is for rehabilitating the GLS's 34 stop logs, which are truss-framed steel structures that span the 80-foot-wide locks and have steel plates installed on one vertical side. The stop logs are stacked at each end of both locks to create temporary dams allowing the locks to be dewatered for inspection and/or repair of the underwater surfaces and components during the winter maintenance season. These structures are more than 60 years old and need to be rehabilitated on a regular basis to ensure continued reliability.

FY 2023 Obligations: \$151,129

Total Obligations (FYs 2009-2023): \$274,144

<u>Project Update (as of September 30, 2023)</u>: The GLS awarded five contracts for supplies totaling \$50,512 related to the ongoing rehabilitation work of the stop logs at the two locks. GLS crews completed the work that included blasting and painting of the stop logs, replacement of seals and hardware, and structural repairs. The GLS expects to complete 2-3 stop golog rehabilitations each year.

5) <u>LOCKS AND ASSOCIATED STRUCTURES</u> – REPLACEMENT OF RECESS COVERS AT BOTH LOCKS

<u>General Description</u>: This is a multi-year project to replace steel and steel/concrete composite covers that are used to access the lock operating machinery located in the galleries and recesses at both locks. Many of these recess covers are the original covers and will be over 60 years old when they are replaced. They have deteriorated due to the use of salt to keep covered areas clear of ice, and they have been further damaged by trucks and heavy equipment driving over them. The GLS will replace the covers with more durable/maintainable materials designed for greater loads.



An example of one of the new personnel access hatches along the lock wall to keep water out of recesses and provide improved safety for GLS personnel.

FY 2023 Obligations: \$536,175

Total Obligations (FYs 2009-2023): \$1,498,367

<u>Project Update (as of September 30, 2023)</u>: The GLS awarded a contract to Dow Electric, Inc., Malone, N.Y., in FY 2023 for \$319,000 for the purchase and installation of 25 personnel access hatches (3-foot by 3-foot) at both locks along the walls to keep water out of recesses and provide improved safety for GLS personnel going in and out of the lock recesses for inspections and maintenance. Additionally, a contract was awarded to LaVack's Custom Builders, Inc., Massena, N.Y., for \$26,300 for one bullgear cover at north downstream Snell Lock. GLS personnel built the cover and LaVack completed the demo, prep, and installation of the covers.

6) <u>LOCKS AND ASSOCIATED STRUCTURES</u> – UPGRADE OF LIGHTING AT BOTH LOCKS

<u>General Description</u>: This project is to replace stringed incandescent lighting with fixed brighter and more energy-efficient LED lighting below grade at both locks in the cable galleries and other work areas.

FY 2023 Obligations: \$96,341

Total Obligations (FYs 2009-2023): \$200,699

<u>Project Update (as of September 30, 2023)</u>: The GLS awarded several contracts totaling \$15,627 for LED lighting and installation equipment and supplies for lighting. GLS crews began installation of the lighting in the riser sections at both ends of both locks, which is expected over the next two years.

7) <u>LOCKS EQUIPMENT</u> – UPGRADE OF DEWATERING PUMPS AT BOTH LOCKS

<u>General Description</u>: This project is for repairing/replacing several smaller pumps used for dewatering both Eisenhower and Snell Locks during maintenance of their underwater components. These pumps are almost 60 years old and parts for these units are no longer available. In recent years, the GLS began the replacement and/or repair of these pumps.

FY 2023 Obligations: \$62,805

Total Obligations (FYs 2009-2023): \$833,493

<u>Project Update (as of September 30, 2023)</u>: In FY 2023, the GLS awarded a contract to Dow Electric, Inc., Malone, N.Y., for \$38,800 related to the installation of plugging devices to allow for the installation of new valves to allow for future maintenance on the dewatering pumps at each of the two locks. The project also included the replacement of electrical feeds to the pumps.

8) <u>LOCK EQUIPMENT</u> – REHABILITATE HANDS-FREE MOORING SYSTEM UNITS



GLS crews perform rehabilitation maintenance on an out-of-service unit of the hands-free mooring system in Massena, N.Y.

<u>General Description</u>: In June 2019, Hands Free Mooring (HFM) technology became fully operational at GLS's locks in Massena, N.Y., with the commissioning of HFM technology at Snell Lock. The Seaway's HFM project was the first use of this technology for an inland waterway to move commercial vessels through a lock system in the United States. The new technology allows commercial ships to transit safely and more efficiently without the use of mooring lines while also enhancing workplace safety and improving operational efficiency. Each year, the GLS removes one of the six operating units used at the two locks and replaces various parts including seals, hydraulic cylinders, bushings, and

bearings. A fully operational spare unit is used in place of the unit pulled for maintenance.

FY 2023 Obligations: \$79,524

Total Obligations (FYs 2009-2023): \$113,762

<u>Project Update (as of September 30, 2023)</u>: The GLS continued its HFM maintenance program in FY 2023 with multiple contracts totaling \$31,031 for parts, equipment, and supplies to proactively repair and replace worn parts and repaint one of the GLS's six operating HFM units. GLS crews completed the inspection and rebuild work.

9) <u>UTILITIES</u> – UPGRADE OF POWER SUPPLY INFRASTRUCTURE FROM MOSES-SAUNDERS DAM TO BOTH LOCKS AND ADJACENT FACILITIES

<u>General Description</u>: This project is for upgrading the infrastructure that supplies power to the Eisenhower and Snell Locks and to the Corporation's Maintenance Facility. The power is provided directly from the Moses-Saunders Power Dam over infrastructure that is 60 years old.

FY 2023 Obligations: \$51,437

Total Obligations (FYs 2009-2023): \$780,304

<u>Project Update (as of September 30, 2023)</u>: In FY 2023, the New York Power Authority (NYPA) continued its ongoing rehabilitation of the infrastructure that supplies power to the GLS for operations and maintenance activities. This is a recurring annual SIP project with expenditures dependent on NYPA plans. In FY 2023, the GLS paid \$40,081 to NYPA, White Plains, N.Y., for its work on GLS power-related infrastructure rehabilitation, which included work to make upgrades on the transmission lines connected to GLS facilities.

10) <u>UTILITIES</u> – UPGRADE OF ELECTRICAL **DISTRIBUTION EQUIPMENT**

General Description: This project is for upgrading electrical distribution equipment at both Eisenhower and Snell Locks and at the Maintenance Facility to ensure continued reliability. Much of this equipment is 60 years old.

FY 2023 Obligations: \$1,054,095

Total Obligations (FYs 2009-2023): \$4,700,397

Project Update (as of September 30, 2023): In FY 2023, the GLS awarded a contract, including several modifications, to Collins Hammond Electrical Contractors, Inc., Ogdensburg, N.Y., totaling located at Snell Lock. \$875,243 for the new buried high voltage power cables at



power New high voltage cables

Eisenhower and Snell Locks, conduit repairs at Eisenhower Lock, and emergency repairs to the GLS's power infrastructure to restore normal power at the GLS's Maintenance Base.

11) **O&M EQUIPMENT AND WORK VEHICLES – REPLACEMENT OF HEAVY** AND LIGHT EQUIPMENT AND VEHICLES

General Description: This is an ongoing project to replace heavy and light equipment, vehicles, and shop equipment as they become worn out and unserviceable. Heavy and light equipment include such items as a crane, dump truck, snowplow, backhoe, grader, front end loader, air compressor, forklift, and welder. Shop equipment includes such items as a lathe, drill press, vehicle hoist, and milling machine. Equipment and vehicles are inspected regularly, and their replacement is prioritized based on the results of those inspections.



GLS's new all-electric Ford Transit work van used by maintenance crews in Massena, N.Y.

FY 2023 Obligations: \$381,582

Total Obligations (FYs 2009-2023): \$5,525,564

Project Update (as of September 30, 2023): In FY 2023, the GLS purchased work-related heavy and light equipment and motor vehicles for its Massena, N.Y., operations.



GLS's cantilever man basket for use in performing maintenance on the handsfree mooring system at both U.S. Seaway locks.

The GLS purchased five new 2023 work vehicles for its Massena operations for \$200,432 from GSA Heartland Finance Center, Kansas City, Mo., including three all-electric work vehicles (two Hyundai Kona Electric SUVs and a Ford Transit work van) and two hybrid electric work vehicles (a Ford Maverick pickup truck and a Chrysler Pacifica van wagon). The GLS also awarded a contract for \$10,612 to John M. Ellsworth Co., Inc., Milwaukee, Wis., for two electric vehicle charging stations to be installed at GLS locations to power the new electric vehicle purchases.

Additionally, the GLS purchased a Toro Groundmaster 4500 industrial mower with cab for \$116,786 from Grassland Equipment and Irrigation Corporation, Liverpool, N.Y., to mow acres of grass fields owned by the GLS in the Massena area. Finally, the GLS purchased a cantilever man basket for \$18,735 from Lakeshore Industrial, LLC, Two Rivers, Wis., to be used by GLS crews in addressing maintenance to hands free mooring units in operation at both locks.

12) <u>BUILDING AND GROUNDS</u> – REPLACEMENT OF PAVING AND DRAINAGE INFRASTRUCTURE

<u>General Description</u>: This project is for improving the pavement and drainage along lock approach walls as well as the roadways, public parking, and work areas at all Corporation facilities. In Upstate New York, the damage to pavements caused by winter conditions is significant.

FY 2023 Obligations: \$305,809

Total Obligations (FYs 2009-2023): \$4,164,879

<u>Project Update (as of September 30, 2023)</u>: The GLS awarded a contract in FY 2023 to LaVack's Custom Builders, Inc., Massena, N.Y., for \$287,138 for paving and drainage replacement and improvements. Completed areas of the work were at the GLS's Maintenance and Marine Base.

13) <u>BUILDING AND GROUNDS</u> – REHABILITATION OF EISENHOWER LOCK HIGHWAY TUNNEL

<u>General Description</u>: This is an ongoing project to maintain and upgrade the highway tunnel which goes through the upper sill area of Eisenhower Lock, providing the only access to the north sides of both Eisenhower and Snell Locks, to the New York Power Authority's Robert Moses Power Project, and to the New York State Park on Barnhart Island.

This project includes grouting to limit the water leaking into the tunnel, improving the drainage and replacing the roadway surface, replacing deteriorated/damaged gratings and railings, and routinely clearing tunnel drains. Since this tunnel is the only means of access to the facilities noted previously, any problems that would make it necessary to close the tunnel for repair would have very significant impacts, including closure of the Robert Moses State Park, and limited to no access for New York Power Authority staff and contractors working at the Moses-Saunders Power Dam.



Work crews perform demolition of one lane in the GLS's Eisenhower Lock highway tunnel. FY 2023 work included improvements to the drainage structure and replaced concrete.

FY 2023 Obligations: \$85,109

Total Obligations (FYs 2009-2023): \$1,858,285

<u>Project Update (as of September 30, 2023)</u>: As part of the GLS's on-going improvements to its Eisenhower Lock Highway Tunnel, the GLS awarded a contract to Dow Electric, Inc., Buffalo, N.Y., for \$80,000 for the installation of new steel for the drainage structure and concrete roadway repairs in the tunnel. The work was completed in late FY 2023. The tunnel and its roadway are used by the public and is an important transportation infrastructure asset for Upstate New York tourism, GLS operations, and New York Power Authority employees.

14) <u>BUILDING AND GROUNDS</u> – REPLACEMENT OF WINDOWS AND DOORS AND REPAIR BUILDING FACADES

<u>General Description</u>: This project is for replacing corroded/worn windows and doors with more energy efficient units and for repairing the brick and stone facades.

FY 2023 Obligations: \$34,176

Total Obligations (FYs 2009-2023): \$120,827

<u>Project Update (as of September 30, 2023)</u>: The GLS awarded two contracts in FY 2023 to make improvements to existing GLS facilities in Massena, N.Y. The GLS awarded a contract to Structural Wood Corporation, St. Paul, Minn., for \$12,060 for glass and flush doors for multiple Maintenance Base facilities. Additionally, the GLS awarded a contract to Triple A Lumber, Inc., Canton, N.Y., for \$4,841 for 37 windows for installation at Eisenhower Lock. All installation work is expected to be completed by GLS crews in FY 2024.

15) <u>BUILDINGS AND GROUNDS</u> – REPLACEMENT OF SEAWAY VISITOR CENTER AT EISENHOWER LOCK

<u>General Description</u>: In FY 2019, the U.S. Department of Transportation announced that a new Seaway Visitor Center at Eisenhower Lock in Massena, N.Y., would be constructed to replace the original center built in the early 1960s. The old center, with only observation decks open, attracted more than 60,000 people each year and was an important attraction for Upstate New York tourism. The new facility will build upon those successes and address many of the shortcomings of the old center, including energy efficiency and accessibility for people with disabilities.



The GLS's Seaway Visitor Center at Eisenhower Lock was completed in early FY 2024 and opened to the public in May 2024.

FY 2023 Obligations: \$257,206

Total Obligations (FYs 2009-2023): \$10,751,494

<u>Project Update (as of September 30, 2023)</u>: In FY 2023, the GLS awarded several contract modifications totaling \$207,915 to Con Tech Building Systems, Inc., Gouverneur, N.Y., for the completion of the construction of the new 7,500-square-foot Seaway Visitor Center at Eisenhower Lock. The construction was completed by Con Tech in early FY 2024 at a final cost of \$8.7 million and the grand opening took place in May 2024.

16) <u>BUILDINGS AND GROUNDS</u> – REHABILITATION/REPLACEMENT OF MASSENA, N.Y. FACILITIES

<u>General Description</u>: This is a multi-year project to replace and rehabilitate GLS buildings and structures in Massena, N.Y., that need modernization. As a Federal government corporation, the GLS owns and is responsible for 34 operational, administrative, maintenance, and storage buildings. Many of these buildings include workspace for GLS employees. Nearly every GLS building in Massena was built during the Seaway's construction in the 1950s and needs some modernization.

FY 2023 Obligations: \$941,914

Total Obligations (FYs 2009-2023): \$1,401,952

<u>Project Update (as of September 30, 2023)</u>: The GLS awarded a contract for \$935,182 to WSP USA, Inc., Buffalo, N.Y., for the conceptual design, construction design, and the construction administration and oversight of the GLS's new Administration Building to be constructed on the south side of Eisenhower Lock. The current 30,800-square-foot building constructed in the late 1950s will be vacated with the construction of a new, smaller 13,000-square-foot facility utilizing clean hydroelectric power on the south side of Eisenhower Lock. This new construction contract is expected to be awarded in late FY 2024/early FY 2025 and is currently estimated at \$10 million.



Engineering drawings (top image is front of building; bottom image is rear of building) of the new GLS Administration Building to be located on the south side of Eisenhower Lock.

The new GLS Administration Building is the first project of a multi-year effort to rehabilitate and/or replace its various buildings and facilities in Massena, N.Y., that are used for employee workspace and storage. They were built during the construction of the U.S. assets of the St. Lawrence Seaway in the 1950s. All these facilities/buildings are owned and operated by the GLS.

Most of these buildings/facilities have reached the end of their useful life and do not meet the ADA or current energy standards.

In FY 2022, the GLS contracted with an architectural/engineering firm for a Facility Master Plan (FMP) to include a review of the entire GLS's Massena building/workplace inventory to assess current conditions, address needed maintenance and/or rehabilitation to meet current workplace and energy standards, and provide cost estimates for new, more energy- and space-efficient workspace. The FMP identified 20 capital improvement projects with a current projected cost of \$50 million.

17) <u>DREDGING, NAVIGATION AIDS, AND FLOATING PLANT</u> – REPLACEMENT OF FLOATING NAVIGATION AIDS / UPGRADE TO ALL-SEASON BUOYS

<u>General Description</u>: This is an ongoing program to replace floating navigational aids/buoys and winter markers that have been damaged over the years and to upgrade the lights on the buoys. This project also includes testing all-season buoys to determine if they will be effective for use in the Seaway. The GLS is responsible for 101 buoys (with one light per unit) and 59 winter markers along a 120-mile portion of the Seaway.

FY 2023 Obligations: \$1,840,189

Total Obligations (FYs 2009-2023): \$2,898,812

<u>Project Update (as of September 30, 2023)</u>: In FY 2023, the GLS awarded a contract to the UMS Metal Fabricators, Inc., Mobile, Ala., for \$1.8 million to purchase 72 all-season buoys to be fabricated and delivered over four years between FY 2023 and FY 2026. This purchase completes the GLS's needs to convert all of its navigation aids to all-season buoys.

Unlike traditional Seaway navigation aids, each all-season buoy will not have to be lifted out of the water except if it is found off-station or for a mooring inspection. This reduces the number of conventional buoys that must be commissioned and decommissioned, thus saving the GLS time and money. Additionally, all-season buoys will provide economic savings to the Seaway's commercial users by eliminating double pilotage costs for several weeks at the beginning and end of each navigation season when traditional navigation aids are not in the water.

18) <u>DREDGING, NAVIGATION AIDS, AND FLOATING PLANT</u> – UPGRADE/ REPLACEMENT OF FLOATING PLANT/TUGS

<u>General Description</u>: This project is for rehabilitating and/or replacing the Corporation's floating plant that is used for maintaining the locks and navigation channels. This multi-year project

includes: replacing the GLS's tugboats *ROBINSON BAY* and *PERFORMANCE*; upgrading the buoy tender barge; purchasing a boat to be used for hydrographic surveying with upgraded surveying equipment; purchasing a small boat for emergency responses; purchasing small boats for navigation aid maintenance; purchasing a spud barge for work on navigational aids and for emergency/spot dredging; and rehabilitating the GLS's crane barge/gatelifter *GRASSE RIVER*, which would be utilized if a lock miter gate were damaged and had to be replaced.



GLS's new 60-foot tugboat SEAWAY TRIDENT following its delivery to Massena, N.Y., in May 2023.

FY 2023 Obligations: \$338,340

Total Obligations (FYs 2009-2023): \$42,038,474

<u>Project Update (as of September 30, 2023)</u>: In FY 2023, the GLS awarded several contract modifications to Washburn & Doughty Associates, Inc., East Boothbay, Maine, totaling \$10,428 to complete the construction of the ice-class, 60-foot tugboat *SEAWAY TRIDENT*. This tugboat will carry out a variety of construction and maintenance duties for the U.S. portion of the St. Lawrence Seaway, including routine maintenance of lock structures, maintenance and positioning of aids to navigation, ice management, and removal of accumulated ice from lock walls. Additionally, the GLS awarded a contract to Glosten, Inc., Seattle, Wash., for \$111,411 for inspection and oversight services of the *SEAWAY TRIDENT* construction.

The tug construction was completed in FY 2023 and the tug was delivered to the GLS in May 2023. The GLS also awarded many small business purchases to outfit the *SEAWAY TRIDENT* for day-to-day operations and workplace safety measures.

The GLS also awarded a contract for \$30,000 to Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C., Rochester, N.Y., for a general condition assessment with recommendations related to the operations of the GLS's 300-ton gatelifter vessel *GRASSE RIVER*.

19) <u>IT AND COMMUNICATIONS</u> – UPGRADE OF SEAWAY VESSEL TRAFFIC MANAGEMENT SYSTEM

<u>General Description</u>: This project is to expand use of the Seaway's Global Positioning System (GPS)/ Automatic Identification System (AIS) navigation technologies, which are incorporated into the Seaway's binational Traffic Management System (TMS). Future upgrades will further improve the safety for vessels transiting the Seaway and improved time management efficiencies for Great Lakes Seaway System commercial users and stakeholders.

FY 2023 Obligations: \$460,340

Total Obligations (FYs 2009-2023): \$1,515,516

<u>Project Update (as of September 30, 2023)</u>: In FY 2023, the GLS entered into an agreement with the Canadian St. Lawrence Seaway Management Corporation (SLSMC) and agreed to contribute up to \$650,000 for the continued work on the development and design of the Seaway's Voyage Information System (VIS). VIS will serve as the next generation of vessel traffic control and will greatly enhance the safety and efficiency of maritime navigation in the St. Lawrence Seaway and ultimately the Great Lakes. The GLS and SLSMC continue to collaborate with the Volpe National Transportation Systems Center, Cambridge, Mass., on the VIS project.

The U.S. and Canadian Seaway corporations intend to pursue additional phases for the VIS project, resulting in, at a minimum, a new system to improve the safety and efficiency of Seaway vessel traffic management, including transits and lockages. The system could be further enhanced to incorporate port, carrier, and pilot data to better inform and improve efficiencies in extended Seaway stakeholder groups.

20) <u>IT AND COMMUNICATIONS</u> – UPGRADE OF LOCK CONTROLS

<u>General Description</u>: This project enhances and improves the GLS's IT network infrastructure and security in Massena, N.Y. The growth of more technology-based improvements is resulting in an increased need to expand and refine the GLS's network environment, including cybersecurity preparedness. The GLS is working closely with DOT's Office of the Chief Information Officer (OCIO) to coordinate and make these improvements.

FY 2023 Obligations: \$114,769

Total Obligations (FYs 2009-2023): \$1,354,779

<u>Project Update (as of September 30, 2023)</u>: The GLS continues to make systematic improvements to its IT network environment in Massena, N.Y. In FY 2023, the GLS awarded a contract to Re:Build Optimation Technology, LLC, Buffalo, N.Y., for \$102,410 for hardware upgrades, installation, and training for Massena-based IT operations. The upgrades were coordinated with DOT's OCIO officials to ensure conformity with Federal and Departmental IT security and networking configurations and protocols.

Locks and Associated Structures Locks and Associated Structures Locks and Associated Structures Locks and Associated Structures Locks and Associated Structures	SIP Project Description	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Locks and Associated Structures Locks and Associated Structures Locks and Associated Structures Locks and Associated Structures	Upgrade of 7 endering on Approach Walls at B oth Locks	\$245,494	\$34,930	\$0	\$C	\$0	\$188,725	\$140	\$0
Locks and A sociated Structures Locks and A sociated Structures Locks and A sociated Structures	Rehatilitation of Downstream Mitter Gates at Both Locks	\$0	\$0	\$3,548,985	\$17,542	\$3,023,060	\$223,730	\$0	\$0
Locks and Associated Structures Locks and Associated Structures	Rehatilitation of Mooning Buttons, Pins, and Concrete Alorg Guidewal's and Guardwalls at B oth Locks	\$952,015	\$51,501	\$0	\$395	\$0	\$0	\$0	\$0
Locks and Associated Structures	Rehatilitation of Culvet Valve Machinery Hydraulics at B cth Locks	\$4,135,197	\$441,150	\$4,010,108	\$609,971	\$262,687	\$4,602	\$0	\$0
	overs at B oth	\$66,362	\$19,470	\$77,446	\$69,380	\$68,470	\$88,636	\$12,127	\$0
Lunksend Associated Standares Lodenand Associated Standares	Regitarement of Chittert V aitres with Single Sion Vaitres at hoth Lincks Structured Description Creater Contarian and Description at Bioth Lincks	421,13 012 020	ACT, 135-8 0.0	0511/1112	\$3116,XUX 40,815	\$K./45 ¢0	\$1,3X5,14U ¢0	\$17/71% #U	\$44 Jr 14
Looks and A concisted Structures	T IP COCODO I NT P	47,0L4 C1	04	0.4	42,012 45		0	0	00
Locks and Associated Structures	Reharititation of Concrete at Fisenhouse Lock	5	\$214 227	15	3C	\$452	8	0\$	\$U
Locks and Associated Structures	Rehatilitation of Upstream Miter Gates at Both Locks	\$2,207,523	\$2,497,234	\$391,013	\$47,112	\$521	\$0	\$0	\$0
Locks and Associated Structures	×	53	\$0	\$0	\$C	\$0	\$0	\$0	\$0
Locks and Associated Structures	Structural Rehabilitation of Miter Gates at Both Locks	C\$	\$0	\$0	\$9,94C	\$2,906,116	\$3,758,337	\$8,372	\$0
Locks and Associated Structures	Rehatilitation of Diffusers at Snell Lock	8	\$0	\$0	\$	\$0	\$0	\$00	\$0
Locks and Associated Structures	installation of Lock Warl Guardiants at Both Locks		20	0\$	\$C	0\$	20	\$593,802	\$14,680
Locks and Associated Structures	Rebatilitation of Stop Logs at B oth Locks	8] 6	\$0	0\$	3U 8U	8	0.90	\$10 OE	\$20 076
Todes and Associated Structures	replacement of reaces 5 overs at point process Thereads of Technice of Defail order	Cê	0¢	04	÷	D¢	0.00	0000070	0.000
Louis and Accorded Standards	Upplase or inputting ar putting of the second s	رې د	0¢	0.0	¢U	Q.	, .	0, 0,	0\$
Lock Equipment	Upgrade@enjation.comparesed AirSystems at Doth Locks	\$22.123	\$828.924	\$23.393	\$2.795	\$33	0.0	\$4.381	\$0 \$
Lock Equipment	nent at F	[3	\$483	\$0	\$562	\$3.975	\$503.659	\$8.834	(\$63.174)
Lock Equipment	Installation of Hands-Free Mooring System at Both Locks	l\$	0\$	0.\$	\$1	0\$	\$/U5,14U	\$10,795,599	\$1,703,212
Lock Equipment	Replacement of Ventical Lift Gate Wire Ropes at Eisenhower Lock	\$1,453	\$496,528	\$134,194	\$311,286	\$0	\$0	\$0	\$0
Lock Equipment	Upgrade of fce Flushing System at Eisenhower Lock	C\$	\$0	0\$	\$C	\$0	\$0	\$0	\$0
Lock Equipment	Upgrade of Drainage Infrastructure in Gali eries and Recesses at B 1th Locks	(\$	0\$	0\$	\$542	\$15,351	\$314,642	\$743	\$0
Lock Equipment	Improvements to Ice Control at B oth Locks	C\$	\$13,518	\$0	\$C	\$0	\$0	\$28	\$0
Luck Equipment	Upgrade of Dewatering Pumps at Bloth Looks	L\$	\$n	U\$	\$196,196	\$46,840	\$33,905	\$21,759	\$N
Lock Equipment	Installation of Ice Flusting System at Snell Lock	[\$	\$1,453	\$282,027	\$11,548,762	\$1,660,795	\$139,238	\$162,233	\$11,096
Lock Equipment	Upgrade of Miter Gate Machinery at Both Locks	(\$	\$0	\$133,90:	\$7,751	\$3,256	\$3,785,656	\$1,611,855	\$75,166
Lock Equipment	Upgrade of Ship Arrestor Machinery at Both Locks	C\$	\$0	\$0	\$C	\$0	\$0	\$0	\$0
Lock Equipment	Rehatilitation of Stiffleg Denticks a: Both Locks	3	\$0	\$0	Ş	\$	\$0	\$0	\$0
Lock Equipment	Rehatilitation of Access to and Machinery in Crossovers and Recesses at B oth Locks	\$0	\$0	\$	\$0	\$0	\$0	\$724,686	\$15,360
Lock Equipment	Repart/Replacement of Piping and Valves at B oth Looks	C\$	0\$	0\$		0\$	20	0\$	\$0
Lock Equipment	A discontration	\$10.5.04 01.0.5.04	90 UCU 4	020 200 0\$	\$1 \$1	\$12,000	\$00 220		\$1 \$1
Outlucs Thritisiae	Opgrade of 7 over over over programmer and promitions of the contract of the c	101,710	\$10,212¢ \$727703	216'16¢	46.5 355	289 CD	07r'or¢	0¢ 28V	04 4U
Outlucs	Opgrade of a contrat PASATONATON Equipment In medaR adjacement of Enversement Generatore	5	0.9	02,216	2027070 QL	\$1.754.280	\$380 377	\$62,40 663,406	50 61 334
Dulities	Opgranminguation or Luite gene) Octoantos Innercoentente to Facility and Underronnal Utilities	5	0\$	0\$	\$L	\$0	17r'nor¢	00±****	U\$
C&M Equipment and Work Vehicles	Real amount of Heavy and Lischt Eminment and Vehicles	\$1.577.143	\$438.592	\$122.460	\$81.625	\$157.393	\$277.151	\$141.124	\$13.486
Buildings and Grounds	Replarament of R. Julis a. Facilities	\$146,481	\$4.94	\$9,740	\$96,894	\$45,240	\$0	\$285,581	\$34,852
Buildings and Grounds	Replacement of Paving and Drainage Inficstructure	C\$	\$1,839,051	\$115,588	\$C	\$3,622	\$0	\$0	\$0
Buildings and Grounds	Kehatrihtati on of Kissenhower Lock Highway Tixmel	\$32,184	\$254,465	\$102,394	17.016\$	\$953	\$1,164,656	\$01,275	\$24,15\$
Buildings and Grounds	UpgradeReplacement of Fire Alarn/Protection Systems	\$25,409	\$624	\$31,298	\$C	\$0	\$0	\$0	\$0
Buildings and Grounds	Upgrade of Storage for Lock Spare Parts and Equipment	(\$	\$421,778	\$29,188	\$142	\$1,124,640	\$32,475	\$2,751	\$0
Buildings and Grounds	Replace of Windows and Doors and Repar Building Facades	(\$	\$35,635	\$8,725	\$13,422	\$4,715	\$0	\$2,655	\$0
Buildings and Grounds	Rehabilitation of Spare Gate Storage and Assembly Area at Snug Harbor	(\$	\$13,661	\$351,644	\$16,692	\$2,115,326	\$94,340	\$4,295	\$0
Buildings and Grmmds	Upgrade of Physical Security to Meet H SPD-12 Requirements	L\$	95 97 97\$	512723	\$365,89F	\$41,979	\$ 24,852	\$4,065 \$6,475	\$U \$
Buildings and Grounds	Kepta-centert of Sea way Visitor Center at Lisenhower Lock	5	\$0	\$14,518	\$r	\$319,098	\$815,/30	\$9,479	\$2,183
Buildings and Grounds Duildings and Conneds	Replacement of Elevator at Administration Building	[\$	\$0	\$145,581	\$13 666	0.9	0.8	0.0	20
Putitize and Grounds	representation of a factory detivation dentry [] normale of Security Freein d	۲¢	40 40	\$172,271	300°01¢	0\$	0	0	00
Buildings and Gmmds	 Prepare on occurrency - uncomestic Unormales to Facilities to Meet Statainability and Finerow Gracks 	\$U \$U	\$0 \$0	\$72,31	\$\$2.641	920 028	\$ 78 67 8	\$37.414	\$12 348
Buildings and Grounds	Upgrade of Lock Structures Maintenance Building	\$	\$0	\$0	\$C	\$0	\$0	\$0	\$0
Buildings and Grounds	Rehatilitation/Replacement of Massena, N.Y. Facilities	\$0	\$0	0\$	\$0	\$0	\$0	\$0	\$0
Dredging, Navigation Aids, and Floaring Plant	Replacement of Floating Navigational Aics/Upgrade to All-Season Buoys	\$61,254	\$54,576	\$0	\$C	\$22,273	\$68,149	\$126,064	\$1,969
Dredging, Navigation Aids, and Floating Plant	Rehatilitation of Fixed Navigational Aids	\$65	\$29,173	\$18,454	\$23,311	\$23,397	\$14,199	\$26,638	\$3,323
Dredging, Navigation Aids, and Floating Plant	t/Tugs	\$763,963	\$1,638,737	\$1,997,992	\$2,189,954	\$853,713	\$609,459	\$318,600	\$9,223,567
Dredging, Navigation Aido, and Floating Plant	Maintenance Drecging of U.S. Sectors to Maintain Design Grade and D.spose of Setiments	\$1,298,695	\$13,359	\$3,675,679	\$118,885	\$1,936	\$165	\$21,771	\$695
Dea way international infrage		102, PU1, C4	C/ /'NS0'C\$	141 730	\$10 ODT	\$6.350	0.0	₽	90
IT and " amount of interest	Opgrade of Seaway Y Sect Transcrudgements System Thermeda of Sector Controls	\$100,107 \$21,207	262,000	911/10	\$10,000 \$124.044	40C2041	\$1 57 65 D	\$172 P10	00 01/12 769
11 and Communications	Upperate of Streamed Management System	107,114	100,2014	53.576	15	115	11\$	C10'7'14	007114
IT and Communications	Unorade of Vetworks and IT Security	5	05	\$170.633	\$19.475	\$8.687	0 \$	\$0	\$0
IT and Communications	Upgrade of Communications Systems	C\$	\$0	20\$	\$C	10\$	\$163	\$35,847	\$43,561
IT and Communications	UpgradeReplacement of Operational CCTVs	C\$	0\$	0\$	\$C	0\$	\$0	\$0	\$0
	Upgrade of Massena-Based Telephone System	(\$	\$0	\$0	\$C	\$0	\$0	\$0	\$0
	Miscellaneous Expenses (non project-specific expenses and administrative PC&B costs)	\$113	\$153,370	\$160,384	\$119,656	\$57,762	\$119,458	\$70,158	\$23,908
	SIP - TOTAL OBLIGATIONS	\$17,951,311	\$16,874,735	\$16,505,915	816,510,519	\$14,917,365	\$14,908,222	\$15,570,849	\$11,399,239
	Other Than Personnel SIP Costs (contracts, inventory, equipment, supplies)	\$17,587,027	\$16,339,760	\$15,783,117	\$15,838,805	\$14,242,887	\$14,189,526	\$14,912,827	\$10,921,469
	GL.S SIP Project-Specific Personnel Compensation and Benefits (PC&B)	\$364,284	\$534,975	\$782,798	\$671,714	\$674,478	\$718,696	\$658,022	\$477,770
	Miscellaneous SIP Costs (non project-specific expenses and administrative PC&B costs)	\$113,774	\$153,370	\$160,384	\$119,656	\$57,762	\$119,458	\$70,158	\$23,908

GLS Seaway Infrastructure Program (SIP) Obligations (FYs 2009-2023)

	SIP Project Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	TOTAL
Locks and Associated Structures	Upgrade of Fendericg on Approach Walls at B oth Locks Detections of Demonstrates Million Contact B and Locks	\$0	\$C	\$190,258	\$162,246 *r	\$9,865	\$264,844	\$278,907	\$1,375,409
	renammenton of Downstream juner tetes at both Looks Rehabilitation of Manning Buttans, Pins, and Cancerste Along Gundemalls and Gunardwalls at Buth Lacks	00	35 91	0\$	¢Г \$Г	0\$	04	00	\$1 003 C11
		\$U	J\$ \$	U\$	J\$	U\$	÷	\$U \$U	\$9,463,715
Locks and Associated Structures	Rehabilitization of W-inter Maintenance Lock Covers at P oth Locks	\$0	\$C	\$0	\$C	\$0	\$0	\$0	\$401, 591
	Keplacement of Culvert Valves with Single Skin Valves at Both Locks	\$2,382	\$r	\$2.26,746	45.9°F <\$	\$59,348	1\$	\$U	\$2,506,268
	Structural Repairs to Grout Leaks in Galleries and Recesses at B cth Locks	\$0 \$0	\$C	\$169,116	\$244,795	\$512	\$0	\$0	\$456,034
	- 13	\$0. \$0.	35	\$357,500	\$724,220	F 9, 1	\$8,185	\$1,900	\$1,697,C50
		\$31 / 384	\$004,920 ¢r	\$509,217	\$604,4/8 ¢r	001, 144\$	\$3,149,293 ¢n	\$1,211,985	\$5,19,22U #5:42 ADA
Louks and Associated Standards	Nettatonnicaton of Digin canto varies at duta Louis. Daboki districton of Diffinaciona Ericachormar Lock	00	9L 9L	04	471 665	46 370 687	\$153.AD2	90 60	\$6 504 550
Louis and A sondated Structures	rougourceuou of Mitter Gates at Elouno wa Pous. Structural R ebabilitation of Mitter Gates at Both Locks	0\$	¥ر \$ر	00	3°1,1,4	100°212°04	061,0014	00	\$6 68.2 265
	entering and the second s	Sn Sn	32	0\$	\$55111	U\$	\$21 524	\$7 628 677	\$7 706 512
	installation of Lock Wall Guardiaris at Both Locks	\$0	35	\$192.617	\$12.545	\$0	\$0	\$0	\$318.640
	Referible form of Short Transaction and the Short Transaction of Sh	\$0	J\$	\$U		\$83 524	\$ 30.40	\$151.29	\$274 144
	Reniacement of Recess Covers at Both Locks	\$35.489	\$70.325	\$255.252	\$317.682	\$83.557	\$137,510	\$536.75	\$1.498.267
	Upstrade of Lighting at Both Locks	\$0	\$	\$0		\$0	\$104.358	\$96.341	\$200.699
	Installation of Marine Dase Dost Launch Ramo	\$0	18	90	J\$	\$0	\$61.374	30	\$61.74
Lock Equipment	Uperade/Replacement of Commessed Arr Systems at B oth Locks	\$0	\$[\$0	\$C	\$0	\$0	\$0	\$881.646
Lock Equipment		\$6,839	\$4.501	\$0	\$C	\$0	\$0	\$0	\$465.681
	installation of Hands-Froe Moorine System at B oth Looks	\$3.205.661	\$2.069.631	\$1.142.835	\$653.911	(\$4.949)	\$0	\$0	\$25.268.C41
Lock Equipment	Realacement of V etical Lift Gate Wire Zons at Eisenhower Lock	\$0	\$[\$0	\$C	\$0	\$0	\$0	\$943.466
	Untrade of free Flushing System at Fister humer 1, a %	U\$	35	\$7 F82	\$14 445	\$1 600	\$	\$0	\$23 130
	oppose of Drainage Inflationations and Researce at Both Locks	\$0	\$C	\$0	\$01.381	\$0	\$76	\$0	\$421.735
	Innormetricatics to lice control at B oth Locks	\$0	\$	\$0	\$C	\$0	\$0	\$0	\$13.545
Lock Equipment	Uperade of Dewatering Futures at Both Locks	\$0	30	\$153.295	\$53.186	\$21.299	\$244.207	\$62.805	\$833,493
	Installation of lee Fluching System at Snell Lock	\$3.173	\$:.320	\$661.764	\$2.282.764	\$94.123	\$21.296	\$0	\$16.870.C45
	Upgrade of Miter Gate Machinery at Both Locks	(\$270)	\$0	\$0	\$C	\$0	\$0	\$0	\$5,651,518
Lock Equipment	Upgrade of Ship Arrestor Machinery at Both Cocks	\$0	\$C	\$714,604	\$713,776	\$2,987	\$0	\$6,855	\$1,438,222
	Rehahilistion of Stiffled Derroks at Buch Locks	\$N	J\$	\$121.786	\$803.50F	\$17,381	U\$	\$N	\$1.038.763
Lock Equipment	Rehabilitation of Access to and Machinery in Crossovers and Recesses at Both Locks	\$0	\$C	\$0		\$0	\$0	\$0	\$740,C45
	Keplar/Keplacement of P-pungand Valves at Both Locks	n\$	1\$	\$154,240	\$1.1\$	n\$	\$45,702	\$10,928	\$210,595
Lock Equipment	Unts	\$0	3\$	\$0	\$C	\$0	\$ 34,238	\$79,524	\$:13,762
	Upgrade of Power Supply Infrastructure from Moses-Seunders Dem to B ott: Locks and Adjacen: Facilities	\$7,572	\$23,200	\$147,520	\$23,00C	\$33,007	\$62,652	\$51,437	\$780,504
Utilities	Upgrade of Electrical Distribution Equipment	\$0	\$75,000	\$163,297	\$1,193,792	\$314,604	\$665,79.	\$1,054,095	\$4,700,297
	UpgradeR eplacement of Emergency Generators	\$0	\$C	\$0	\$C	\$0	\$0	\$0	\$2,229,547
	Improvencents to Facility and Underground Utilities	\$0	\$5:,076	\$0	\$4,585	\$0	\$0	\$0	\$55,£61
Wurk Vetnides	Replayerment of Heavy and Light Equipment and Vehicles	\$:17,162	\$150,046	\$1,011,510	\$1,040,321	\$8,409	\$16,151	\$381,582	\$5,525,564
Buildings and 3 rounds	Replacement of Roofs at Facilities	(\$142)	\$[\$0	\$C	\$0	\$0	\$0	\$619,140
	Replacement of Paving and Diamage infrastructure	20	\$250,000	\$1,487,603	\$75,706	\$89,419	(\$1,919)	\$305,809	\$4,:64,£79
	Rehabilitätion of Eisendiewer Lock Highway Punnel	0\$	3\$	\$34,013	\$82	\$53,180	0\$	\$85,:09	\$1,858,285
Buildings and Grounds	UpgradeK equacement of the starm/Protection Systems	20	9C	1.5	9 . 9	99 \$0	20	\$0	\$57,252 #1 510 575
	Deplace U supervision and Docement Development Development. Deplace U supervision and Docement Development.	D¢	¢٦ م	0¢ 126	φ17 274	00	0	\$0 \$24:76	C/C(0 T0, T¢
	Truptact of Withows and C-1.00:5 and Kupar Duting Facatus Truptact of Withows and C-1.00:5 and Kupar Duting Facatus	De Oe	10	0/1/10 0/0	74 10	D#	0 - e	404°-70	41.605 CEO
E uttangs and Sounds	. Actientitication ut operate cate outrage and assertiony anda at ontug mar out Themode of Deverical Security to Meet H CDD1.7.R emittements	0¢	1¢	04	4L	0¢		0¢	\$426 175
	Realacement of Servicy Visitor Center at Eisenhower Lock	(\$768)	32	\$129	\$C	\$362.969	\$8.981.152	\$257.206	\$10.751.494
Buildings and 3 munds	Realscement of Elevator at Administration Building	\$0	32	\$0	\$C	\$0	\$0	\$0	\$ 45.381
	Replacement of Fuel Tanks at Maintenance Facility	\$0	\$0	\$0	\$C	\$0	\$	\$0	\$205,532
t	Upgrade of SecurityFencing	0\$	\$C	0\$	\$C	0\$	0\$	\$0	\$18,489
	Upgrades to Facilities to Meet Sustainability and Energy Goals	(112\$)	3\$	0\$	\$1,416	0\$	\$0	\$0	\$274,513
	Upgrade of Lock Structures Maintenance Building	0\$	30	\$0	\$14,915	\$297	20	\$0	\$15,212
Buildings and Grounds	. Facilities	\$0		0\$	\$77,145	\$336,520	\$46,375	\$941,914	\$1,401,552
- 1	Replacement of Flosting Navigational Aids/Upgrade to All-Season B uoys	\$2,198	\$190,544	\$20,596	\$25,466	\$37,090	\$437,044	\$1,840,:89	\$2,898,E12
- 1	. Kehabulutation of Fized Navigational Aids	(543)	\$4,192	\$157,760	\$2.28	\$2	\$1	\$U	\$316,LU6
	1	\$9,826,516	\$4,600.725	\$431,719	\$6,132,291	\$444 %70	\$2,623,027	\$338,340	\$42,038,474
Dredging, Navigation Aids, and Floating Plant	ĝ	20	\$0,50C	\$92,237	\$2,305,UIC	\$200,472	\$1,251,24U	\$0 \$0	\$12,417,118
		n¢	90	100 voi 4	\$L #1 001	0.¢	10000000	\$0	071'02:00
	Upgrade of Secway V essal trainic Management System Transide of Controls	9U2 090	-14 -14	777174	\$4.395	90 90	14 20,46 J	\$40U,54U	012/21214
	Upgraue of Evenerical Management Stortem	07C'00C	3C \$	\$11,242	\$L \$1000	0¢	0,04,24	\$0.*+11¢	\$1,"HCL,14
IT and Comministions	Unorade of Networks and IT Security	\$0	12	\$0	\$411.275	\$217.042	\$36.02:	\$0	\$863.140
	Upgrade of Communications Systems	\$36,453	\$0	\$5,294	\$33,567	\$248,709	\$15,398	\$13,075	\$426,167
IT and Cumunications	Upgrade/Replacement of Operational CCTVs	\$0	\$C	\$0	\$C	\$14,516	\$0	\$0	\$14,516
IT and C cmmmications	stern	0\$	3\$	0\$	J\$	\$16,943	\$4,229	\$0	\$21,172
		\$855	\$[\$3,833	\$C	0\$	\$0	\$3,062	\$\$71,220
	SIP - TOTAL OBLIGATIONS	\$19,129,017	\$8,108,662	\$8,048,316	\$18,669,538	\$10,945,788	\$18,851,695	\$15,946,327	\$224,997,496
	Other Than Personnal SIP Costs (contracts, inventory, equipment, supplies)	\$18,706,379	\$7,848,121	\$7,616,590	\$17,655,877	\$10,360,204	\$18,315,618	\$15,215,716	\$215,535,221
	GLSSIP Project-Specific Personnel Compensation and Benefits (PC&B)	\$422,638	\$260,541	\$1,031,326	\$1,012,661	\$585,584	\$536,077	\$730,611	\$9,462,175
	Misoellaneous SIP Costs (non project-s; ecufic expenses and administrative PC &3 costs)	CQ\$	1¢	\$5,23	\$L	\$0	20	\$ 5,00.2	\$871,220

GLS Seaway Infrastructure Program (SIP) Obligations (FYs 2009-2023)

GLS Seaway Infrastructure Program (SIP) FY 2025 Request and FY 2026-2029 Estimates

INFRASTRUCTURE CATEGORY	PROJECT TITLE	FY 2025 REOTEST	FY 2026 FSTIMATE	FY 2027 ESTIMATE	FY 2028 ESTIMATE	FY 2029 ESTIMATE	FIVE-YEAR ESTIMATES
Locks and Associated Structures	Rehabilitation of Concrete at Eisenhower Lock	\$1,250,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,250,000
Locks and Associated Structures	Rehabilitation of Concrete at Snell Lock	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000
Locks and Associated Structures	Replacement of Recess Covers at Both Locks	\$50,000	I	I	I	I	\$50,000
Locks and Associated Structures	Rehabilitation of Stop Logs at Both Locks	\$1,000,000	\$1,000,000	\$1,500,000	I	1	\$3,500,000
Locks and Associated Structures	Upgrade of Fendering on Approach Walls and Miter Gates at Both Locks	\$200,000	\$200,000	\$200,000	\$200,000	\$100,000	000'006\$
Lock Equipment	Upgrade of Miter Gate Machinery at Both Locks		\$500,000	\$1,000,000	\$2,000,000	\$1,000,000	\$4,500,000
Lock Equipment	Repair/Replacement of Piping and Valves at Both Locks	\$50,000					\$50,000
Lock Equipment	Rehabilitation of Access to and Machinery in Crossovers and Recesses at Both Locks	\$100,000	-	I		I	\$100,000
Lock Equipment	Rehabilitation of Hands-Free Mooring Equipment at Both Locks	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
Utilities	Upgrade of Electrical Distribution Equipment	\$1,500,000	\$300,000	\$300,000	\$300,000	\$200,000	\$2,600,000
Utilities	Upgrade of Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	\$150,000	-	I	-	-	\$150,000
O&M Equipment and Work Vehicles	Replacem ent of Heavy and Light E quipment and Vehicles	\$1,500,000	\$1,000,000	\$1,000,000	000'008\$	\$700,000	\$5,000,000
Buildings and Grounds	Replacement of Paving and Drainage Infrastructure	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$7,500,000
Buildings and Grounds	Rehabilitation/Replacement of Massena, N.Y. Facilities	\$6,000,000	\$7,750,000	\$8,500,000	\$9,250,000	\$11,250,000	\$42,750,000
Buildings and Grounds	Rehabilitation of Eisenhower Lock Highway Tunnel	\$200,000		I		I	\$200,000
Buildings and Grounds	Repair/Replacement of Security Fencing	\$150,000	\$400,000	\$100,000		-	\$650,000
Seaway International Bridge	Capital Improvements at the South Channel Span	000'006\$	\$550,000	\$400,000	\$400,000	\$400,000	\$2,650,000
IT and Communications	Upgrade of Seaway Vessel Traffic Control System	\$400,000	\$600,000	\$750,000	\$800,000	\$100,000	\$2,650,000
IT and Communications	Upgrade of Lock Controls	\$300,000	-	I	I	I	\$300,000
IT and Communications	Upgrade of Communications Systems	-	-	\$100,000	\$100,000	\$100,000	\$300,000
	TOTAL	\$16,400,000	\$15,950,000	\$17,500,000	\$17,500,000	\$17,500,000	\$84,850,000

<u>Nota</u> : Dollar amounts for SIP projects are, in most cases. ''Project feashility.'' estimates that can vary by an industry-recognized 20-30 percent. Funding for each year of the SIP is constrained to annual funding targets as approved by the Secretary and OMB and subject to annual appropriations.