



**Saint Lawrence Seaway Development Corporation**

# **Seaway Asset Renewal Program (ARP) Annual Report to Congress**



**Fiscal Year 2016**

## **TABLE OF CONTENTS**

	<u>Page</u>
Background and Summary .....	1
ARP Economic Impacts to Upstate New York .....	4
FY 2016 ARP Project Updates .....	5
ARP Obligations (FYs 2009-2016) <i>(Table)</i> .....	16
ARP Funding Summary (FYs 2009-2016) <i>(Table)</i> .....	18

## **Background and Summary**

As directed in the Senate Report (S. Rept. 114-243) of S. 2844 (Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2017), the Saint Lawrence Seaway Development Corporation (SLSDC or Corporation) is providing an annual report to the House and Senate Appropriations Committees on the status of its infrastructure Asset Renewal Program (ARP). Annual reports are expected to be sent to the Committees over the life of the program. In addition, Committee staff will be updated throughout each year, as needed and upon request, on any significant changes to the plan's schedule, estimates, or execution.

The start of the ARP in 2009 represented the first time in the SLSDC's 50-year 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, the Seaway International Bridge, and other Corporation-owned facilities and assets located in Upstate New York. None of the ARP projects increase the authorized depth or width of the navigation channel or the size of the lock facilities.

The Seaway is comprised of perpetual assets (locks, channels, an international bridge, highway tunnel, vessel traffic control system, and accompanying facilities and equipment), which require capital reinvestment in order to continue to operate safely, reliably, and efficiently. The U.S. portion of the St. Lawrence Seaway was built in the late 1950s at an original cost of approximately \$130 million. Prior to the start of the ARP in FY 2009, only \$47 million in capital expenditures had been cumulatively invested in the U.S. Seaway locks since they opened in 1959. Without sufficient investment in the SLSDC's perpetual assets, the future availability and reliability of the U.S. section of the St. Lawrence Seaway would be at risk. Although the SLSDC has maintained a 99 percent reliability rate over its history, the ARP is necessary to accomplish this level in the future.

In FY 2016, the SLSDC obligated \$10.9 million on 15 ARP projects, which primarily included obligations of \$9.2 million for the first phase of replacing the SLSDC's tugboat Robinson Bay and \$1.6 million to continue installation of hands-free mooring system technology at Eisenhower Lock.

Each year following enactment of the SLSDC's appropriation, Corporation engineering, maintenance, and program officials finalize its ARP internal spending plan to re-allocate funding, deferring and accelerating projects as needed. In addition, SLSDC officials are continually making on-going internal budget adjustments throughout each fiscal year to ensure that current priority projects are funded. The flexibility to make the appropriate project and/or funding adjustments has been a major factor in the SLSDC's success in managing and implementing the program. As noted in recent budget request submissions, the SLSDC expects to extend the ARP beyond the initial estimated end date in FY 2018 in order to complete all planned projects and transition to a regularly scheduled capital program.

Through the first eight years of ARP funding (FYs 2009-2016), the SLSDC has obligated \$120 million on 48 separate projects (*see page 16*). These projects included maintenance dredging in the U.S. portion of the Seaway navigation channel, lock culvert valve machinery upgrade to hydraulic operation, structural rehabilitation and corrosion prevention work on the Seaway International Bridge, gatelifter upgrades, and miter gate rehabilitation, as well as various other structural and equipment repairs and/or replacement.

Although the majority of ARP work is completed by contractors, the SLSDC's federal workforce is directly responsible for completing several of the maintenance-related projects as well as pre-contract work, including preparation of designs, specifications, and drawings. In FY 2016, the SLSDC expended \$478,000 in personnel compensation from its "Operations and Maintenance" program budget for ARP-related staff time. Since the start of the program in FY 2009, SLSDC personnel compensation associated with the ARP has totaled \$5.2 million.

The SLSDC's ARP closely coordinates with infrastructure renewal work completed or planned by the Canadian St. Lawrence Seaway Management Corporation (SLSMC) and supports the engineering considerations highlighted in the November 2007 binational *Great Lakes St. Lawrence Seaway Study*.<sup>1</sup> The study evaluated the infrastructure needs of the U.S. and Canadian Great Lakes Seaway System and assessed the economic, environmental, and engineering implications of those needs pertaining to commercial navigation. As part of its ARP planning and implementation processes, the SLSDC is working closely with the SLSMC and U.S. Army Corps of Engineers (USACE) to leverage their expertise.

The Canadian Seaway locks along the St. Lawrence River are identical in age and design to those owned by the U.S. SLSDC. In the past decade prior to the SLSDC's ARP, the Canadian Government began addressing its own Seaway asset capital reinvestment needs. Together, the SLSDC and SLSMC have spent more than \$480 million over the past five years (2012-2016) on asset renewal projects. Many of the lock-related ARP improvements at the U.S. locks will parallel activities either completed, underway, or planned at the Canadian Seaway locks.

These significant investments clearly demonstrate the commitment of the United States and Canada to the long-term health and vitality of the Great Lakes Seaway System, complementing similar investments being made by many other Seaway System stakeholders, including ports, terminals, and carriers.

In January 2015, a report was released highlighting public and private investments in the Great Lakes St. Lawrence Seaway navigation system<sup>2</sup>. The report, which was based on a survey of more than 450 U.S. and Canadian public organizations and private companies, found that \$6.9 billion is being spent on asset renewal and infrastructure improvements in the Great Lakes St. Lawrence Seaway navigation system by both the public and private sectors. Between 2009-2013 more than \$4.7 billion was invested in ships, ports and terminals, and waterway infrastructure, while an additional \$2.2 billion in capital spending has been committed for infrastructure investments in the system by companies and governments.

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<sup>1</sup> [www.greatlakes-seaway.com/en/pdf/GLSL-Final-Report-En.pdf](http://www.greatlakes-seaway.com/en/pdf/GLSL-Final-Report-En.pdf)

<sup>2</sup> *Infrastructure Investment of the Great Lakes St. Lawrence Seaway System*, Martin Associates, January 2015.

In order to help ensure that the St. Lawrence Seaway opens each spring for navigation as scheduled, the SLSDC includes monetary incentives and disincentives for ARP contractors working on lock structures and operating components during the off-season winter months. In addition, the SLSDC reserves the right to place additional personnel and/or equipment necessary to complete the winter work at the expense of the contractor. In FY 2016, no incentives were awarded or disincentives assessed.

Since the ARP's inception, the SLSDC's procurement division, in working with the agency's engineering team, recognized the need to be able to award ARP-related support contracts quickly. Pursuant to Federal Acquisition Regulation (FAR), Subpart 16.5, the SLSDC advertised on Federal Business Opportunities (FedBizOpps.gov) in FY 2015 for qualified architecture/engineering (A/E) firms to support the ARP under an Indefinite Delivery Contract (IDC) for a base year with options for four additional years. Three firms received IDC awards in FY 2016 for these services – Bergmann Associates, Rochester, N.Y., Parsons Brinckerhoff, Buffalo, N.Y., and NKB & RAM-TECH, Syracuse N.Y. The SLSDC currently plans to use these A/E contractors to receive design support and expert advice on project plans, specifications, and drawings for those ARP projects that require such planning. As support work is needed, the SLSDC plans to request proposals from the three firms in a streamlined process, with negotiations, as required, limited to only those firms. The SLSDC has maintained IDCs with A/E firms since the start of the ARP in FY 2009.

ARP baseline project estimates developed by the SLSDC used one or more of four estimation methods, as applicable: (1) historical costs for similar work completed previously by the SLSDC, (2) consultation with the U.S. Army Corps of Engineers (USACE) for similar work it completed at other U.S. locks, (3) consultation with the SLSMC for similar work it completed at the Canadian Seaway locks, and/or (4) utilization of data from RSMeans®, which serves as North America's leading supplier of construction cost information. Estimates also consider final contract totals for similar ARP work awarded during the programs first eight years (FYs 2009-2016).

This annual report provides the Appropriations Committees with updates on: (1) ARP economic impacts to Upstate New York; (2) ARP Capital Investment Plan summary (FYs 2017-2021); (3) FY 2016 ARP project updates; (4) ARP obligations by project for FYs 2009-2016; and (5) ARP funding summary for FYs 2009-2016.

## **ARP Economic Impacts to Upstate New York**

The SLSDC's ARP is resulting 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, approximately half of the ARP funds obligated during the program's first eight years, totaling nearly \$60 million, were awarded within the region.

In addition to these contracts, the ARP is producing \$1.5-\$2.5 million in additional economic benefits to the region (local permanent and temporary hires, local spending on supplies and equipment, lodging, meals, etc.) each year.

On a larger scale, maritime commerce on the Great Lakes Seaway System annually sustains more than 225,000 U.S. and Canadian jobs, \$35 billion in transportation-related business revenue, and \$5 billion in federal, state, provincial, and local taxes. The binational waterway also provides approximately \$4 billion in annual transportation cost savings compared to competing rail and highway routes.<sup>3</sup>



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<sup>3</sup> *Great Lakes Navigation System: Economic Strength to the Nation*, U.S. Army Corps of Engineers, January 2009.

## **FY 2016 ARP Project Updates**

The following information provides an update on the 12 ARP projects that were funded in FY 2016 with obligations in excess of the micro-purchase threshold level of \$3,500<sup>4</sup>. The final selection of projects was based on those identified either during the ARP's initial baseline plan development or during on-going program review.

In addition, the SLSDC continues to use contract vehicles that promote 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.

### **(1) Project No. 7: Both Locks – Culvert Valves – Replace with Single Skin Valves**

General Description: This project is for replacing the double skin culvert valves used for filling and emptying the locks with single skin valves. Cracking of major structural members has occurred and the structural members are not accessible for inspection, blast cleaning, and painting given the double-skin construction. The culvert valves are more than 50 years old and are corroding from the inside. The new single skin valves will provide access to the structural members for inspection and maintenance. The failure of a culvert valve would cause a delay to shipping while the damaged valve was removed and replaced.

Type of Project:<sup>5</sup> Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2016 Request Estimate (February 2015): \$0

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$22,641

Total Obligations (FYs 2009-2016): \$2,189,879 (FYs 2010-2016)

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<sup>4</sup> There were three (3) ARP projects with FY 2016 obligations below the micro-purchase threshold of \$3,500 that are not reported in the project update section: Project No. 10: Both Locks – Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities (\$1,442); Project No. 41: Snell Lock – Install Ice Flushing System Technologies (\$498); and Project No. 60: Both Locks – Improve Access to and Rehabilitate Machinery in Crossovers and Recesses (\$396).

<sup>5</sup> The SLSDC's ARP includes capitalized projects and equipment as well as non-capitalized, maintenance-related projects. Capital projects and equipment are defined as those of a durable nature that may be expected to have a period of service of more than a year without material impairment of its physical condition and includes equipment, improvements and modifications to existing structures. Non-capital maintenance projects include those that do not materially add to the value of the property nor appreciably prolong the life of the infrastructure but merely keep it in an ordinarily efficient operating condition. Expenditures for these maintenance projects are recognized as operating costs.





*SLSDC crews prepare one of the new single-skin culvert valves for testing at the U.S. Seaway locks in Massena, N.Y.*

Project Update (as of September 30, 2016): As reported in the *FY 2014 ARP Annual Report to Congress*, the SLSDC awarded a contract in September 2014 for \$1.4 million to Custom Fabrications and Coatings, Inc., Granite City, Ill., for the purchase of six single-skin culvert valves and associated struts. The SLSDC sought the expertise of the U.S. Army Corps of Engineers to design the valves to ensure proper and safe operation in the Seaway locks. Two of the valves were fabricated and delivered to the SLSDC in FY 2015 with the additional four valves and struts to be fabricated in FY 2016.

In FY 2016, the SLSDC issued two contract modifications to Custom Fabrication and Coatings, Inc., for \$21,358 for additional bushings and strut and valve revisions. The new valves will be installed at the two U.S. locks during future winter maintenance periods, starting in FY 2018.

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**(2) Project No. 9: Corporation Equipment – Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment**

General Description: This is an ongoing program 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. Motor vehicles will be replaced with alternative fuel vehicles whenever possible.

Type of Project: Capital Equipment / Capital Project / Non-Capital Maintenance Project

Mission Objective: Lock Operation Upgrade and Maintenance / Waterway Management

FY 2016 Request Estimate (February 2015): \$0

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$18,486

Total Obligations (FYs 2009-2016): \$2,769,371 (FYs 2009-2016)



Project Update (as of September 30, 2016): In FY 2016, the SLSDC purchased an electric vehicle for use by the SLSDC Lock Operations Division in Massena, N.Y. The purchase was made through GSA Heartland Finance Center, Kansas City, Mo. (GSA AutoChoice), for \$16,160.

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**(3) Project No. 12: Corporation Equipment – Upgrade/Replace Floating Plant/Tugs**

General Description: This is an ongoing program to rehabilitate and/or replace the Corporation's floating plant that is utilized for maintaining the locks and navigation channels. This multi-year project includes: replacing the SLSDC's tugboats *Robinson Bay* and *Performance*; upgrading the buoy tender barge; purchasing a boat to be used for hydrographic surveying with upgraded surveying equipment and software; purchasing a small boat for emergency response; purchasing a spud barge/scow for work on navigational aids and for emergency/spot dredging; and rehabilitating the SLSDC's crane barge/gatelifter *Grasse River*, which would have to be utilized if a miter gate were damaged and had to be replaced.

Type of Project: Capital Equipment / Capital Project / Non-Capital Maintenance Project

Mission Objective: Lock Operation Upgrade and Maintenance / Waterway Management

FY 2016 Request Estimate (February 2015): \$10,000,000

FY 2016 Internal Spending Plan (December 2015): \$10,000,000

FY 2016 Obligations: \$9,214,579

Total Obligations (FYs 2009-2016): \$17,336,414 (FYs 2009-2016)



*Computerized image of the SLSDC tugboat replacement design for the Robinson Bay.*

Project Update (as of September 30, 2016): In FY 2016, the SLSDC issued a solicitation for the construction of a new tug to replace the *Robinson Bay*. The new tug was designed with many improvements including more energy efficient engines that produce less carbon emissions, greater ice breaking capabilities, quarters for the crew to stay on board during buoy tending operations, and a crane on the stern for handing a buoy should one need replacing during the navigation season. These improvements provide greater functionality and operational efficiencies as well as reducing

the carbon footprint as compared to the *Robinson Bay*. The solicitation for SLSDC's tug construction project for the new tugboat was issued on March 4, 2016 as a small business set-aside.

The project was divided into two phases with Phase I being the production engineering and purchase of long lead items. Phase II was anticipated to be awarded in the future for the actual fabrication/construction based on appropriations funding availability. The original response date for receipt of proposals was April 18, 2016. Following several question-and-answer documents and eight amendments, the solicitation response date was extended to June 1, 2016.

The SLSDC received proposals from four responsible offerors meaning that they were all small businesses according to their System for Award Management (SAM) registrations. On September 26, 2016, the SLSDC made an award to Technology Associates Inc. (TAI), New Orleans, La., a marine architect and engineering firm, for \$9.2 million (small business; negotiated procurement; award based on best value using trade-off procedures). TAI teamed with a local shipyard, Gulf Island Shipyard, Jennings, La., in its proposal.

In addition to the tugboat contract, the SLSDC also issued a contract for an upgrade to its gatelifter, *Grasse River*, ballast control equipment. The contract was awarded to Electronic Marine System, Rahway, N.J., for \$40,441 (small business; simplified acquisition; award based on best value using trade-off procedures).

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**(4) Project No. 13: Corporation Facilities – Replace Roofs**

General Description: This project supports the replacement of roofs on the Corporation's various buildings and facilities in Massena, N.Y., as required. Most of the roofs are made of insulated ethylene propylene diene monomer (EPDM) and will have reached the end of their service life during the ARP. Throughout the ARP, the SLSDC includes funding for roofing projects based on age, warranty status, and annual inspections.



*Workers install a new EPDM roofing system at the SLSDC's maintenance facility in Massena, N.Y.*

Type of Project: Capital Project

Mission Objective: Facility-Equipment Upgrade and Maintenance

FY 2016 Request Estimate (February 2015): \$0

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$27,340

Total Obligations (FYs 2009-2016): \$564,907 (FYs 2009, 2011-2013, 2015-2016)

Project Update (as of September 30, 2016): The SLSDC issued a contract modification to Sierra Delta Contracting, LLC, Sackets Harbor, N.Y., for \$27,340 for additional roofing work at the SLSDC's maintenance facility. The initial contract was awarded in FY 2015 for \$283,426 to remove existing and install new EPDM roofing systems. The FY 2016 modification was made during the roof installation to address additional building roof sections in need of replacement.

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**(5) Project No. 15: Eisenhower Lock – Highway Tunnel – Rehabilitate**

General Description: 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, upgrading the tunnel lighting, replacing damaged/missing tiles from the walls and ceiling, replacing deteriorated/damaged gratings and railings, stabilizing/repairing wing walls at the tunnel approaches and clearing tunnel drains which are becoming plugged with concrete leachate products. Due to the fact that this tunnel is the only means of access to the facilities noted above, any problems that would make it necessary to close the tunnel for repair would have very significant impacts.

Type of Project: Capital Project / Non-Capital Maintenance Project

Mission Objective: Tunnel and Bridge Maintenance

FY 2016 Request Estimate (February 2015): \$0

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$10,747

Total Obligations (FYs 2009-2016): \$1,586,976 (FYs 2009-2012, 2014-2016)

Project Update (as of September 30, 2016): In FY 2016, the SLSDC issued a contract modification to Phoenix Group Contracting, LLC, Queensbury, N.Y., for \$10,747 for additional upgrades to the electrical distribution system and LED lighting system in the tunnel at Eisenhower Lock. The work was completed in FY 2016. The original contract was awarded in FY 2014 for \$347,220.

**(6) Project No. 20: Both Locks – Upgrade Lock Status/Controls**

General Description: This project is for upgrading the lock/equipment status systems and lock operating controls at both Eisenhower and Snell Locks. At present, much of the equipment at both locks is monitored and controlled by computerized systems through programmable logic controllers (PLCs) with redundant systems installed to replace the hard-wired backup controls. Adding control and status of all critical components will provide the ability to more closely monitor that equipment and, as a result, improve the effectiveness of preventive maintenance activities and increase reliability.

Type of Project: Capital Project / Non-Capital Maintenance Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2016 Request Estimate (February 2015): \$0

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$64,749

Total Obligations (FYs 2009-2016): \$487,158 (FYs 2009-2016)

Project Update (as of September 30, 2016): In FY 2016, the SLSDC continued to work on infrastructure installation and system programming for its lock control and lock equipment monitoring system. The SLSDC awarded a task order as part of its FY 2016 contract with Optimization Technology, Inc., Rush, N.Y. (large business; task order) for lock control enhancements. The FY 2016 task order was \$64,749 for upgrades to the lock control interface and servers and purchase of software and licenses.

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**(7) Project No. 23: Both Locks – Install Hands-Free Mooring System**

General Description: This project is for installing hands-free vacuum mooring equipment at both Eisenhower and Snell Locks to hold vessels in place while they are in the lock instead of using wire ropes deployed by the vessel's crew to tie the vessel to bollards on the lock wall. In May 2015, the Seaway's hands-free mooring (HFM) technology was recognized by the Organization for Economic Cooperation and Development (OECD) with the Promising Innovation in Transport Award. Once fully implemented at the U.S. and Canadian Seaway locks, the system will produce a number of significant benefits involving workplace safety, carrier operating costs, lower emissions, transit efficiencies, and system competitiveness. The Canadian SLSMC initiated this project and began testing the new technology at their Welland Canal locks in 2007. Testing led to a fourth generation design, which includes three units with two vacuum pads on each unit, mounted in slots in the lock chamber wall. The SLSMC and Transport Canada are committed to installing the system at the Canadian Seaway locks by the end of 2017.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2016 Request Estimate (February 2015): \$8,000,000

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$1,586,248

Total Obligations (FYs 2009-2016): \$13,029,161 (FYs 2014-2016)

Project Update (as of September 30, 2016): In FY 2016, the SLSDC continued its work to procure, install, and commission the Seaway HFM system for operation at the two U.S. locks.

During the winter months in FY 2016, work at Eisenhower Lock began to construct three slots in the lock wall and install the system's rails. The work was funded in FY 2015 with an award to Kubricky Construction Corp., Gansevoort, N.Y., for \$5.3 million. Additional work will be required in FY 2017 to complete the installation. The SLSDC anticipates the HFM system at Eisenhower Lock to be operational by the end of the 2017 navigation season.

Also during the year, the SLSDC awarded three contracts and three contract modifications:

- A contract to Vet4U, LLC, Baldwinsville, N.Y. (small business; sealed bid; award based on lowest price), for \$1.3 million for construction of a building at Eisenhower Lock to support the new HFM system at the lock.
- A contract to Quality Control Services, Cleveland, Ohio (sole source 8(a) contract), for a not-to-exceed \$150,000 to perform inspection services for the construction work during the 2017 winter work period.
- A contract to Rampart Plumbing and Heating Supply, Inc., Colorado Springs, Colo. (small business; simplified acquisition; award based on lowest price, technically acceptable), for \$11,263 for materials required for the HFM system utilities.



*During the winter months of FY 2016, the U.S. Eisenhower Lock was prepared for the new hands-free mooring system with cores cut into the northside concrete wall and vertical rails installed.*

- A contract modification for \$100,000 to Bergmann Associates, Rochester, N.Y., to continue review and structural design revisions. The original contract was awarded in FY 2014.
- A contract modification for \$21,513 to Cavotec Canada, Inc., Markham, Ontario, to purchase five open top shipping containers to be used for storage of the HFM units until they can be installed at Eisenhower Lock. The original contract was awarded in FY 2015.
- A contract modification for \$3,331 to Quality Control Services, Cleveland, Ohio, for additional work required as part of its inspection services of construction work during the 2016 winter work. The original contract was awarded in FY 2015.

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**(8) Project No. 43: Both Locks – Miter Gate Machinery**

General Description: This project is for rehabilitating the operating machinery for the miter gates at both locks. This machinery is more than 50 years old and needs to be rebuilt to insure its continued reliability. This work will be completed by the original equipment manufacturer.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2016 Request Estimate (February 2015): \$0

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$5,827

Total Obligations (FYs 2009-2016): \$5,449,932 (FYs 2011-2016)

Project Update (as of September 30, 2016): During FY 2016, the SLSDC purchased supplies, equipment, and spare parts to support the SLSDC miter gate machinery project at the two U.S. locks. All work was completed by SLSDC employees during FY 2016.

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**(9) Project No. 58: Corporation Facilities – Upgrades to Meet Sustainability and Energy Goals**

General Description: This project is to implement the recommendations of an energy/water conservation audit and a retro-commissioning study both of which were conducted by consultants. These upgrades will be made to meet the sustainability



requirements of the various executive orders and federal laws.

Type of Project: Capital Project

Mission Objective: Facility-Equipment Upgrade and Maintenance

FY 2016 Request Estimate (February 2015): \$0

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$3,564

Total Obligations (FYs 2009-2016): \$146,836 (FYs 2011-2016)

Project Update (as of September 30, 2016): In FY 2016, the SLSDC purchased supplies and materials to fabricate two steel clad structures needed to protect the propane alternative fueling station and the stored inventory of propane tanks and cylinders. All work was completed and installed by SLSDC employees during FY 2016.

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**(10) Project No. 59: Corporation Facilities – Communications Improvements**

General Description: This is a multi-year project to upgrade the communication equipment/systems utilized by SLSDC Operations and Maintenance personnel and by Vessel Traffic Controllers to communicate with commercial vessels. Upgrading this equipment is intended to improve the quality and reliability of these communications, which are critical to safe and efficient navigation in the Seaway. In the event of an emergency, SLSDC personnel are currently unable to communicate with other workers either nearby in the locks or up at the ground level when working in the machinery recesses at both Eisenhower and Snell Locks. Installing new equipment to provide this service will increase the safety for personnel working in these areas and improve their ability to troubleshoot and resolve machinery problems at these locations.

Type of Project: Capital Project

Mission Objective: Facility-Equipment Upgrade and Maintenance

FY 2016 Request Estimate (February 2015): \$0

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$3,996

Total Obligations (FYs 2009-2016): \$32,996 (FYs 2015-2016)

Project Update (as of September 30, 2016): The SLSDC purchased supplies and materials to support its hard-wired radio system for SLSDC employees and contractors working in the recess areas of both locks to communicate and seek assistance in the event of an incident or emergency. This project is one component of the SLSDC's pro-active approach to enhance the safety equipment and protocols for SLSDC workers and contractors. The system is expected to be fully installed and operational during the 2017 navigation season.

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**(11) Project No. 61: Both Locks – Replace Recess Covers on Lock Walls**

General Description: 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 recess at both locks. These recess covers are the original covers and will be over 55 years old when they are replaced. They have deteriorated due to the use of salt to keep the areas in which these covers are located clear of ice and they have been damaged by trucks and heavy equipment driving over them. The plan is to replace them with more durable materials designed for greater loads.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance / Facility-Equipment Upgrade and Maintenance

FY 2016 Request Estimate (February 2015): \$0

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$11,532

Total Obligations (FYs 2009-2016): \$13,732 (FYs 2015-2016)

Project Update (as of September 30, 2016): In FY 2016, the SLSDC purchased supplies and materials totaling \$11,532 to replace the concrete recess covers on the lock walls with steel covers. During FY 2016, two new steel recess covers were fabricated and installed by SLSDC employees. The SLSDC will continue to work on replacement of all recess covers over the next several years.

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**(12) Project No. 65: Both Locks – Install Lock Wall Guardrails**

General Description: This project is to install new fall protection guardrails at the north walls of both Eisenhower and Snell Locks. It has been determined that employees are exposed to fall hazards when securing mooring lines during vessel transits through the

locks. The guardrails will provide fall protection and will also be designed to support the structural loads and raise the working level of the secured mooring lines. Installing the guardrails should significantly increase safety for SLSDC employees by mitigating potential fall hazards and reducing strain/sprain injuries related to bending and kneeling while working at the lock walls.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance / Facility-Equipment Upgrade and Maintenance

FY 2016 Request Estimate (February 2015): \$0

FY 2016 Internal Spending Plan (December 2015): \$0

FY 2016 Obligations: \$14,425

Total Obligations (FYs 2009-2016): \$563,104 (FYs 2015-2016)

Project Update (as of September 30, 2016): During FY 2016, the SLSDC issued a contract modification for \$12,546 to Rand and Jones Enterprises, Buffalo, N.Y., for additional work required for the new guardrail safety system along the north walls at both locks. The original contract was awarded in FY 2015 and the guardrail systems were installed during the 2015 navigation season.

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# SLSDC ARP Obligations (FYs 2009-2016)

ARP #	ARP Project Description	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TOTAL
1	Both Locks - Replace Fendering on Approach Walls	\$241,600	\$8,091	\$0	\$0	\$0	\$188,725	\$140	\$0	\$438,556
2	Both Locks - Rehabilitate Downstream Miter Gates	\$0	\$0	\$3,539,935	\$8,384	\$3,009,854	\$203,666	\$0	\$0	\$6,761,839
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	(Comb. w/ No. 14)	\$35,422	\$0	\$0	\$0	\$0	\$0	\$0	\$35,422
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	\$4,117,050	\$344,915	\$3,965,005	\$539,889	\$203,678	\$0	\$0	\$0	\$9,170,537
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	\$46,698	\$6,638	\$23,781	\$28,335	\$27,906	\$34,254	\$1,700	\$0	\$169,312
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	\$3,102,878	\$5,680,707	\$0	\$0	\$0	\$0	\$0	\$0	\$8,783,585
7	Both Locks - Culvert Valves - Replace With Single Skin Valves	\$0	\$326,898	\$65,591	\$302,468	\$162	\$1,370,028	\$102,091	\$22,641	\$2,189,879
8	Floating Navigational Aids - Replace	\$61,254	\$54,576	\$0	\$0	\$0	\$68,149	\$125,562	\$0	\$340,975
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles, and Shop Equipment	\$1,574,504	\$481,052	\$108,038	\$81,623	\$137,393	\$227,151	\$141,124	\$18,486	\$2,769,371
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	\$19,594	\$231,269	\$93,613	\$28,003	\$17,099	\$38,320	\$0	\$1,442	\$429,340
11	Fixed Navigational Aids - Rehabilitate	\$0	\$10,998	\$16,217	\$21,048	\$29,210	\$14,199	\$22,456	\$0	\$114,128
12	Corporation Equipment - Upgrade/Replace Floating Plant	\$678,745	\$1,627,925	\$1,908,563	\$2,160,169	\$860,413	\$572,622	\$313,398	\$9,214,579	\$17,336,414
13	Corporation Facilities - Replace Roofs	\$143,949	\$0	\$3,348	\$89,024	\$17,820	\$0	\$283,426	\$27,340	\$564,907
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	\$921,837	\$1,829,621	\$85,481	\$0	\$0	\$0	\$0	\$0	\$2,836,939
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	\$26,636	\$271,804	\$99,459	\$1,523	\$0	\$1,143,224	\$33,583	\$10,747	\$1,586,976
16	Corporation Technologies - Upgrade GPS/AIS/TMS	\$100,997	\$76,451	(\$3,328)	\$10,000	\$6,350	\$0	\$0	\$0	\$190,470
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	\$4,279,556	\$0	\$3,662,267	\$99,714	\$100	\$100	\$19,542	\$0	\$8,061,279
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	\$0	\$487,750	\$109,490	\$268,549	\$0	\$0	\$0	\$0	\$865,789
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	\$0	\$753,400	\$306,847	\$41,304	\$1,465	\$420	\$7,384	\$0	\$1,110,820
20	Both Locks - Upgrade Lock Status/Controls	\$8,558	\$139,805	\$89,507	\$37,549	\$76,722	\$32,570	\$37,698	\$64,749	\$487,158
21	Both Locks - Compressed Air Systems - Upgrade/Replace	\$19,878	\$787,549	\$3,381	\$986	\$0	\$0	\$4,154	\$0	\$815,948
22	Both Locks - Install Vessel Self Spotting Equipment	\$0	\$0	\$0	\$0	\$0	\$485,201	\$1,491	(\$65,000)	\$421,692
23	Both Locks - Install Hands-Free Mooring System	\$0	\$0	\$0	\$0	\$0	\$686,074	\$10,756,839	\$1,586,248	\$13,029,161
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	\$37,561	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,561
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	\$4,148	\$0	\$4,007	\$0	\$0	\$0	\$0	\$0	\$8,155
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	\$0	\$418,000	\$12,144	\$0	\$1,115,266	\$18,572	\$2,380	\$0	\$1,566,362
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	\$0	\$33,776	\$5,537	\$8,070	\$167	\$0	\$1,811	\$0	\$49,361
29	Eisenhower Lock - Walls, Sills, and Culverts - Rehabilitate Concrete	\$0	\$209,395	\$0	\$0	\$0	\$0	\$0	\$0	\$209,395
31	Both Locks - Rehabilitate Upstream Miter Gates	\$2,201,585	\$2,478,896	\$347,662	\$14,961	(\$750)	\$42,445	\$0	\$0	\$5,042,354
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	\$0	\$12,734	\$346,600	\$0	\$2,099,934	\$0	\$0	\$0	\$2,501,713
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	\$0	\$0	\$0	\$0	\$6,938	\$301,737	\$152	\$0	\$308,827
34	Both Locks - Improve Ice Control	\$0	\$7,462	\$0	\$0	\$0	\$0	\$0	\$0	\$7,462
38	Both Locks - Upgrade/Replace Emergency Generators	\$0	\$0	\$0	\$0	\$1,764,008	\$344,313	\$32,774	\$0	\$2,141,095
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	\$0	\$0	\$0	\$189,763	\$25,721	\$23,568	\$17,936	\$0	\$256,988
41	Snell Lock - Install Ice Flushing System Technologies	\$0	\$0	\$272,000	\$11,477,293	\$1,577,272	\$90,045	\$128,144	\$498	\$13,545,252
42	Both Locks - Miter Gates - Structural Rehabilitation	\$0	\$0	\$0	\$210	\$2,898,819	\$3,740,613	\$0	\$0	\$6,639,642
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	\$0	\$0	\$133,364	\$1,207	\$505	\$3,740,933	\$1,568,096	\$5,827	\$5,449,932
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	\$0	\$24,183	\$21,097	\$352,347	\$20,143	\$5,985	\$977	\$0	\$424,732
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	\$0	\$0	\$13,042	\$0	\$298,391	\$794,473	\$5,631	\$0	\$1,111,537
54	Corporation Facilities - Administration Building - Replace Elevator	\$0	\$0	\$140,346	\$0	\$0	\$0	\$0	\$0	\$140,346
55	Corporation Facilities - Maintenance Building - Replace Fuel Tanks	\$0	\$0	\$189,350	\$2,350	\$0	\$0	\$0	\$0	\$191,700
56	Corporation Facilities - Duty Free Store Property - Upgrade Security	\$0	\$0	\$13,025	\$0	\$0	\$0	\$0	\$0	\$13,025
57	Corporation Technologies - Upgrade Network Security	\$0	\$0	\$158,536	\$16,998	\$8,687	\$0	\$0	\$0	\$184,221
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	\$0	\$0	\$47,511	\$57,036	\$8,180	\$22,140	\$8,405	\$3,564	\$146,836
59	Corporation Facilities - Communications Improvements	\$0	\$0	\$0	\$0	\$0	\$0	\$29,000	\$3,996	\$32,996
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	\$0	\$0	\$0	\$0	\$0	\$0	\$716,052	\$396	\$716,448
61	Both Locks - Replace Recess Covers on Lock Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$2,200	\$11,532	\$13,732
65	Both Locks - Install Lock Wall Guardrails	\$0	\$0	\$0	\$0	\$0	\$0	\$548,679	\$14,425	\$563,104
--	Miscellaneous Expenses	\$0	\$443	\$1,700	\$0	\$0	\$0	\$0	\$0	\$2,143
	Asset Renewal Program Total	\$17,587,028	\$16,339,760	\$15,783,116	\$15,838,803	\$14,242,887	\$14,189,527	\$14,912,825	\$10,921,470	\$119,815,416

## NOTES:

- (1) Rounding may affect the addition of rows and columns in the table.
- (2) In FY 2009, ARP Project Nos. 3 and 14 were contractually combined.
- (3) The SLSDC expended an additional \$474,000, \$535,000, \$783,000, \$672,000, \$970,000, \$620,000, and \$478,000 in personnel compensation for staff time associated with ARP work in FYs 2009-2016, respectively.
- (4) The miscellaneous expenses of \$443 in FY 2010 and \$1,700 in FY 2011 were for ARP-related travel costs by SLSDC personnel that could not be linked to a specific ARP project.

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# ARP Funding Summary (FYs 2009-2016)

			FY 2009				FY 2010			
ARP Project No.	ARP Project Title	Total Project Costs Through FY 2016 (Actual)	FY 2009 Congressional Request (02-04-08)	FY 2009 Internal Spending Plan (04-10-09)	FY 2009 Obligations (Actual) (09-30-09)	FY 2010 Congressional Request (05-07-09)	FY 2010 Internal Spending Plan (03-15-10)	FY 2010 Obligations (Actual) (09-30-10)		
1	Both Locks - Replace Fendering on Approach Walls	\$438,566	\$300,000	\$300,000	\$241,800	---	\$10,000	\$8,091		
2	Both Locks - Rehabilitate Downstream Miter Gates	\$6,761,839	\$1,500,000	---	---	\$1,508,000	---	---		
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	\$35,422	\$250,000	(Comb. w/ No. 14)	(Comb. w/ No. 14)	\$251,000	---	\$35,422		
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	\$9,170,537	\$2,000,000	\$2,000,000	\$4,117,060	---	\$325,000	\$344,915		
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	\$169,312	\$250,000	\$250,000	\$46,698	---	\$5,000	\$6,638		
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	\$8,783,585	\$2,000,000	\$2,000,000	\$3,102,878	\$5,773,000	\$4,500,000	\$5,680,707		
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	\$2,189,879	\$600,000	\$600,000	---	\$603,000	\$297,000	\$326,898		
8	Floating Navigational Aids - Replace	\$340,975	\$60,000	\$60,000	\$61,254	\$60,000	\$60,000	\$64,576		
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	\$2,769,371	\$1,750,000	\$1,750,000	\$1,574,504	\$251,000	\$235,000	\$481,052		
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	\$429,340	\$75,000	\$75,000	\$19,594	\$75,000	\$100,000	\$231,269		
11	Fixed Navigational Aids - Rehabilitate	\$114,128	\$100,000	\$100,000	---	\$201,000	\$10,000	\$10,998		
12	Corporation Equipment - Upgrade/Replace Floating Plant/Tugs	\$17,336,414	\$2,000,000	\$2,000,000	\$678,745	\$503,000	\$1,845,000	\$1,627,925		
13	Corporation Facilities - Replace Roofs	\$664,907	\$50,000	\$50,000	\$143,949	---	---	---		
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	\$2,836,939	\$950,000	\$1,200,000	\$921,837	\$1,508,000	\$1,000,000	\$1,829,621		
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	\$1,586,976	\$250,000	\$250,000	\$28,636	---	\$275,000	\$271,804		
16	Corporation Technologies - Upgrade GPS/AIS/TMS	\$190,470	\$100,000	\$100,000	\$100,997	---	---	\$76,451		
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	\$8,061,279	\$5,000,000	\$5,000,000	\$4,279,566	---	---	---		
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	\$865,789	---	---	---	\$503,000	\$500,000	\$487,750		
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	\$1,110,820	---	---	---	\$151,000	\$150,000	\$753,400		
20	Both Locks - Upgrade Lock Status/Controls	\$487,158	---	---	\$8,558	\$151,000	\$200,000	\$139,805		
21	Both Locks - Compressed Air Systems - Upgrade/Replace	\$815,948	---	---	\$19,878	\$1,508,000	\$1,500,000	\$787,549		
22	Both Locks - Install Vessel Self Spotting Equipment	\$421,692	---	---	---	\$251,000	---	---		
23	Both Locks - Install Hands-Free Mooring System	\$13,029,161	---	---	---	---	---	---		
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	\$37,561	---	---	\$37,561	\$201,000	---	---		
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	\$8,155	---	---	\$4,148	\$101,000	\$5,000	---		
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	\$1,566,362	---	---	---	\$201,000	\$200,000	\$418,000		
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	\$49,361	---	---	---	\$201,000	\$200,000	\$33,776		
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	\$0	---	---	---	---	---	---		
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	\$209,395	---	---	---	\$2,010,000	\$2,000,000	\$209,395		
30	Eisenhower Lock - Ice Flushing System - Upgrade	\$0	---	---	---	---	---	---		
31	Both Locks - Rehabilitate Upstream Miter Gates	\$5,042,354	---	\$1,500,000	\$2,201,585	---	\$2,800,000	\$2,478,896		
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	\$2,501,713	---	---	---	---	---	\$12,734		
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	\$308,827	---	---	---	---	---	---		
34	Both Locks - Improve Ice Control	\$7,462	---	---	---	---	---	---		
35	Vessel Mooring Cells - Rehabilitate and Extend	\$0	---	---	---	---	---	\$7,462		
36	Eisenhower Lock - Diffusers - Replace	\$0	---	---	---	---	---	---		
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	\$0	---	---	---	---	---	---		
38	Both Locks - Upgrade/Replace Emergency Generators	\$2,141,095	---	---	---	---	---	---		
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	\$256,988	---	---	---	---	---	---		
40	Both Locks - Extend Guidewalls in Pool	\$0	---	---	---	---	---	---		
41	Snell Lock - Install Ice Flushing System Technologies	\$13,545,252	---	---	---	---	\$100,000	---		
42	Both Locks - Miter Gates - Structural Rehabilitation	\$6,639,642	---	---	---	---	---	---		
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	\$5,449,932	---	---	---	---	---	---		



# ARP Funding Summary (FYs 2009-2016)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2016 (Actual)	FY 2009			FY 2010		
			FY 2009 Congressional Request (02-04-08)	FY 2009 Internal Spending Plan (04-10-09)	FY 2009 Obligations (Actual) (09-30-09)	FY 2010 Congressional Request (05-07-09)	FY 2010 Internal Spending Plan (03-15-10)	FY 2010 Obligations (Actual) (09-30-10)
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	\$0	---	---	---	---	---	---
45	Flow Control Dikes - Rehabilitate	\$0	---	---	---	---	---	---
46	Both Locks - Guldewall Extensions - Rehabilitate	\$0	---	---	---	---	---	---
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	\$0	---	---	---	---	---	---
48	Both Locks - Stiffleg Derricks - Replace	\$0	---	---	---	---	---	---
49	Seaway International Bridge - Replace Deck	\$0	---	---	---	---	---	---
50	Snell Lock - Diffusers - Replace	\$0	---	---	---	---	---	---
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	\$424,732	---	---	---	---	---	\$24,183
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	\$1,111,537	---	---	---	---	---	---
53	Corporation Technologies - Financial Management System - Upgrade/Replace	\$0	---	---	---	---	---	---
54	Corporation Facilities - Administration Building - Replace Elevator	\$140,346	---	---	---	---	---	---
55	Corporation Facilities - Maintenance Building - Replace Fuel Tanks	\$191,700	---	---	---	---	---	---
56	Corporation Facilities - Duty Free Store Property - Security Upgrades	\$13,025	---	---	---	---	---	---
57	Corporation Technologies - Upgrade Network Security	\$184,221	---	---	---	---	---	---
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	\$146,836	---	---	---	---	---	---
59	Corporation Facilities - Communications Improvements	\$32,986	---	---	---	---	---	---
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	\$716,448	---	---	---	---	---	---
61	Both Locks - Replace Recess Covers on Lock Walls	\$13,732	---	---	---	---	---	---
62	Both Locks - Install/Upgrade Air Curtains	\$14,425	---	---	---	---	---	---
63	Both Locks - Install/Electric Pleasure Craft Toll Collection Facility	\$0	---	---	---	---	---	---
64	Corporation Facilities - Upgrade Lock Structures Maintenance Building	\$548,679	---	---	---	---	---	---
65	Both Locks - Install Lock Wall Guardrails	\$2,143	---	---	---	---	---	\$443
---	Miscellaneous Expenses	---	---	---	---	---	---	---
---	Engineering Design, Construction Inspection, Contracting Support, and Project Management (non-add)	---	\$300,000	\$300,000	\$606,769	\$306,000	---	---
---	Personnel-Related Expenses (non-add)	\$5,206,000	---	---	\$474,000	---	---	\$535,000
Total		\$119,815,416	\$17,535,000	\$17,535,000	\$17,587,028	\$16,317,000	\$16,317,000	\$16,340,203

# ARP Funding Summary (FYs 2009-2016)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2016 (Actual)	FY 2011			FY 2012		
			FY 2011 Congressional Request (02-07-10)	FY 2011 Internal Spending Plan (04-22-11)	FY 2011 Obligations (Actual) (09-30-11)	FY 2012 Congressional Request (02-14-11)	FY 2012 Internal Spending Plan (12-30-11)	FY 2012 Obligations (Actual) (09-30-12)
1	Both Locks - Replace Fendering on Approach Walls	\$438,566	\$10,000	---	---	---	---	---
2	Both Locks - Rehabilitate Downstream Miter Gates	\$6,761,839	\$4,250,000	\$4,250,000	\$3,539,935	\$4,380,000	\$2,700,000	\$8,384
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	\$35,422	---	---	---	---	\$200,000	---
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	\$9,170,537	\$4,500,000	\$4,500,000	\$3,965,005	---	\$180,000	\$639,889
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	\$169,312	---	---	\$23,781	\$258,000	\$25,000	\$28,335
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	\$8,783,585	\$3,466,000	\$3,066,000	---	---	---	---
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	\$2,189,879	\$900,000	\$300,000	\$65,591	\$405,000	\$300,000	\$302,468
8	Floating Navigational Aids - Replace	\$340,975	\$61,000	\$61,000	---	\$61,000	\$80,000	---
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	\$2,769,371	\$100,000	\$100,000	\$108,038	\$255,000	\$100,000	\$81,623
10	Both Locks - Upgrade Power Supply Infrastructure from Moses Saunders Dam to Both Locks and Adjacent Facilities	\$429,340	\$50,000	\$50,000	\$93,613	\$20,000	\$40,000	\$28,003
11	Fixed Navigational Aids - Rehabilitate	\$114,128	\$100,000	\$100,000	\$16,217	\$100,000	\$100,000	\$21,048
12	Corporation Equipment - Upgrade/Replace Floating Plant/Tugs	\$17,336,414	\$505,000	\$505,000	\$1,908,563	\$1,524,000	\$2,335,000	\$2,160,169
13	Corporation Facilities - Replace Roofs	\$564,907	\$130,000	\$130,000	\$3,348	\$230,000	\$40,000	\$89,024
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	\$2,836,939	\$750,000	---	\$85,481	---	---	---
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	\$1,586,976	\$650,000	\$650,000	\$99,459	---	---	\$1,523
16	Corporation Technologies - Upgrade GPS/AIS/TMS	\$190,470	\$50,000	\$50,000	-\$3,328	---	---	\$10,000
17	Navigation Channels - Dredge U.S. Sections to Maintain Design Grade and Dispose of Sediments	\$8,061,279	---	\$770,000	\$3,662,287	---	---	\$99,714
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	\$865,789	---	---	\$109,490	---	\$250,000	\$268,549
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	\$1,110,820	\$150,000	---	\$306,847	\$400,000	\$400,000	\$41,304
20	Both Locks - Upgrade Lock Status/Controls	\$487,158	\$75,000	\$75,000	\$89,507	---	---	\$37,548
21	Both Locks - Compressed Air Systems - Upgrade/Replace	\$815,948	---	---	\$3,381	---	\$15,000	\$986
22	Both Locks - Install Vessel Self Spotting Equipment	\$421,692	---	---	---	---	---	---
23	Both Locks - Install Hands-Free Mooring System	\$13,029,161	---	---	---	---	---	---
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	\$37,561	---	---	---	\$203,000	\$100,000	---
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	\$8,155	---	---	\$4,007	---	---	---
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	\$1,566,382	---	---	\$12,144	\$203,000	---	---
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	\$49,361	---	---	\$5,537	\$203,000	\$50,000	\$8,070
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	\$0	---	---	---	---	---	---
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	\$209,395	---	---	---	---	---	---
30	Eisenhower Lock - Ice Flushing System - Upgrade	\$0	---	---	---	---	---	---
31	Both Locks - Rehabilitate Upstream Miter Gates	\$5,042,354	---	---	\$347,662	---	---	\$14,981
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	\$2,501,713	\$253,000	\$253,000	\$346,600	\$254,000	\$250,000	---
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	\$308,827	---	---	---	\$152,000	\$100,000	---
34	Both Locks - Improve Ice Control	\$7,462	\$100,000	\$100,000	---	\$228,000	---	---
35	Vessel Mooring Cells - Rehabilitate and Extend	\$0	\$100,000	\$100,000	---	---	---	---
36	Eisenhower Lock - Diffusers - Replace	\$0	---	---	---	\$3,045,000	---	---
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	\$0	---	---	---	---	---	---
38	Both Locks - Upgrade/Replace Emergency Generators	\$2,141,095	---	---	---	\$508,000	\$100,000	---
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	\$256,988	---	---	---	\$203,000	\$200,000	\$189,763
40	Both Locks - Extend Guidewalls in Pool	\$0	---	---	---	---	---	---
41	Snell Lock - Install Ice Flushing System Technologies	\$13,545,252	---	\$400,000	\$272,000	\$2,000,000	\$6,705,000	\$11,477,293
42	Both Locks - Miter Gates - Structural Rehabilitation	\$6,639,642	---	---	---	\$761,000	\$750,000	\$210
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	\$5,449,932	---	---	\$133,364	\$1,632,000	---	\$1,207

# ARP Funding Summary (FYs 2009-2016)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2016 (Actual)	FY 2011			FY 2012		
			FY 2011 Congressional Request (02-07-10)	FY 2011 Internal Spending Plan (04-22-11)	FY 2011 Obligations (Actual) (09-30-11)	FY 2012 Congressional Request (02-14-11)	FY 2012 Internal Spending Plan (12-30-11)	FY 2012 Obligations (Actual) (09-30-12)
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	\$0	---	---	---	---	---	---
45	Flow Control Dikes - Rehabilitate	\$0	---	---	---	---	---	---
46	Both Locks - Guidewall Extensions - Rehabilitate	\$0	---	---	---	---	---	---
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	\$0	---	---	---	---	---	---
48	Both Locks - Stiffleg Derricks - Replace	\$0	---	---	---	---	---	---
49	Seaway International Bridge - Replace Deck	\$0	---	---	---	---	---	---
50	Snell Lock - Diffusers - Replace	\$0	---	---	---	---	---	---
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	\$424,732	\$100,000	\$100,000	\$21,097	\$50,000	\$300,000	\$352,347
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	\$1,111,537	---	---	\$13,042	---	---	---
53	Corporation Technologies - Financial Management System - Upgrade/Replace	\$0	---	---	---	---	---	---
54	Corporation Facilities - Administration Building - Replace Elevator	\$140,346	---	\$140,000	\$140,346	---	---	---
55	Corporation Facilities - Maintenance Building - Replace Fuel Tanks	\$191,700	---	---	\$189,350	---	---	\$2,350
56	Corporation Facilities - Duty Free Store Property - Security Upgrades	\$13,025	---	---	\$13,025	---	---	---
57	Corporation Technologies - Upgrade Network Security	\$184,221	---	---	\$158,536	---	\$250,000	\$16,998
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	\$146,836	---	---	\$47,511	---	\$50,000	\$57,036
59	Corporation Facilities - Communications Improvements	\$32,996	---	---	---	---	---	---
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	\$716,448	---	---	---	---	---	---
61	Both Locks - Replace Recess Covers on Lock Walls	\$13,732	---	---	---	---	---	---
62	Both Locks - Install/Upgrade Air Curtains	\$14,425	---	---	---	---	---	---
63	Both Locks - Install Electric Pleasure Craft Toll Collection Facility	\$0	---	---	---	---	---	---
64	Corporation Facilities - Upgrade Lock Structures Maintenance Building	\$0	---	---	---	---	---	---
65	Both Locks - Install Lock Wall Guardrails	\$548,679	---	---	---	---	---	---
---	Miscellaneous Expenses	\$2,143	---	---	\$1,700	---	---	---
---	Engineering Design, Construction Inspection, Contracting Support, and Project Management (non-add)	---	---	---	---	---	---	---
---	Personnel-Related Expenses (non-add)	\$5,206,000	---	---	\$783,000	---	---	\$672,000
Total		\$119,815,416	\$15,700,000	\$15,700,000	\$15,784,816	\$17,075,000	\$15,600,000	\$15,838,803

# ARP Funding Summary (FYs 2009-2016)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2016 (Actual)	FY 2013				FY 2014			
			FY 2013 Congressional Request (02-13-12)	FY 2013 Internal Spending Plan (04-01-13)	FY 2013 Obligations (Actual) (09-30-13)	FY 2013 Congressional Request (04-08-13)	FY 2014 Internal Spending Plan (03-01-14)	FY 2014 Obligations (Actual) (09-30-14)		
1	Both Locks - Replace Fendering on Approach Walls	\$438,566	---	---	---	---	---	---	\$188,725	
2	Both Locks - Rehabilitate Downstream Miter Gates	\$6,761,839	\$230,000	\$3,032,500	\$3,009,854	---	---	\$204,000	\$203,666	
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	\$35,422	\$100,000	\$100,000	---	---	---	---	---	
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	\$9,170,537	---	\$207,000	\$203,578	---	---	---	---	
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	\$169,312	\$200,000	\$150,000	\$27,906	---	\$20,000	---	\$34,254	
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	\$8,783,585	---	---	---	---	---	---	---	
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	\$2,189,879	\$420,000	\$350,000	\$162	---	---	\$390,000	\$1,370,028	
8	Floating Navigational Aids - Replace	\$340,975	\$65,000	\$30,000	\$31,434	\$65,000	\$48,000	\$68,149	---	
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	\$2,769,371	\$260,000	\$492,000	\$137,393	\$260,000	\$223,000	\$227,151	---	
10	Both Locks - Upgrade Power Supply Infrastructure from Moses Saunders Dam to Both Locks and Adjacent Facilities	\$429,340	\$20,000	\$20,000	\$17,099	\$20,000	\$40,000	\$38,320	---	
11	Fixed Navigational Aids - Rehabilitate	\$114,128	\$200,000	\$35,000	\$29,210	\$200,000	\$15,000	\$14,199	---	
12	Corporation Equipment - Upgrade/Replace Floating Plant/Tugs	\$17,336,414	\$400,000	\$575,000	\$860,413	---	\$587,000	\$572,622	---	
13	Corporation Facilities - Replace Roofs	\$564,907	\$300,000	\$555,000	\$17,520	\$500,000	---	---	---	
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	\$2,836,939	\$900,000	\$323,600	---	\$1,300,000	---	---	---	
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	\$1,586,976	\$750,000	---	---	---	\$1,411,000	\$1,143,224	---	
16	Corporation Technologies - Upgrade GPS/AIS/TMS	\$190,470	\$100,000	\$6,500	\$6,350	---	---	---	---	
17	Navigation Channels - Dredge U.S. Sections to Maintain Design Grade and Dispose of Sediments	\$8,061,279	---	\$50,000	\$100	\$5,150,000	---	\$100	\$100	
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	\$865,789	---	---	---	---	---	---	---	
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	\$1,110,820	---	\$1,500	\$1,465	---	---	---	\$420	
20	Both Locks - Upgrade Lock Status/Controls	\$487,158	---	\$85,000	\$76,722	---	\$30,000	\$32,570	---	
21	Both Locks - Compressed Air Systems - Upgrade/Replace	\$815,948	---	\$15,000	---	---	---	---	---	
22	Both Locks - Install Vessel Self Spotting Equipment	\$421,692	\$500,000	\$400,000	---	\$300,000	\$500,000	\$485,201	---	
23	Both Locks - Install Hands-Free Mooring System	\$13,029,161	---	---	---	---	\$2,975,000	\$686,074	---	
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	\$37,561	---	\$100,000	---	---	---	---	---	
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	\$8,155	---	---	---	---	---	---	---	
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	\$1,566,382	\$750,000	\$450,000	\$1,115,266	\$200,000	\$15,000	\$18,572	---	
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	\$49,361	---	---	\$167	\$200,000	---	---	---	
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	\$0	---	---	---	---	---	---	---	
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	\$209,395	\$2,000,000	\$1,700,000	---	\$1,500,000	---	---	---	
30	Eisenhower Lock - Ice Flushing System - Upgrade	\$0	---	---	---	---	---	---	---	
31	Both Locks - Rehabilitate Upstream Miter Gates	\$5,042,354	---	---	-\$750	---	---	---	---	
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	\$2,501,713	\$300,000	\$1,000,000	\$2,099,934	---	\$35,000	\$42,445	---	
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	\$308,827	\$160,000	\$150,000	\$6,938	\$150,000	\$300,000	\$304,737	---	
34	Both Locks - Improve Ice Control	\$7,462	\$230,000	---	---	\$230,000	---	---	---	
35	Vessel Mooring Cells - Rehabilitate and Extend	\$0	\$500,000	\$200,000	---	\$1,020,000	---	---	---	
36	Eisenhower Lock - Diffusers - Replace	\$0	---	---	---	---	---	---	---	
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	\$0	---	---	---	---	---	---	---	
38	Both Locks - Upgrade/Replace Emergency Generators	\$2,141,095	\$500,000	\$500,000	\$1,764,008	---	\$343,000	\$344,313	---	
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	\$256,988	\$200,000	\$5,000	\$25,721	---	\$24,000	\$23,668	---	
40	Both Locks - Extend Guidewalls in Pool	\$0	---	---	---	---	---	---	---	
41	Snell Lock - Install Ice Flushing System Technologies	\$13,545,252	\$3,000,000	\$1,100,000	\$1,577,272	---	\$95,000	\$90,045	---	
42	Both Locks - Miter Gates - Structural Rehabilitation	\$6,639,642	\$765,000	\$2,000,000	\$2,898,519	\$1,295,000	\$3,715,000	\$3,740,513	---	
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	\$5,449,932	\$2,600,000	---	\$505	\$1,750,000	\$2,360,000	\$3,740,933	---	

# ARP Funding Summary (FYs 2009-2016)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2016 (Actual)	FY 2013				FY 2014			
			FY 2013 Congressional Request (02-13-12)	FY 2013 Internal Spending Plan (04-01-13)	FY 2013 Obligations (Actual) (09-30-13)	FY 2013 Congressional Request (04-08-13)	FY 2014 Internal Spending Plan (03-01-14)	FY 2014 Obligations (Actual) (09-30-14)		
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	\$0	---	---	---	\$410,000	---	---	---	---
45	Flow Control Dikes - Rehabilitate	\$0	---	---	---	---	---	---	---	---
46	Both Locks - Guldewall Extensions - Rehabilitate	\$0	---	---	---	---	---	---	---	---
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	\$0	---	---	---	---	---	---	---	---
48	Both Locks - Stiffleg Derricks - Replace	\$0	---	---	---	---	---	---	---	---
49	Seaway International Bridge - Replace Deck	\$0	---	---	---	---	---	---	---	---
50	Snell Lock - Diffusers - Replace	\$0	---	---	---	---	---	---	---	---
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	\$424,732	\$500,000	\$25,000	\$20,143	\$100,000	\$5,000	\$5,985		
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	\$1,111,537	\$300,000	\$280,000	\$298,391	\$500,000	\$795,000	\$794,473		
53	Corporation Technologies - Financial Management System - Upgrade/Replace	\$0	---	---	---	---	---	---	---	---
54	Corporation Facilities - Administration Building - Replace Elevator	\$140,346	---	---	---	---	---	---	---	---
55	Corporation Facilities - Maintenance Building - Replace Fuel Tanks	\$191,700	---	---	---	---	---	---	---	---
56	Corporation Facilities - Duty Free Store Property - Security Upgrades	\$13,025	---	---	---	---	---	---	---	---
57	Corporation Technologies - Upgrade Network Security	\$184,221	---	\$8,500	\$8,687	---	---	---	---	---
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	\$146,836	\$200,000	\$53,400	\$8,180	\$100,000	\$30,000	\$22,140		
59	Corporation Facilities - Communications Improvements	\$32,986	---	---	---	---	---	---	---	---
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	\$716,448	---	---	---	\$500,000	---	---	---	---
61	Both Locks - Replace Recess Covers on Lock Walls	\$13,732	---	---	---	\$100,000	---	---	---	---
62	Both Locks - Install/Upgrade Air Curtains	\$14,425	---	---	---	---	---	---	---	---
63	Both Locks - Install Electric Pleasure Craft Toll Collection Facility	\$0	---	---	---	---	---	---	---	---
64	Corporation Facilities - Upgrade Lock Structures Maintenance Building	\$548,679	---	---	---	---	---	---	---	---
65	Both Locks - Install Lock Wall Guardrails	\$2,143	---	---	---	---	---	---	---	---
---	Miscellaneous Expenses	---	---	---	---	---	---	---	---	---
---	Engineering Design, Construction Inspection, Contracting Support, and Project Management (non-add)	---	---	---	---	---	---	---	---	---
---	Personnel-Related Expenses (non-add)	\$5,206,000	---	---	\$674,000	---	---	---	---	---
Total		\$119,815,416	\$16,000,000	\$14,000,000	\$14,242,887	\$15,850,000	\$14,150,000	\$14,189,527		

# ARP Funding Summary (FYs 2009-2016)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2016 (Actual)	FY 2015				FY 2016			
			FY 2015 Congressional Request (03-04-14)	FY 2015 Internal Spending Plan (01-05-15)	FY 2015 Obligations (Actual) (09-30-15)	FY 2016 Congressional Request (02-xx-15)	FY 2016 Internal Spending Plan (12-xx-15)	FY 2016 Obligations (Actual) (09-30-16)		
1	Both Locks - Replace Fendering on Approach Walls	\$438,566	\$250,000	---	\$140	---	---	---		
2	Both Locks - Rehabilitate Downstream Miter Gates	\$6,761,839	---	---	---	---	---	---		
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	\$35,422	---	---	---	---	---	---		
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	\$9,170,537	---	---	---	---	---	---		
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	\$169,312	\$25,000	---	\$1,700	---	---	---		
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	\$8,783,585	---	---	---	---	---	---		
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	\$2,189,879	---	\$100,000	\$102,091	---	---	\$22,641		
8	Floating Navigational Aids - Replace	\$340,975	\$65,000	\$125,000	\$125,562	---	---	---		
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	\$2,769,371	\$200,000	\$125,000	\$141,124	---	---	---		
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	\$429,340	\$20,000	---	---	\$50,000	\$50,000	\$1,442		
11	Fixed Navigational Aids - Rehabilitate	\$114,128	\$100,000	\$25,000	\$22,456	\$50,000	\$50,000	---		
12	Corporation Equipment - Upgrade/Replace Floating Plant/Tugs	\$17,336,414	\$750,000	\$330,000	\$313,398	\$10,000,000	\$10,000,000	\$9,214,579		
13	Corporation Facilities - Replace Roofs	\$664,907	\$500,000	\$400,000	\$283,426	---	---	\$27,340		
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	\$2,836,939	---	---	---	---	---	---		
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	\$1,586,976	---	\$35,000	\$33,583	---	---	\$10,747		
16	Corporation Technologies - Upgrade GPS/AIS/TMS	\$190,470	\$100,000	---	---	---	---	---		
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	\$8,061,279	---	\$25,000	\$19,542	---	---	---		
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	\$865,789	---	---	---	---	---	---		
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	\$1,110,820	\$450,000	\$10,000	\$7,384	---	---	---		
20	Both Locks - Upgrade Lock Status/Controls	\$487,158	\$50,000	\$40,000	\$37,698	---	---	\$64,749		
21	Both Locks - Compressed Air Systems - Upgrade/Replace	\$815,948	\$100,000	\$10,000	\$4,154	---	---	---		
22	Both Locks - Install Vessel Self Spotting Equipment	\$421,692	---	---	\$1,491	---	---	---		
23	Both Locks - Install Hands-Free Mooring System	\$13,029,161	\$8,000,000	\$10,800,000	\$10,756,839	\$8,000,000	---	\$1,586,248		
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	\$37,561	\$100,000	---	---	---	---	---		
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	\$8,155	---	---	---	---	---	---		
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	\$1,566,362	---	---	\$2,380	---	---	---		
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	\$49,361	---	---	\$1,811	---	---	---		
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	\$0	---	---	---	---	---	---		
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	\$209,395	---	---	---	---	---	---		
30	Eisenhower Lock - Ice Flushing System - Upgrade	\$0	---	---	---	---	---	---		
31	Both Locks - Rehabilitate Upstream Miter Gates	\$5,042,354	---	---	---	---	---	---		
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	\$2,501,713	---	---	---	---	---	---		
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	\$308,827	---	---	\$152	---	---	---		
34	Both Locks - Improve Ice Control	\$7,462	---	---	---	---	---	---		
35	Vessel Mooring Cells - Rehabilitate and Extend	\$0	---	---	---	---	---	---		
36	Eisenhower Lock - Diffusers - Replace	\$0	---	---	---	---	---	---		
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	\$0	---	---	---	---	---	---		
38	Both Locks - Upgrade/Replace Emergency Generators	\$2,141,095	---	\$30,000	\$32,774	---	---	---		
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	\$256,988	---	\$20,000	\$17,936	---	---	---		
40	Both Locks - Extend Guidewalls in Pool	\$0	---	---	---	---	---	---		
41	Snell Lock - Install Ice Flushing System Technologies	\$13,545,252	---	\$130,000	\$128,144	---	---	\$498		
42	Both Locks - Miter Gates - Structural Rehabilitation	\$6,639,642	\$800,000	---	---	---	---	---		
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	\$5,449,932	\$1,800,000	\$1,500,000	\$1,568,096	---	---	\$5,827		



# ARP Funding Summary (FYs 2009-2016)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2016 (Actual)	FY 2015				FY 2016			
			FY 2015 Congressional Request (03-04-14)	FY 2015 Internal Spending Plan (01-05-15)	FY 2015 Obligations (Actual) (09-30-15)	FY 2016 Congressional Request (02-xx-15)	FY 2016 Internal Spending Plan (12-xx-15)	FY 2016 Obligations (Actual) (09-30-16)		
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	\$0	\$425,000	---	---	---	---	---		
45	Flow Control Dikes - Rehabilitate	\$0	---	---	---	---	---	---		
46	Both Locks - Guidewall Extensions - Rehabilitate	\$0	---	---	---	---	---	---		
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	\$0	---	---	---	---	---	---		
48	Both Locks - Stiffleg Derricks - Replace	\$0	---	---	---	---	---	---		
49	Seaway International Bridge - Replace Deck	\$0	---	---	---	---	---	---		
50	Snell Lock - Diffusers - Replace	\$0	---	---	---	---	---	---		
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	\$424,732	---	---	\$977	\$50,000	\$50,000	---		
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	\$1,111,537	---	\$10,000	\$5,631	---	---	---		
53	Corporation Technologies - Financial Management System - Upgrade/Replace	\$0	---	---	---	---	---	---		
54	Corporation Facilities - Administration Building - Replace Elevator	\$140,346	---	---	---	---	---	---		
55	Corporation Facilities - Maintenance Building - Replace Fuel Tanks	\$191,700	---	---	---	---	---	---		
56	Corporation Facilities - Duty Free Store Property - Security Upgrades	\$13,025	---	---	---	---	---	---		
57	Corporation Technologies - Upgrade Network Security	\$184,221	\$50,000	---	---	---	---	---		
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	\$146,836	\$50,000	\$10,000	\$8,405	---	---	\$3,564		
59	Corporation Facilities - Communications Improvements	\$32,996	\$50,000	\$40,000	\$29,000	---	---	\$3,996		
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	\$716,448	\$250,000	\$725,000	\$716,052	---	---	\$396		
61	Both Locks - Replace Recess Covers on Lock Walls	\$13,732	\$165,000	\$25,000	\$2,200	---	---	\$11,532		
62	Both Locks - Install/Upgrade Air Curtains	\$14,425	---	---	---	---	---	\$14,425		
63	Both Locks - Install Electric Pleasure Craft Toll Collection Facility	\$0	---	---	---	---	---	---		
64	Corporation Facilities - Upgrade Lock Structures Maintenance Building	\$0	---	---	---	---	---	---		
65	Both Locks - Install Lock Wall Guardrails	\$548,679	---	\$550,000	\$548,679	---	---	---		
---	Miscellaneous Expenses	\$2,143	---	---	---	---	---	---		
---	Engineering Design, Construction Inspection, Contracting Support, and Project Management (non-add)	---	---	---	---	---	---	---		
---	Personnel-Related Expenses (non-add)	\$5,206,000	---	---	\$620,000	---	---	\$478,000		
Total		\$119,815,416	\$14,300,000	\$15,065,000	\$14,912,825	\$18,150,000	\$10,150,000	\$10,921,470		