



**Saint Lawrence Seaway Development Corporation**

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



**Fiscal Year 2015**

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## **Background and Summary**

As directed in the Senate Report (S. Rept. 114-75) of H.R. 2577 (Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2016), 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 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 2015, the SLSDC obligated funding and awarded contracts for 29 ARP projects totaling \$14.9 million. Major ARP activities funded in FY 2015 included: hands-free mooring system technology at Eisenhower Lock (\$10.8 million); miter gate machinery upgrades (\$1.6 million); lock crossover and recess improvements (\$716,000); and lock wall safety guardrail installation at both U.S. locks (\$549,000).

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 and the overall enacted ARP budget level is met. For FY 2015, the SLSDC had requested \$14.3 million for ARP projects so the internal spending plan included necessary adjustments in order to meet the enacted funding level. 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.

The SLSDC obligated \$109 million on 48 separate projects during the ARP's first seven years (FYs 2009-2015) (*see page 23*). 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 2015, the SLSDC expended \$620,000 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 \$4.7 million.

The SLSDC's ARP closely coordinates with infrastructure renewal work completed or planned by the Canadian 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 \$350 million over the past five years and have projected asset renewal expenses of nearly \$500 million over the next five years. 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 has been 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 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 2015, 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 for a base year with options for four additional years. Three firms are anticipated to receive awards in FY 2016. 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<sup>®</sup>, 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 seven years (FYs 2009-2015).

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 2015 ARP project updates; (4) ARP obligations by project for FYs 2009-2015; (5) ARP funding summary for FYs 2009-2015; and (6) the latest five-year estimates for ARP projects in FYs 2017-2021.

## **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 seven 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>



## **ARP Capital Investment Plan Summary (FYs 2017-2021)**

Each year since the start of the ARP, the SLSDC performs an annual update of the projects and estimated funding for the following five-year period. This update is important to ensure that the most accurate funding estimates are presented and that priority projects are performed in a timely manner. As highlighted in the *U.S. St. Lawrence Seaway ARP Capital Investment Plan (CIP), 2017-2021*<sup>4</sup>, which was included in the SLSDC's FY 2017 President's Budget request, the SLSDC provided estimates for executing the next five years of the ARP (see pages 32-33).

For the FY 2017-2021 period, the Seaway ARP/CIP includes 60 separate ARP projects and equipment estimated at \$98.3 million with total funding for each year of the plan constrained to funding targets for those years as approved by the U.S. Secretary of Transportation and subject to annual appropriations. It is important to note that dollar amounts for ARP projects are "project feasibility" estimates that can vary by an industry-recognized standard of 20-30 percent. Project estimates and schedules may fluctuate at various points in the lifespan of the ARP and will be revised as needed and on a continuing basis throughout the length of the ARP.

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

<sup>4</sup> [http://www.greatlakes-seaway.com/en/pdf/SLSDC\\_Asset\\_Renewal\\_Plan2017.pdf](http://www.greatlakes-seaway.com/en/pdf/SLSDC_Asset_Renewal_Plan2017.pdf)

## **FY 2015 ARP Project Updates**

The following information provides an update on the 21 ARP projects that were funded in FY 2015 with obligations in excess of \$2,500<sup>5</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>6</sup> Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2015 Request Estimate (March 2014): \$25,000

FY 2015 Internal Spending Plan (January 2015): \$0

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<sup>5</sup> There were eight (8) ARP projects with FY 2015 obligations below \$2,500 that are not reported in the project update section: Project No. 1: Both Locks – Replace Fendering (\$140); Project No. 5: Both Locks – Rehabilitate and Insulate Winter Maintenance Lock Covers (\$1,700); Project No. 22: Both Locks – Install Vessel Self Spotting Equipment (\$1,491); Project No. 26: Corporation Facilities: Upgrade Storage (\$2,380); Project No. 27: Corporation Facilities: Replace Windows and Doors and Repair Building Facades (\$1,811); Project No. 33: Both Locks – Upgrade Drainage Infrastructure in Galleries and Recesses (\$152); Project No. 51: Corporation Facilities – Upgrade Physical Security to Meet HSPD-12 Requirements (\$977); and Project No. 61: Both Locks – Replace Recess Covers on Lock Walls (\$2,200).

<sup>6</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.



FY 2015 Obligations:<sup>7</sup> \$102,091

Total Obligations (FYs 2009-2015): \$2,167,238 (FYs 2010-2015)

Project Update (as of September 30, 2015): 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. (small business; sealed bidding; award based on lowest price), 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.



*SLSDC crews lift one of the new single-skin culvert valves for installation.*

In FY 2015, the SLSDC issued a contract modification to Custom Fabrications and Coatings, Inc., for \$11,407 for greaseless bushings to be included in the fabrication. In addition, the SLSDC awarded a contract in December 2014 to St. Louis Testing Laboratories, Inc., St. Louis, Mo. (small business; simplified acquisition; award based on trade-off procedures) for valve fabrication inspection and testing services. The new valves will be installed at the two U.S. locks during future winter maintenance periods, starting in FY 2017.

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## **(2) Project No. 8: Floating Navigation Aids – Replace**

General Description: 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. The Corporation is responsible for 101 buoys and 59 winter markers (one light per unit) along a 120-mile portion of the St. Lawrence Seaway.

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

Mission Objective: Waterway Management

FY 2015 Request Estimate (March 2014): \$65,000

FY 2015 Internal Spending Plan (January 2015): \$125,000

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<sup>7</sup> Contracts and purchases detailed in the update section for each ARP project may not add up to the total obligations listed for the project due to miscellaneous expenses across the ARP for small purchase orders, travel, supplies, etc., that are not detailed in this report.



FY 2015 Obligations: \$125,562

Total Obligations (FYs 2009-2015): \$340,975 (FYs 2009-2010, 2013-2015)

Project Update (as of September 30, 2015): In FY 2015, the SLSDC awarded three small business contracts for the purchase of floating navigation aids and associated lanterns to include both regular winter markers as well as new all-season buoys to be tested in the St. Lawrence River. Following testing by the SLSDC over the next several years, the all-season buoys could become a long-term solution for reducing costs associated with the winter retrieval and spring placement by SLSDC personnel. The U.S. and Canadian Coast Guards are also testing similar all-season buoys at various spots on the Great Lakes connecting waterways and lower St. Lawrence River. The small business contracts were awarded to Tideland Signal Corp., Houston, Texas, for \$34,460 (sole source), UMS Metal Fabricators, Inc., Mobile, Ala., for \$62,751 (sole source USCG contract), and Sealite, Inc., Tilton, N.H., for \$13,205 (simplified acquisition). In addition, a large business contract was awarded to Carmanah Technologies Corporation, Victoria, British Columbia, for \$6,248 (simplified acquisition).

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(3) **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 2015 Request Estimate (March 2014): \$200,000

FY 2015 Internal Spending Plan (January 2015): \$125,000

FY 2015 Obligations: \$141,124

Total Obligations (FYs 2009-2015): \$2,750,885 (FYs 2009-2015)

Project Update (as of September 30, 2015): In FY 2015, the SLSDC awarded eight contracts for various vehicles and equipment:

- Modification to FY 2014 contract to rebuild the SLSDC's grader to include additional work (\$5,859) – Nortrax, Inc., Gouverneur, N.Y. (large business).
  - Purchase of 18,000-pound capacity twin post vehicle lift for servicing SLSDC vehicles and trucks (\$16,339) – Mohawk Resources Ltd., Amsterdam, N.Y. (small business; GSA e-Buy).
  - Purchase of skid-steer loader with folks, snow blower, and hammer attachments (\$53,852) – CHN Industrial America LLC, Racine, Wis. (large business; GSA e-Buy).
  - Purchase of hot water/steam pressure washer for general facility/property cleaning and for removing ice from the lock areas (\$9,488) – Daimler Industries, Inc., Woburn, Mass. (small business; simplified acquisition).
  - Rehabilitation of a bucket truck (\$8,459) – Denney's Welding and Machine, Massena, N.Y. (small business; simplified acquisition).
  - Purchase of a Ford Focus electric vehicle for use by SLSDC engineering and maintenance staff (\$26,547) – GSA Heartland Finance Center, Kansas City, Mo. (GSA AutoChoice).
  - Purchase of a Ford Transit mid-size work van for use by SLSDC electricians (\$20,580) – GSA Heartland Finance Center, Kansas City, Mo. (GSA AutoChoice).
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**(4) Project No. 11: Fixed Navigational Aids – Rehabilitate**

Description: This project is for rehabilitating the 92 fixed navigational aids (one light per unit) in the St. Lawrence Seaway and for upgrading the navigation lights on these structures. Many of the structures are more than 50 years old and are in need of comprehensive repairs. Many of these structures have concrete bases which are partially underwater and have experienced varying degrees of damage from water, ice, and freeze-thaw cycles. Failure of a fixed aid would likely make it necessary to replace it which would cost significantly more than repairing the existing structure.

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

Mission Objective: Waterway Management

FY 2015 Request Estimate (March 2014): \$100,000

FY 2015 Internal Spending Plan (January 2015): \$25,000

FY 2015 Obligations: \$22,456

Total Obligations (FYs 2009-2015): \$114,128 (FYs 2010-2015)

Project Update (as of September 30, 2015): In FY 2015, the SLSDC awarded three small business contracts for the purchase of LED lanterns, bullet lights, and white halogen lights totaling \$22,456. The contracts were awarded to Sealite, Inc., Tilton, N.H. (small business; GSA e-Buy), Tideland Signal Corp., Houston, Texas (small business; simplified acquisition); and CR Control Systems, Lebanon, N.H. (small business; simplified acquisition).

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**(5) 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

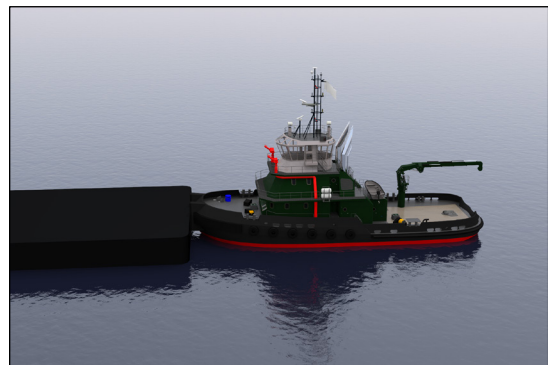
FY 2015 Request Estimate (March 2014): \$750,000

FY 2015 Internal Spending Plan (January 2015): \$330,000

FY 2015 Obligations: \$313,398

Total Obligations (FYs 2009-2015):  
\$8,121,835 (FYs 2009-2015)

Project Update (as of September 30, 2015):  
The SLSDC awarded three contract modifications to Robert Allan, Ltd., Vancouver, British Columbia for \$313,398. Robert Allan, Ltd., was awarded a contract in FY 2012 to provide a naval architect design for a new SLSDC tugboat to replace the *Robinson Bay*. The modifications in FY 2015 were to award engineering plan approval services to the American Bureau of Shipping (ABS) for \$181,401; support services during the solicitation phase of contracting for a new tugboat for \$100,000; and unanticipated expenses incurred by the



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

contractor for \$31,775. In FY 2015, Robert Allan, Ltd., completed the design, drawings, and specifications for the new tugboat and the design was reviewed and approved by ABS.

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**(6) 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.

Type of Project: Capital Project

Mission Objective: Facility-Equipment Upgrade and Maintenance

FY 2015 Request Estimate (March 2014): \$500,000

FY 2015 Internal Spending Plan (January 2015): \$400,000

FY 2015 Obligations: \$283,426

Total Obligations (FYs 2009-2015): \$537,567 (FYs 2009, 2011-2013, 2015)

Project Update (as of September 30, 2015): In September 2015, the SLSDC awarded a contract to Sierra Deltal Contracting, LLC, Sackets Harbor, N.Y. (service-disabled, veteran-owned business; set aside) for \$283,426 to remove existing and install new EPDM roofing systems at the SLSDC's maintenance base, marine services, and pump buildings. This work is expected to be completed in FY 2016.

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**(7) 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 wingwalls 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



*Contractors work on new concrete in the northbound lane inside the Eisenhower Lock highway tunnel.*

Mission Objective: Tunnel and Bridge Maintenance

FY 2015 Request Estimate (March 2014): \$0

FY 2015 Internal Spending Plan (January 2015):  
\$35,000

FY 2015 Obligations: \$33,583

Total Obligations (FYs 2009-2015): \$1,576,229 (FYs 2009-2012, 2014-2015)

Project Update (as of September 30, 2015): In FY 2015, the SLSDC issued six contract modifications totaling \$33,583 to Nichols, Long, and Moore, Lancaster, N.Y. (service-disabled, veteran-owned business; set-aside) as part of the Eisenhower Lock highway tunnel paving and

drainage improvements. These modifications were primarily related to concrete quality, amount, sealant, and reinforcement.

During FY 2015, SLSDC contractors completed the highway tunnel light-emitting diode (LED) lighting and roadway improvement projects awarding in FY 2014.

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**(8) Project No. 17: Navigation Channels – Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments**

General Description: This project is for dredging of the U.S. Seaway navigation channel to remove sediment and to maintain the design grade for the channel bottom.

Maintenance dredging areas include the intermediate pool (between Eisenhower and Snell Locks), the international tangent section to the east of Snell Lock, and several other sections of U.S. waters west of Eisenhower Lock.

Type of Project: Non-Capital Maintenance Project

Mission Objective: Waterway Management

FY 2015 Request Estimate (March 2014): \$0

FY 2015 Internal Spending Plan (January 2015): \$25,000

FY 2015 Obligations: \$19,542

Total Obligations (FYs 2009-2015): \$8,061,279 (FYs 2009, 2011-2015)

Project Update (as of September 30, 2015): In FY 2015, the SLSDC awarded a contract to SJB Services, Inc., Hamburg, N.Y. (small business; simplified acquisition) for \$14,840 to perform a geotechnical investigation of the river bottom in the Galop Island and Crossover Island areas of the St. Lawrence River. The results of this investigation will be used to determine future maintenance dredging requirements and to understand the composition of the high spots in order to determine what methods are available to having them removed.

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**(9) Project No. 19: Corporation Facilities – Upgrade 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. The majority of this equipment is more than 50 years old.

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

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

FY 2015 Request Estimate (March 2014): \$450,000

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

FY 2015 Obligations: \$7,384

Total Obligations (FYs 2009-2015): \$1,110,820 (FYs 2010-2015)

Project Update (as of September 30, 2015): As part of the SLSDC's on-going efforts to upgrade the electrical distribution equipment at its operational facilities in Massena, N.Y., the SLSDC purchased a UPS backup power source for the Maintenance Building for \$7,384 from Computer Mission, Oakton, Va. (small business; GSA Advantage).

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**(10) 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 2015 Request Estimate (March 2014): \$50,000

FY 2015 Internal Spending Plan (January 2015): \$40,000

FY 2015 Obligations: \$37,698

Total Obligations (FYs 2009-2015): \$422,409 (FYs 2009-2015)

Project Update (as of September 30, 2015): In FY 2015, the SLSDC purchased electronic equipment, cables, and hardware enclosures to upgrade the vertical lift gate and other lock operating equipment controls. The SLSDC made multiple small purchases of materials and equipment from different vendors. The equipment was installed by SLSDC employees during FY 2015.

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**(11) Project No. 21: Both Locks – Compressed Air Systems – Upgrade/Replace**

General Description: This project is for replacing the compressors and corroded piping at both Eisenhower and Snell Locks which provides compressed air for various systems at the locks, for maintenance work and for air curtains and bubblers utilized to control ice in and around the locks during the opening and closing of the navigation seasons. The ability of the existing compressed air systems to provide the required volumes and/or pressures reliably is becoming a challenge as the equipment ages and as the requirements for compressed air increase.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2015 Request Estimate (March 2014): \$100,000

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

FY 2015 Obligations: \$4,154

Total Obligations (FYs 2009-2015): \$815,948 (FYs 2009-2012, 2015)

Project Update (as of September 30, 2015): In FY 2015, the SLSDC procured the supplies necessary to commence work on a multi-year project to replace severely corroded airlines at both locks. The work will be completed by SLSDC maintenance personnel. These airlines are crucial to the efficient operation of the air curtains and bubblers used to control ice in and around the locks.

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**(12) 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. This new technology, once fully implemented, will reduce the need for SLSDC employees to tie the vessels up while in the lock, thereby reducing the risk of injuries resulting from handling the wire ropes. In addition, vessel operating costs would be reduced to reflect smaller crew sizes and less equipment to meet current transit requirements. The Canadian SLSMC initiated this project and began testing the new technology at their Welland Canal locks in 2007. On-going testing has 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. Both the SLSMC and Transport Canada are fully committed to installing and commissioning this new technology in the Canadian Seaway locks by 2018.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2015 Request Estimate (March 2014): \$8,000,000

FY 2015 Internal Spending Plan (January 2015): \$10,800,000

FY 2015 Obligations: \$10,756,839

Total Obligations (FYs 2009-2015): \$11,442,913 (FYs 2014-2015)

Project Update (as of September 30, 2015): In FY 2015, the SLSDC continued its work to procure, install, and commission the Seaway hands-free mooring system at the two U.S. locks. For the past decade, the SLSDC has worked closely with the Canadian SLSMC and its contractors on this project that is expected to be fully installed at the U.S. and Canadian Seaway locks by 2018.

During the year, the SLSDC awarded two large contracts, one small contract, and two contract modifications:

- A two-phased contract to Cavotec Canada, Inc., Markham, Ontario, (large business; sole source) to (a) purchase the rails for the MoorMaster hands-free mooring system (\$278,300) and (b) furnish and commission the system at both U.S. Seaway locks (\$4.8 million). Cavotec is the world's only manufacturer of this technology and the SLSDC and SLSMC jointly negotiated on the system equipment to reduce the per-lock costs.
- A contract to Kubricky Construction Corp., Gansevoort, N.Y., (large business; sealed bidding; award based on lowest price) to construct three hands-free mooring slots in the lock wall at Eisenhower Lock and install the system's rails. (\$5.3 million).
- A contract to Quality Control Services, Cleveland, Ohio, (small business; sole source 8(a) contract) for \$290,000 to perform inspection services for the construction work (slots cut and rail installed) during the 2016 winter work period.
- Two contract modifications to Bergmann Associates, Rochester, N.Y., totaling \$50,000 for architecture/engineering (A/E) services to support the structural design of the hands-free mooring system at both locks. The initial contract was awarded in FY 2014 for \$361,000. The modifications issued in FY 2015 were for additional design work and for engineering services during the construction phases.

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**(13) Project No. 38: Both Locks – Upgrade/Replace Emergency Generators**

General Description: This project is for replacing the emergency generators at both Eisenhower and Snell Locks. The generators at the locks are over 25 years old and cannot carry the total load required to operate the locks.

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

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2015 Request Estimate (March 2014): \$0

FY 2015 Internal Spending Plan (January 2015): \$30,000

FY 2015 Obligations: \$32,774

Total Obligations (FYs 2009-2015):  
\$2,141,095 (FYs 2013-2015)



Crews place new emergency generators at the U.S. Snell Lock.

Project Update (as of September 30, 2015): The SLSDC issued three contract modifications in FY 2015 for additional work to Collins-Hammond Electrical Contractors, Ogdensburg, N.Y., as part of its work to upgrade the emergency generators and transformers at both locks. The base contract was awarded in FY 2013. This multi-year project was substantially completed in FY 2015.

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**(14) Project No. 39: Both Locks – Dewatering Pumps – Upgrade Outdated Equipment**

General Description: This project replaces the pumps used for dewatering both Eisenhower and Snell Locks when maintenance of their underwater components is required. These pumps are over 50 years old and in need of rehabilitation.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2015 Request Estimate (March 2014): \$0

FY 2015 Internal Spending Plan (January 2015): \$20,000

FY 2015 Obligations: \$17,936

Total Obligations (FYs 2009-2015): \$256,988 (FYs 2012-2015)

Project Update (as of September 30, 2015): As part of its on-going efforts to rebuild and/or replace the dewatering equipment at both U.S. Seaway locks, the SLSDC awarded a contract to Siewart Equipment, Orchard Park, N.Y. (small business; simplified acquisition; award based on lowest price) for \$17,936 to fabricate two tilting disc check valves to replace damaged dewatering pump system valves.

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**(15) Project No. 41: Snell Lock – Install Ice Flushing System Technologies**

General Description: This multi-year project will result in the installation of an ice flushing system at Snell Lock somewhat similar to the one already in operation at Eisenhower Lock. The project is critical to the safe and efficient operation of Snell Lock during the waterway's opening and closing periods when ice is typically present. Due to the very limited space between the vessel and lock walls and miter gates, each lock must be flushed free of ice before a vessel can be allowed to enter. Currently, ice is flushed from the Snell Lock chamber by utilizing lock-filling valves, exposing them to very high water flow/velocity for long periods of time. This causes the valves to vibrate and, in some instances, incur damage.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2015 Request Estimate (March 2014): \$0

FY 2015 Internal Spending Plan (January 2015): \$130,000

FY 2015 Obligations: \$128,144

Total Obligations (FYs 2009-2015): \$13,544,754 (FYs 2011-2015)

Project Update (as of September 30, 2015): As reported in the FY 2013 ARP Annual Report to Congress, the SLSDC continues to experience problems with the ice flushing system installed at Snell Lock in the winter of 2013. During the testing and commissioning of the new system in 2013, several complications were observed, including system vibrations, pipe flexing and issues with the valves not closing properly. The SLSDC concluded that it was not prudent to operate the new system until the issues were resolved.

In FY 2015, the SLSDC continued to work with the contractors and design engineers involved with this project to resolve the system issues. Four modifications were issued to the two principal contractors involved in the project (Parsons Brinkerhoff, Inc., Boston, Mass., and Hohl Industrial Services, Tonawanda, N.Y.) to continue working towards resolving the system issues. In addition, the SLSDC awarded a contract to Lee C. Gerbig, LLC, Avon, Ind., (small business; sole source) for \$9,000 to study and evaluate the operating problems with the 14 new knife gate valves installed in the ice flushing system.

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

General Description: This project is for rehabilitating and replacing the operating machinery for the miter gates at both U.S. Seaway locks. This machinery is more than 50 years old and needs to be upgraded to insure its continued reliability.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2015 Request Estimate (March 2014): \$1,800,000

FY 2015 Internal Spending Plan (January 2015): \$1,500,000

FY 2015 Obligations: \$1,568,096

Total Obligations (FYs 2009-2015): \$5,444,105 (FYs 2011-2015)

Project Update (as of September 30, 2015): As modifications to its FY 2014 contracts related to rebuilding the miter gate machinery at both U.S. Seaway lock, the SLSDC issued three contract modifications totaling \$1,458,865 to Timken Gears and Services (doing business as Philadelphia Gear), King of Prussia, Pa., for additional work to both the primary and spare gearboxes. In addition, the SLSDC issued two contract modifications and awarded two contracts for work and supplies related to bull gear pins and center bushings as part of the project. The two contract modifications totaling \$14,178 were made to 3T Federal Solutions, LLC, (small business; simplified acquisition; award based on lowest price) with new contracts awarded to Hannibal Machine Inc., Hannibal, Mo. (small business; simplified acquisition; award based on lowest price) for \$23,584 and to BelleFlex Technologies, Ford City, Pa. (small business; simplified acquisition; award based on lowest price) for \$51,240.

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**(17) Project No. 52: Corporation Facilities – Eisenhower Lock Visitors’ Center – Replace**

General Description: Each year, the 50-year-old Dwight D. Eisenhower Lock Visitors’ Center is visited, on average, by more than 50,000 people and is an important attraction for Upstate New York tourism. The Center provides historical displays of the St. Lawrence Seaway and U.S. President Eisenhower and also includes observation decks for tourists to watch vessels transiting the lock. A new facility will address many of the shortcomings of the current one, including security, operational safety (current center location limits crane accessibility on the south side of the lock), and accessibility for the disabled.



*The new SLSDC Eisenhower Lock Visitors’ Center security and restroom facility was open to visitors in May 2015.*

Type of Project: Capital Project

Mission Objective: Facility-Equipment Upgrade and Maintenance

FY 2015 Request Estimate (March 2014): \$0

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

FY 2015 Obligations: \$5,631

Total Obligations (FYs 2009-2015):  
\$1,111,537 (FYs 2011, 2013-2015)

Project Update (as of September 30, 2015): In May 2015, the SLSDC officially opened the new security and restroom facility at the Eisenhower Lock Visitors’ Center. Construction on the facility began in FY 2014. In FY 2015, the SLSDC issued a contract modification to Continental Construction, LLC, Gouverneur, N.Y. (small business; sealed bidding; small business set-aside; award based on lowest price) for \$5,415 for additional



work to perform geotechnical inspection and compaction testing services for subgrade work.

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**(18) 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 2015 Request Estimate (March 2014): \$50,000

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

FY 2015 Obligations: \$8,405

Total Obligations (FYs 2009-2015): \$143,272 (FYs 2011-2015)

Project Update (as of September 30, 2015): In FY 2015, the SLSDC purchased new lights for the lock galleries and installed a new propane filling station for its dual-fueled vehicles. All work was completed by SLSDC employees during FY 2015.

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**(19) 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 are 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 2015 Request Estimate (March 2014): \$50,000

FY 2015 Internal Spending Plan (January 2015): \$40,000

FY 2015 Obligations: \$29,000

Total Obligations (FYs 2009-2015): \$29,000 (FY 2015)

Project Update (as of September 30, 2015): In FY 2015, the SLSDC purchased a new 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. The new push-to-talk system also integrates with the SLSDC's existing radio system at the ground levels of both locks. 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 radio system equipment contract was awarded to Comtrol Corporation, Irwin, Pa. (large business; simplified acquisition) for \$29,000. The new system is expected to be installed by SLSDC personnel and become operational in FY 2016.

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(20) **Project No. 60: Both Locks – Improve Access to and Rehabilitate Machinery in Crossovers and Recesses**

General Description: This project is a multi-year project to replace the access stairways and to rehabilitate the operating machinery that is located within the crossover galleries and recesses at both U.S. Seaway locks. The current stairways will be replaced with corrosion resistant stairways. The equipment will be cleaned and coated to remove existing and prevent further corrosion. In addition, severely corroded components such as support structures and anchor bolts will be replaced with corrosion resistant materials.

Type of Project: Capital Project

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

FY 2015 Request Estimate (March 2014): \$250,000

FY 2015 Internal Spending Plan (January 2015): \$750,000

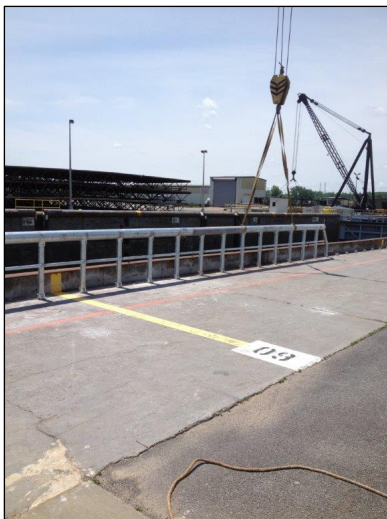
FY 2015 Obligations: \$716,052

Total Obligations (FYs 2009-2015): \$716,052 (FY 2015)

Project Update (as of September 30, 2015): In July 2015, the SLSDC awarded a contract to Upstate Construction Services, East Syracuse, N.Y. (small business; sealed bidding; award based on lowest price) for \$716,052 to perform all work to remove existing metal recess access stairways and replace with fiber reinforced polymer recess access stairway systems at various locations at both U.S. Seaway locks. This project is one component of the SLSDC's pro-active steps taken to enhance the safety equipment and protocols for SLSDC workers and contractors. The installation of the new stairway systems is expected to be completed in early 2016 during winter work.

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



*The new safety guardrail system at the U.S. Snell Lock.*

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 2015 Request Estimate (March 2014): \$0

FY 2015 Internal Spending Plan (January 2015): \$550,000

FY 2015 Obligations: \$548,678

Total Obligations (FYs 2009-2015): \$548,678 (FY 2015)

Project Update (as of September 30, 2015): To enhance the safety for its lock workers and crews, the SLSDC developed a new guardrail system to be installed along the north walls at both locks. This project is one component of the SLSDC's pro-active approach to enhance the safety equipment and protocols for SLSDC workers and contractors. In FY 2015, the SLSDC awarded a contract to Rand and Jones Enterprises, Buffalo, N.Y., (small business set aside; negotiated procurement; award based on trade-off procedures) for \$521,230. The new guardrail system was installed and put into operations at both locks during the 2015 navigation season.

In addition, the SLSDC awarded a contract to Modern Mechanical FAB Inc., Champlain, N.Y., (small business; simplified acquisition; award based on lowest price; technically acceptable) for \$15,250 to fabricate new boarding ramps for pilots and SLSDC staff to accommodate the new railing height at both locks.

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**SLSDC ARP Obligations (FYs 2009-2015)**

ARP #	ARP Project Description	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	TOTAL
1	Both Locks - Replace Fendering on Approach Walls	\$241,600	\$8,091	\$0	\$0	\$0	\$188,725	\$140	\$438,556
2	Both Locks - Rehabilitate Downstream Miter Gates	\$0	\$0	\$3,539,935	\$8,384	\$3,009,854	\$203,666	\$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	\$35,422
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	\$4,117,050	\$344,915	\$3,965,005	\$539,889	\$203,678	\$23,906	\$1,700	\$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	\$169,312
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	\$3,102,878	\$5,680,707	\$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	\$2,167,238
8	Floating Navigational Aids - Replace	\$61,254	\$54,576	\$0	\$0	\$31,434	\$68,149	\$125,562	\$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	\$2,750,885
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	\$427,898
11	Fixed Navigational Aids - Rehabilitate	\$0	\$10,998	\$16,217	\$21,048	\$29,210	\$14,199	\$22,456	\$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	\$8,121,835
13	Corporation Facilities - Replace Roofs	\$143,949	\$0	\$3,348	\$89,024	\$17,820	\$0	\$283,426	\$537,567
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	\$921,837	\$1,829,621	\$85,481	\$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	\$1,576,229
16	Corporation Technologies - Upgrade GPS/AIS/TMS	\$100,997	\$76,451	(\$3,328)	\$10,000	\$6,350	\$10,000	\$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	\$95,714	\$100	\$100	\$19,542	\$8,061,279
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	\$0	\$487,750	\$109,490	\$268,549	\$0	\$0	\$0	\$865,789
19	Corporation Facilities - Upgrade Lock Status/Controls	\$8,558	\$139,805	\$306,847	\$41,304	\$1,465	\$420	\$7,384	\$1,110,820
20	Both Locks - Upgrade Lock Status/Controls	\$8,558	\$139,805	\$89,507	\$37,549	\$76,722	\$32,570	\$37,698	\$422,409
21	Both Locks - Compressed Air Systems - Upgrade/Replace	\$19,878	\$787,549	\$3,381	\$986	\$0	\$0	\$4,154	\$815,948
22	Both Locks - Install Vessel Self Spotting Equipment	\$0	\$0	\$0	\$0	\$0	\$485,201	\$1,491	\$486,692
23	Both Locks - Install Hands-Free Mooring System	\$0	\$0	\$0	\$0	\$0	\$686,074	\$10,756,839	\$11,442,913
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	\$37,561	\$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	\$8,155
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	\$0	\$418,000	\$12,144	\$0	\$1,115,266	\$18,572	\$2,380	\$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	\$49,361
29	Eisenhower Lock - Walls, Sills, and Culverts - Rehabilitate Concrete	\$0	\$209,395	\$0	\$0	\$0	\$209,395	\$0	\$418,790
31	Both Locks - Rehabilitate Upstream Miter Gates	\$2,201,585	\$2,478,896	\$347,662	\$14,961	(\$750)	\$0	\$0	\$5,042,354
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	\$0	\$12,734	\$346,600	\$0	\$2,099,934	\$42,445	\$0	\$2,501,713
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	\$0	\$0	\$0	\$0	\$6,938	\$301,737	\$152	\$308,827
34	Both Locks - Improve Ice Control	\$0	\$7,462	\$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	\$2,141,095
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	\$0	\$0	\$0	\$189,763	\$25,721	\$23,568	\$17,936	\$256,988
41	Snell Lock - Install Ice Flushing System Technologies	\$0	\$0	\$272,000	\$11,477,293	\$1,577,272	\$90,045	\$128,144	\$13,544,754
42	Both Locks - Miter Gates - Structural Rehabilitation	\$0	\$0	\$0	\$210	\$2,898,819	\$3,740,613	\$0	\$5,639,642
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	\$0	\$0	\$133,364	\$1,207	\$505	\$3,740,933	\$1,568,096	\$5,444,105
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	\$0	\$24,183	\$21,097	\$352,347	\$20,143	\$5,985	\$977	\$424,732
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	\$0	\$0	\$13,042	\$0	\$298,391	\$794,473	\$5,631	\$1,111,537
54	Corporation Facilities - Administration Building - Replace Elevator	\$0	\$0	\$140,346	\$0	\$0	\$0	\$0	\$140,346
55	Corporation Facilities - Maintenance Building - Replace Fuel Tanks	\$0	\$0	\$189,350	\$2,350	\$0	\$0	\$0	\$191,700
56	Corporation Facilities - Duty Free Store Property - Upgrade Security	\$0	\$0	\$13,025	\$0	\$0	\$0	\$0	\$13,025
57	Corporation Technologies - Upgrade Network Security	\$0	\$0	\$158,536	\$16,998	\$8,687	\$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	\$143,272
59	Corporation Facilities - Communications Improvements	\$0	\$0	\$0	\$0	\$0	\$0	\$29,000	\$29,000
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	\$0	\$0	\$0	\$0	\$0	\$0	\$716,052	\$716,052
61	Both Locks - Replace Recess Covers on Lock Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$2,200	\$2,200
65	Both Locks - Install Lock Wall Guardrails	\$0	\$0	\$0	\$0	\$0	\$0	\$548,679	\$548,679
--	Miscellaneous Expenses	\$0	\$443	\$1,700	\$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	\$108,893,946

**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, \$674,000, \$570,000, and \$620,000 in personnel compensation for staff time associated with ARP work in FYs 2009-2015, 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.

# ARP Funding Summary (FYs 2009-2015)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2015 (Actual)	FY 2009				FY 2010			
			FY 2009 Congressional Request (02-04-09)	FY 2009 Internal Spending Plan (04-10-09)	FY 2009 Obligations (Actual) (09-30-09)	FY 2009 Congressional Request (05-07-09)	FY 2010 Internal Spending Plan (03-15-10)	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	\$438,556	\$300,000	\$300,000	\$241,600	---	---	---	\$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 Buttress, 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	\$4,117,050	---	---	---	\$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	\$8,793,585	\$2,000,000	\$2,000,000	\$3,102,878	\$5,773,000	\$4,500,000	\$5,773,000	\$4,500,000	\$5,680,707
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	\$2,187,238	\$600,000	\$600,000	---	---	---	\$603,000	\$287,000	\$326,898
8	Floating Navigational Aids - Replace	\$340,975	\$60,000	\$60,000	\$61,254	\$60,000	\$60,000	\$60,000	\$60,000	\$54,576
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	\$2,750,885	\$1,750,000	\$1,750,000	\$1,574,504	\$251,000	\$235,000	\$251,000	\$235,000	\$481,062
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	\$427,898	\$75,000	\$75,000	\$19,594	\$75,000	\$100,000	\$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	\$8,121,835	\$2,000,000	\$2,000,000	\$678,745	\$503,000	\$1,845,000	\$503,000	\$1,845,000	\$1,627,925
13	Corporation Facilities - Replace Roof's	\$537,567	\$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	\$1,508,000	\$1,000,000	\$1,829,621
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	\$1,576,229	\$250,000	\$250,000	\$26,636	---	---	---	\$275,000	\$271,804
16	Corporation Technologies - Upgrade GPS/AIS/TMS	\$190,470	\$100,000	\$100,000	\$100,997	\$100,000	---	---	---	\$76,451
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	\$8,081,279	\$5,000,000	\$5,000,000	\$4,279,556	---	---	---	---	---
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	\$665,789	---	---	---	---	---	---	---	---
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	\$1,110,820	---	---	---	---	---	\$503,000	\$500,000	\$487,750
20	Both Locks - Upgrade Lock Status/Controls	\$422,409	---	---	\$8,558	---	\$151,000	\$151,000	\$200,000	\$753,400
21	Both Locks - Compressed Air Systems - Upgrade/Replace	\$815,948	---	---	\$19,878	\$1,508,000	\$1,500,000	\$1,508,000	\$1,500,000	\$787,549
22	Both Locks - Install Vessel Self Spotting Equipment	\$486,692	---	---	---	---	---	\$251,000	---	---
23	Both Locks - Install Hands-Free Mooring System	\$11,442,913	---	---	---	---	---	---	---	---
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	\$37,561	---	---	\$37,561	\$201,000	---	\$201,000	---	---
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	\$8,155	---	---	\$4,148	\$101,000	\$5,000	\$101,000	\$5,000	---
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	\$1,566,362	---	---	---	\$201,000	\$200,000	\$201,000	\$200,000	\$418,000
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	\$49,361	---	---	---	\$201,000	\$200,000	\$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	\$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	\$2,201,685	---	---	---	\$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	\$13,544,754	---	---	---	---	---	---	\$100,000	---
42	Both Locks - Miter Gates - Structural Rehabilitation	\$6,639,642	---	---	---	---	---	---	---	---
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	\$5,444,105	---	---	---	---	---	---	---	---



# ARP Funding Summary (FYs 2009-2015)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2015 (Actual)	FY 2009			FY 2010		
			FY 2009 Congressional Request (02-04-09)	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 - 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						\$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	\$143,272						
59	Corporation Facilities - Communications Improvements	\$29,000						
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	\$716,052						
61	Both Locks - Replace Recess Covers on Lock Walls	\$2,200						
62	Both Locks - Install/Upgrade Air Curtains	\$0						
63	Both Locks - Install Electric Pleasure Craft Toll Collection Facility	\$0						
64	Corporation Facilities - Upgrade Lock Structures Maintenance Building							
65	Both Locks - Install Lock Wall Guardrails	\$548,679						
---	Miscellaneous Expenses	\$2,143						\$443
---	Engineering Design, Construction Inspection, Contracting Support, and Project Management (non-add)	---	\$300,000	\$300,000	\$608,769	\$306,000		
---	Personnel-Related Expenses (non-add)	\$4,728,000			\$474,000			\$535,000
Total		\$108,893,946	\$17,535,000	\$17,535,000	\$17,587,028	\$16,317,000	\$16,317,000	\$16,340,203

# ARP Funding Summary (FYs 2009-2015)

ARP Project No.	Project Costs Through FY 2015 (Actual)	ARP Project Title	FY 2011				FY 2012			
			FY 2011 Congressional Request (02-01-10)	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	\$438,566	Both Locks - Replace Fendering on Approach Walls	\$10,000	---	---	---	---	---	---	
2	\$6,761,839	Both Locks - Rehabilitate Downstream Miter Gates	\$4,250,000	\$4,250,000	\$3,539,935	\$4,380,000	\$2,700,000	\$8,384		
3	\$35,422	Both Locks - Rehabilitate Mooring Buttrons, Pins, and Concrete Along Guidewalls and Guardwalls	---	---	---	---	\$200,000	---	---	
4	\$9,170,537	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	\$4,500,000	\$4,500,000	\$3,965,005	---	\$180,000	\$539,889		
5	\$169,312	Both Locks - Rehabilitate Winter Maintenance Lock Covers	---	---	\$23,781	\$258,000	\$25,000	\$28,335		
6	\$9,793,585	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	\$3,466,000	\$3,066,000	---	---	---	---		
7	\$2,167,238	Both Locks - Culvert Valves - Replace with Single Skin Valves	\$300,000	\$300,000	\$65,591	\$405,000	\$300,000	\$302,468		
8	\$340,975	Floating Navigational Aids - Replace	\$61,000	\$61,000	---	\$61,000	\$60,000	---		
9	\$2,750,885	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	\$100,000	\$100,000	\$108,038	\$255,000	\$100,000	\$81,623		
10	\$427,898	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	\$50,000	\$50,000	\$93,613	\$20,000	\$40,000	\$28,003		
11	\$114,128	Fixed Navigational Aids - Rehabilitate	\$100,000	\$100,000	\$16,217	\$100,000	\$100,000	\$21,048		
12	\$8,121,835	Corporation Equipment - Upgrade/Replace Floating Plant/Tugs	\$505,000	\$505,000	\$1,908,563	\$1,524,000	\$2,335,000	\$2,160,169		
13	\$537,567	Corporation Facilities - Replace Roofs	\$130,000	\$130,000	\$3,348	\$230,000	\$40,000	\$89,024		
14	\$2,836,939	Corporation Facilities - Replace Paving and Drainage Infrastructure	\$750,000	---	\$85,481	---	---	---		
15	\$1,576,229	Eisenhower Lock - Highway Tunnel - Rehabilitate	\$650,000	\$650,000	\$99,459	---	---	\$1,523		
16	\$190,470	Corporation Technologies - Upgrade GPS/AIS/TMS	\$50,000	\$50,000	-\$3,328	---	---	\$10,000		
17	\$8,061,279	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	---	\$770,000	\$3,662,267	---	---	\$99,714		
18	\$865,789	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	---	---	\$109,490	---	\$250,000	\$268,549		
19	\$1,110,820	Corporation Facilities - Upgrade Electrical Distribution Equipment	\$150,000	---	\$306,847	\$400,000	\$400,000	\$41,304		
20	\$422,409	Both Locks - Upgrade Lock Status/Controls	\$75,000	\$75,000	\$89,507	---	---	\$37,549		
21	\$815,948	Both Locks - Compressed Air Systems - Upgrade/Replace	---	---	\$3,381	---	\$15,000	\$986		
22	\$486,692	Both Locks - Install Vessel Self Spotting Equipment	---	---	---	---	---	---		
23	\$11,442,913	Both Locks - Install Hands-Free Mooring System	---	---	---	---	---	---		
24	\$37,561	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	---	---	---	\$203,000	\$100,000	---		
25	\$8,155	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	---	---	\$4,007	---	---	---		
26	\$1,566,362	Corporation Facilities - Upgrade Storage for Lock Spare Parts	---	---	\$12,144	\$203,000	---	---		
27	\$49,361	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	---	---	\$5,537	\$203,000	\$50,000	\$8,070		
28	\$0	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	---	---	---	---	---	---		
29	\$209,395	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	---	---	---	---	---	---		
30	\$0	Eisenhower Lock - Ice Flushing System - Upgrade	---	---	---	---	---	---		
31	\$5,042,354	Both Locks - Rehabilitate Upstream Miter Gates	---	---	\$347,662	---	---	\$14,961		
32	\$2,501,713	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	\$253,000	\$253,000	\$346,600	\$254,000	\$250,000	---		
33	\$308,827	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	---	---	---	\$152,000	\$100,000	---		
34	\$7,462	Both Locks - Improve Ice Control	\$100,000	\$100,000	---	\$228,000	---	---		
35	\$0	Vessel Mooring Cells - Rehabilitate and Extend	\$100,000	\$100,000	---	---	---	---		
36	\$0	Eisenhower Lock - Diffusers - Replace	---	---	---	\$3,045,000	---	---		
37	\$0	Eisenhower Lock - Construct Drydock for Vessel Maintenance	---	---	---	---	---	---		
38	\$2,141,095	Both Locks - Upgrade/Replace Emergency Generators	---	---	---	\$508,000	\$100,000	---		
39	\$256,988	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	---	---	---	\$203,000	\$200,000	\$189,763		
40	\$0	Both Locks - Extend Guidewalls in Pool	---	---	---	---	---	---		
41	\$13,544,754	Snell Lock - Install Ice Flushing System Technologies	---	\$400,000	\$272,000	\$2,000,000	\$6,705,000	\$11,477,293		
42	\$6,639,642	Both Locks - Miter Gates - Structural Rehabilitation	---	---	---	\$761,000	\$750,000	\$210		
43	\$5,444,105	Both Locks - Miter Gate Machinery - Upgrade/Replace	---	---	\$133,364	\$1,632,000	---	\$1,207		

# ARP Funding Summary (FYs 2009-2015)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2015 (Actual)	FY 2011			FY 2012		
			FY 2011 Congressional Request (02-01-10)	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	\$143,272			\$47,511		\$50,000	\$57,036
59	Corporation Facilities - Communications Improvements	\$29,000						
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	\$716,052						
61	Both Locks - Replace Recess Covers on Lock Walls	\$2,200						
62	Both Locks - Install/Upgrade Air Curtains	\$0						
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			\$1,700			
---	Miscellaneous Expenses							
---	Engineering Design, Construction Inspection, Contracting Support, and Project Management (non-add)	---						
---	Personnel-Related Expenses (non-add)	\$4,728,000			\$783,000			\$672,000
Total		\$108,893,946	\$15,700,000	\$15,700,000	\$15,784,816	\$17,075,000	\$15,600,000	\$15,838,803

# ARP Funding Summary (FYs 2009-2015)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2015 (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	\$438,556	---	---	---	---	---	---	---	\$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 Buttress, Piers, 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	\$203,678	---	---	---	---	---
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	\$169,312	\$200,000	\$150,000	\$27,906	---	---	\$34,254	---	---
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	\$8,763,565	---	---	---	---	---	---	---	---
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	\$2,167,238	\$420,000	\$350,000	\$162	---	---	\$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	\$2,750,885	\$260,000	\$492,000	\$137,393	\$280,000	\$223,000	\$227,151	---	---
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	\$427,898	\$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	\$8,121,835	\$400,000	\$575,000	\$860,413	---	---	\$572,622	---	---
13	Corporation Facilities - Replace Roofs	\$537,567	\$300,000	\$555,000	\$17,820	\$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	\$1,576,229	\$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. Sectors to Maintain Design Grade and Dispose of Sediments	\$8,061,279	---	\$50,000	\$100	\$5,150,000	---	\$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	\$422,409	---	\$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	\$486,692	\$500,000	\$400,000	---	\$300,000	\$500,000	\$485,201	---	---
23	Both Locks - Install Hands-Free Mooring System	\$11,442,913	---	---	---	---	\$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	\$1,566,362	\$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	\$301,737	---	---
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	\$286,988	\$200,000	\$5,000	\$25,721	---	\$24,000	\$23,568	---	---
40	Both Locks - Extend Guidewalls in Pool	\$0	---	---	---	---	---	---	---	---
41	Snell Lock - Install Ice Flushing System Technologies	\$13,544,754	\$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	\$2,898,819	\$1,295,000	\$3,715,000	\$3,740,613	---	---
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	\$5,444,105	\$2,600,000	---	\$605	\$1,750,000	\$2,360,000	\$3,740,933	---	---

# ARP Funding Summary (FYs 2009-2015)

ARP Project No.	ARP Project Title	Total Project Costs Through FY 2015 (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 2014 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 - 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	\$50,000	\$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	\$143,272	\$200,000	\$53,400	\$8,180	\$100,000	\$30,000	\$22,140
59	Corporation Facilities - Communications Improvements	\$29,000	---	---	---	---	---	---
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	\$716,052	---	---	---	\$500,000	---	---
61	Both Locks - Replace Recess Covers on Lock Walls	\$2,200	---	---	---	\$100,000	---	---
62	Both Locks - Install/Upgrade Air Curtains	\$0	---	---	---	---	---	---
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)	\$4,728,000	---	---	\$674,000	---	---	\$970,000
Total		\$108,893,946	\$16,000,000	\$14,000,000	\$14,242,887	\$15,880,000	\$14,150,000	\$14,189,527

# ARP Funding Summary (FYs 2009-2015)

			FY 2015			
ARP Project No.	ARP Project Title	Total Project Costs Through FY 2015 (Actual)	FY 2015 Congressional Request (03-04-14)	FY 2015 Internal Spending Plan (01-05-15)	FY 2015 Obligations (Actual) (09-30-15)	
1	Both Locks - Replace Fendering on Approach Walls	\$438,556	\$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	\$2,167,238	---	\$100,000	\$102,091	
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	\$2,750,885	\$200,000	\$125,000	\$141,124	
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	\$427,898	\$20,000	---	---	
11	Fixed Navigational Aids - Rehabilitate	\$114,128	\$100,000	\$25,000	\$22,456	
12	Corporation Equipment - Upgrade/Replace Floating Plant/Tugs	\$8,121,835	\$750,000	\$330,000	\$313,398	
13	Corporation Facilities - Replace Roofs	\$537,567	\$500,000	\$400,000	\$283,426	
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	\$2,836,939	---	---	---	
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	\$1,576,229	---	\$35,000	\$33,583	
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	\$422,409	\$50,000	\$40,000	\$37,698	
21	Both Locks - Compressed Air Systems - Upgrade/Replace	\$815,948	\$100,000	\$10,000	\$4,154	
22	Both Locks - Install Vessel Self Spotting Equipment	\$486,692	---	---	\$1,491	
23	Both Locks - Install Hands-Free Mooring System	\$11,442,913	\$8,000,000	\$10,800,000	\$10,756,839	
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	\$13,544,754	---	\$130,000	\$128,144	
42	Both Locks - Miter Gates - Structural Rehabilitation	\$6,639,642	\$800,000	---	---	
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	\$5,444,105	\$1,800,000	\$1,500,000	\$1,568,096	



# ARP Funding Summary (FYs 2009-2015)

ARP Project No.	ARP Project Title	FY 2015			
		Total Project Costs Through FY 2015 (Actual)	FY 2015 Congressional Request (03-04-14)	FY 2015 Internal Spending Plan (01-05-15)	FY 2015 Obligations (Actual) (09-30-15)
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
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	\$143,272	\$50,000	\$10,000	\$8,405
59	Corporation Facilities - Communications Improvements	\$29,000	\$50,000	\$40,000	\$29,000
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	\$716,052	\$250,000	\$725,000	\$716,052
61	Both Locks - Replace Recess Covers on Lock Walls	\$2,200	\$165,000	\$25,000	\$2,200
62	Both Locks - Install/Upgrade Air Curtains	\$0	---	---	---
63	Both Locks - Install Electric Pleasure Craft Toll Collection Facility	\$0	---	---	---
64	Corporation Facilities - Upgrade Lock Structures Maintenance Building	\$548,679	---	\$550,000	\$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)	\$4,728,000	---	---	\$620,000
Total		\$108,893,946	\$14,300,000	\$15,065,000	\$14,912,825

# SLSDC Asset Renewal Program (ARP)

## FY 2017 Request / FY 2018-2021 Estimates<sup>1</sup>

PROJECT NO.	PROJECT TITLE	FY 2017 REQUEST	FY 2018 ESTIMATE	FY 2019 ESTIMATE	FY 2020 ESTIMATE	FY 2021 ESTIMATE	FIVE-YEAR TOTALS
1	Both Locks -- Replace Fending on Approach Walls	---	---	---	\$300,000	\$300,000	\$600,000
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	---	---	---	\$400,000	\$400,000	\$800,000
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	---	---	---	---	\$400,000	\$400,000
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	---	\$10,000	\$10,000	\$100,000	\$100,000	\$220,000
8	Floating Navigational Aids - Replace	---	\$200,000	\$200,000	\$250,000	\$250,000	\$900,000
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	\$100,000	\$500,000	\$300,000	\$400,000	\$500,000	\$1,800,000
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	---	\$50,000	\$75,000	\$150,000	\$150,000	\$425,000
11	Fixed Navigational Aids - Rehabilitate	---	\$100,000	\$100,000	\$150,000	\$150,000	\$500,000
12	Corporation Equipment - Floating Plant/Tugs - Replace	\$10,000,000	\$5,000,000	\$6,000,000	\$500,000	\$100,000	\$21,600,000
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	---	---	\$1,000,000	\$1,750,000	\$2,000,000	\$4,750,000
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	---	---	\$500,000	---	\$300,000	\$800,000
16	Corporation Technologies - Upgrade GPS/AIS/TMS	---	\$100,000	\$100,000	\$150,000	\$150,000	\$500,000
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	---	\$5,000,000	---	\$7,500,000	---	\$12,500,000
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	---	\$50,000	\$100,000	\$100,000	\$1,000,000	\$1,250,000
20	Both Locks - Upgrade Lock Status/Controls	---	\$100,000	\$100,000	\$100,000	\$100,000	\$400,000
21	Both Locks - Compressed Air Systems - Upgrade/Replace	\$100,000	\$100,000	---	---	---	\$200,000
22	Both Locks - Install Vessel Self Spotting Equipment	---	\$100,000	\$100,000	---	---	\$200,000
23	Both Locks - Install Hands-Free Mooring System	\$6,650,000	\$300,000	\$50,000	\$50,000	\$50,000	\$7,100,000
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	---	---	\$250,000	\$100,000	\$100,000	\$450,000
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	---	\$100,000	---	---	\$150,000	\$250,000
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts and Equipment	---	---	\$200,000	\$750,000	---	\$950,000
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	---	\$100,000	\$100,000	\$200,000	\$1,000,000	\$1,400,000
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	---	---	---	\$2,000,000	\$3,000,000	\$5,000,000
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	---	---	\$2,000,000	---	\$3,000,000	\$5,000,000
30	Eisenhower Lock - Ice Flushing System - Upgrade	\$100,000	---	---	---	\$100,000	\$200,000
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	---	---	\$50,000	\$250,000	---	\$300,000
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	---	\$200,000	\$50,000	\$50,000	\$50,000	\$350,000
34	Both Locks - Improve Ice Control	---	\$50,000	\$50,000	\$250,000	\$250,000	\$600,000
35	Vessel Mooring Cells - Rehabilitate and Extend	---	\$100,000	\$100,000	---	---	\$200,000
36	Eisenhower Lock - Diffusers - Replace	---	---	\$2,500,000	---	---	\$2,500,000
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	---	---	---	\$1,000,000	---	\$1,000,000
38	Both Locks - Upgrade/Replace Emergency Generators	\$100,000	---	---	\$700,000	---	\$800,000
41	Snell Lock - Install Ice Flushing System Technologies	---	\$1,000,000	---	---	---	\$1,000,000

# SLSDC Asset Renewal Program (ARP)

## FY 2017 Request / FY 2018-2021 Estimates<sup>1</sup>

PROJECT NO.	PROJECT TITLE	FY 2017 REQUEST	FY 2018 ESTIMATE	FY 2019 ESTIMATE	FY 2020 ESTIMATE	FY 2021 ESTIMATE	FIVE-YEAR TOTALS
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	---	\$800,000	---	---	---	\$800,000
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	---	\$500,000	\$500,000	---	---	\$1,000,000
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	---	---	\$2,000,000	---	---	\$2,000,000
48	Both Locks - Stiffleg Derricks - Replace	---	---	---	---	\$1,000,000	\$1,000,000
50	Snell Lock - Diffusers - Replace	---	---	---	---	\$2,500,000	\$2,500,000
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	---	\$50,000	\$50,000	\$60,000	\$60,000	\$220,000
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	---	\$4,000,000	\$800,000	---	---	\$4,800,000
57	Corporation Technologies - Upgrade Network Security	---	\$50,000	\$50,000	\$60,000	\$60,000	\$220,000
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	\$100,000	\$100,000	\$100,000	\$150,000	\$150,000	\$600,000
59	Corporation Facilities - Communications Improvements	---	\$200,000	---	---	\$100,000	\$300,000
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	---	\$100,000	\$100,000	\$125,000	\$125,000	\$450,000
61	Both Locks - Replace Recess Covers on Lock Walls	\$100,000	\$50,000	\$50,000	\$60,000	\$60,000	\$320,000
62	Both Locks - Install/Upgrade Air Curtains	---	\$50,000	\$2,000,000	---	\$2,000,000	\$4,050,000
63	Both Locks - Install Electronic Pleasure Craft Toll Collection Facilities	---	---	\$100,000	---	---	\$100,000
64	Corporation Facilities - Upgrade Lock Structures Maintenance Building	\$100,000	\$50,000	---	---	---	\$150,000
66	Corporation Facilities - Upgrade/Replace CCTV Systems	---	\$250,000	---	---	---	\$250,000
67	Both Locks - Improve Lighting	---	\$100,000	\$100,000	\$125,000	\$125,000	\$450,000
68	Corporation Facilities - Repair/Replace Security Fencing	---	\$100,000	\$100,000	\$100,000	\$100,000	\$400,000
69	Both Locks - Repair/Replace Corroded Piping and Malfunctioning Valves	---	\$200,000	\$200,000	\$100,000	\$100,000	\$600,000
70	Snell Lock - Upgrade Bailey Bridge / Install Swing Bridge	---	\$50,000	---	---	---	\$50,000
71	Corporation Facilities - Facility and Underground Utilities Improvements	---	---	\$200,000	---	---	\$200,000
72	Corporation Facilities - Stormwater Upgrades	---	---	---	\$100,000	---	\$100,000
74	Corporation Facilities - Building Rehabilitation	---	\$50,000	\$50,000	\$60,000	\$60,000	\$220,000
75	Maintenance Facility - Install Vehicle Corrosion Prevention Facility	---	---	---	---	\$250,000	\$250,000
76	Maintenance Facility - Upgrade Waste Storage and Lead Decontamination Rooms	---	\$10,000	\$10,000	---	---	\$20,000
79	Maintenance Facility - Replace Buried Potable Water Line	---	\$300,000	---	---	---	\$300,000
80	Corporation Facilities - Renewable Energy Project	---	---	---	\$2,000,000	---	\$2,000,000
<b>TOTAL</b>		<b>\$17,350,000</b>	<b>\$20,170,000</b>	<b>\$20,345,000</b>	<b>\$20,140,000</b>	<b>\$20,290,000</b>	<b>\$98,295,000</b>

<sup>1</sup> Total funding for each year of the plan constrained to funding targets for those years as approved by the U.S. Secretary of Transportation and subject to annual appropriations