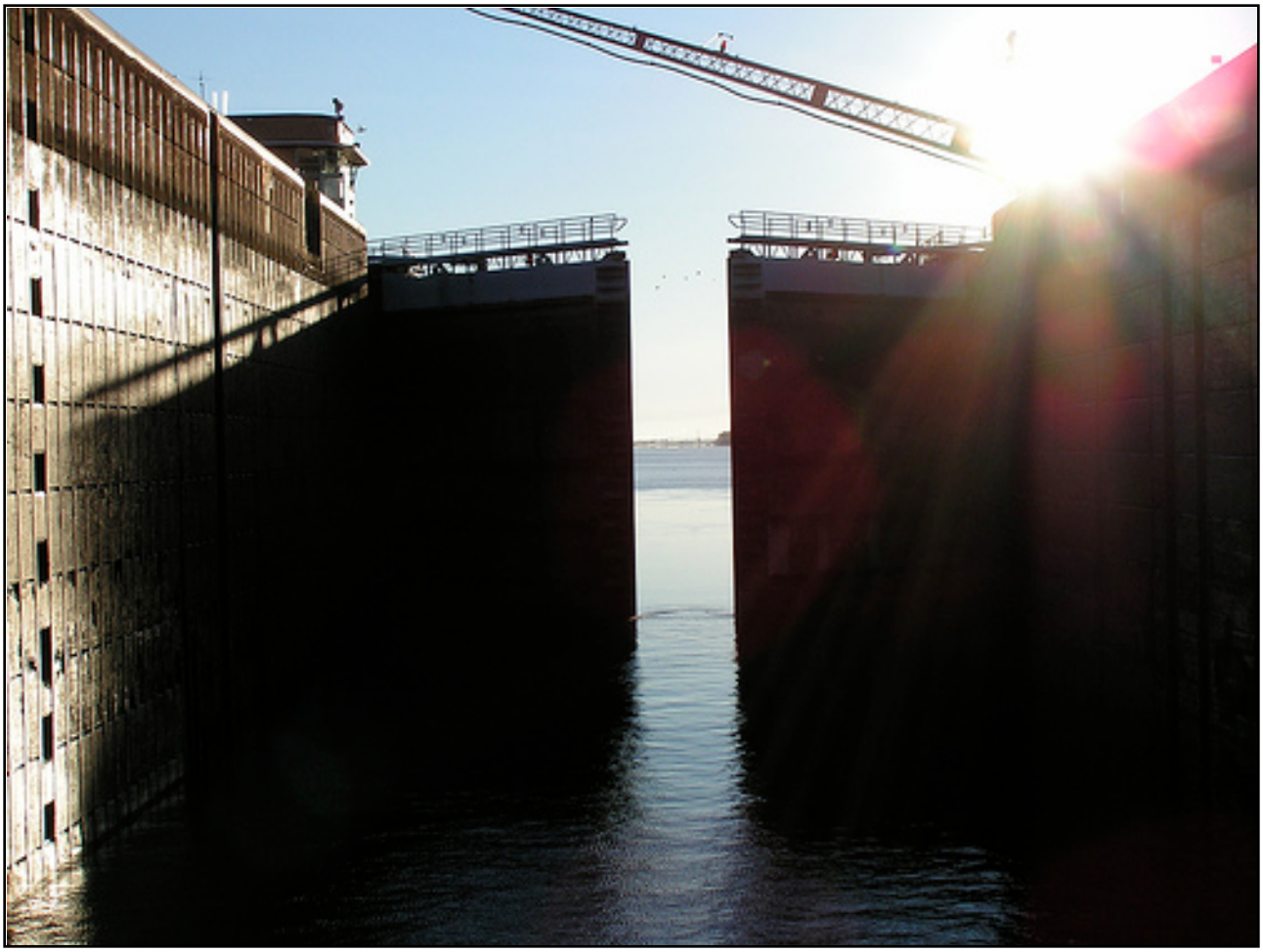
Saint Lawrence Seaway Development Corporation

Seaway Asset Renewal Program (ARP) Annual Report to Congress



September 30, 2013

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Background and Summary

As directed in the Senate Report (S. Rept. 112-83) of S. 1596 (Transportation and Housing and Urban Development, and Related Agencies Appropriations Bill, 2014), 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 multi-year capital 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 these perpetual assets, it will become increasingly difficult to maintain the future availability and reliability of the Seaway.

In FY 2013, the SLSDC obligated $14.2 million on 27 ARP projects. Major ARP activities obligated in FY 2013 included: ARP Project No. 2 – Snell Lock downstream miter gate rehabilitation ($3 million); ARP Project No. 42 – Eisenhower Lock miter gates structural rehabilitation ($2.9 million); ARP Project No. 32 – Snug Harbor spare gate storage and assembly area upgrades ($2.1 million); ARP Project No. 38 – emergency generator replacements ($1.8 million); and ARP Project No. 41 – Snell Lock ice flushing system installation ($1.6 million).

In the first five years of the ARP (FYs 2009-2013), the SLSDC obligated $79.8 million on 42 separate ARP projects *(see page 24)*. 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 replacements/modernizations.

Although the majority of ARP work is completed by contractors, the SLSDC's federal workforce is directly responsible for completing maintenance-related activities as well as pre-contract work for the ARP, including preparation of designs, specifications, and drawings, as well as ongoing contract management. In FY 2013, the SLSDC expended an additional $674,000 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 $3.1 million.

Unlike many other lock-based waterway systems, the St. Lawrence Seaway is a single-lock system and not a twinned lock system that more readily ensures continued operations in the event of a lock failure. A delay or shutdown at any one of the 15 U.S. or Canadian Seaway locks would cause system-wide delays. An economic analysis completed in 2007 concluded that the economic impact of a shutdown of either of the two U.S. locks would result in a loss of approximately $1.3-$2.3 million in productivity per day, depending on cargo and the length of the delay. In 1985, a lock wall failure at the Canadian Welland Canal caused 53 commercial vessels to be trapped in the Seaway System for 24 days at a cost to shippers of more than $24 million, an approximate value of $53 million in 2013 dollars. The ARP program is vital to ensuring that the Seaway System and its locks remain available for the flow of goods across North America in the future.

At the onset of the program, the SLSDC created an ARP Internal Working Group that meets regularly to review the status of on-going projects and to collectively discuss ways to improve the overall management, execution, and reporting of the program. The Internal Working Group is made up of SLSDC managers and staff in engineering, procurement, financial management, budget, counsel, and policy. The Working Group reviews project plans and milestones, troubleshoots concerns, and reports progress to SLSDC senior executives.

Each year following the enactment of the SLSDC's annual appropriation, the Internal Working Group develops a revised internal ARP 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.

The SLSDC's multi-year ARP supports the engineering considerations highlighted in the 2007 *Great Lakes St. Lawrence Seaway Study* and complements the asset renewal activities currently underway at the Canadian Seaway locks. The Canadian portion of the St. Lawrence Seaway is managed and operated by the St. Lawrence Seaway Management Corporation (SLSMC). Beginning with the passage of the Canada Marine Act in 1998, the Canadian government started to address the asset renewal needs of its 13 Seaway locks, including the eight Welland Canal locks that are over 75 years old.

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 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. Most notably, a $1 billion-plus fleet modernization and renewal effort is underway among the three major fleets that trade in the Great Lakes Seaway System.

In order to help ensure that the St. Lawrence Seaway opens each spring for navigation as scheduled, the SLSDC includes monetary incentives and penalties for 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 2013, SLSDC awarded two monetary incentives for $20,000 each — Kubricky Construction for the downstream miter gate rehabilitation project at Eisenhower Lock (ARP Project No. 2) and Hohl Industrial Services for the culvert valve machinery project (ARP Project No. 4). No performance-related penalties were assessed against any ARP contractor.

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.

To that end, the SLSDC awarded indefinite delivery contracts (IDCs) in FY 2009 to three architecture/ engineering (A/E) firms to support the ARP through FY 2013: Hatch Mott MacDonald, Buffalo, N.Y.; Parsons Brinckerhoff, Inc., Buffalo, N.Y.; and Aubertine and Currier, Watertown, N.Y. The SLSDC used these A/E contractors to receive design support and expert advice on project plans, specifications, and drawings. As support work was needed, the SLSDC requested proposals from the three firms in a streamlined process, with negotiations, as required, limited to only those firms. The policies and procedures for awarding indefinite delivery contracts are contained in Federal Acquisition Regulation (FAR), Subpart 16.5. The SLSDC expects to re-solicit for these A/E services in FY 2014 with options for four additional years.

ARP baseline project estimates developed by the SLSDC used one or more of four estimation methods, as applicable: (1) historical costs for similar work completed previously by the SLSDC, (2) consultation with the U.S. Army Corps of Engineers (USACE) for similar work it completed at other U.S. locks, (3) consultation with the SLSMC for similar work it completed at the Canadian Seaway locks, and/or (4) utilization of data from RSMeans®, which serves as North America's leading supplier of construction cost information. Estimates used in developing ARP spending plans and out-year estimates also considered final contract totals for similar ARP work awarded during the program's first five years (FYs 2009-2013).

This annual report provides the Appropriations Committees with updates on (1) FY 2013 ARP winter work projects; (2) ARP economic impacts to Upstate New York; (3) ARP Capital Investment Plan summary (FYs 2015-2019); (4) FY 2013 ARP Project Updates; (5) ARP obligations by project for FYs 2009-2013; (6) ARP funding summary for FYs 2009-2013; and (7) the latest five-year estimates for ARP projects in FYs 2015-2019.

FY 2013 ARP Winter Work Projects

In FY 2013, the SLSDC completed three major ARP projects during the non-navigation winter months: installation of an ice flushing system at Snell Lock; rehabilitation of the downstream miter gate at Eisenhower Lock; and installation of culvert valve operating machinery at both locks.

The 2013 winter work presented SLSDC staff and seven contractors with the most crucial, difficult, and labor intensive project activity since the ARP began in 2009, and contractor crews worked around-the-clock in order to complete the work. For the 2013 winter work period, there were no work manhours lost due to safety-related incidents for work spanning three months and comprising nearly 130,000 documented work manhours.

The 2013 ARP winter work concentrated on three major projects:

Project No. 2 – Eisenhower Lock miter gate rehabilitation – After completing miter gate rehabilitation to the upstream (westbound) gates at both U.S. locks over the previous two winters, the SLSDC's 2013 efforts focused on rehabilitation of the downstream gates, which consist of two leafs each 90 feet tall and weighing approximately 300 tons (approximately twice the height and weight of the upstream gate leafs). The rehabilitation work included disconnecting the two gate leafs from their anchorage assemblies and replacing worn and/or damaged components including miter and quoin contact blocks, pintles, rubber seals, and diagonals to ensure proper functioning of the miter gates.

Project No. 4 – Valve operating machinery modernization – The FY 2013 upgrades to the Seaway lock culvert valve operating machinery completed this multi-year ARP project. Work during the winter months included modernizing the electro-mechanical operating machinery for the south side filling and emptying valves at both Eisenhower and Snell Locks with a modernized hydraulic system. The machinery for the north side valves at both locks was replaced the previous winter.

Project No. 41 – Snell Lock ice flushing system installation – The new system will allow for safer and more efficient transit of vessels through the U.S. Snell Lock when ice conditions are present, causing less wear-and-tear on the lock infrastructure and machinery. The SLSDC's Eisenhower Lock has had an operational ice flushing system since the late 1970s. The FY 2013 work included removing approximately 1,600 cubic yards of concrete from the upstream miter gate sill, installing seven galvanized steel pipes, and placing new concrete, returning the gate sill back to its original geometry.

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, more than 70 percent of the ARP funds obligated during the program's first five years, totaling more than $58 million, were awarded within the region.

In addition to these contracts, the ARP is producing approximately $1.5-$2.5 million in additional economic benefits to the region (e.g., 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, $14.1 billion in personal income, $33.6 billion in transportation-related business revenue, $6.4 billion in local purchases, and $4.6 billion in federal, state, provincial, and local taxes. The binational waterway also provides approximately $3.6 billion in annual transportation cost savings compared to competing rail and highway routes.

ARP Capital Investment Plan Summary (FYs 2015-2019)

As highlighted in the *U.S. St. Lawrence Seaway ARP Capital Investment Plan (CIP), 2015-2019*[1], which was included in the SLSDC's FY 2015 President's Budget request, the SLSDC provided estimates for executing the next five years of the ARP *(see page 28)*. For the FY 2015-2019 period, the Seaway ARP/CIP includes 44 separate ARP projects estimated at $90.9 million.

Dollar amounts for future ARP projects are "project feasibility" estimates that can vary by an industry-recognized 20-30 percent. Project estimates and schedules may fluctuate at various points in the lifespan of the ARP. Estimates will be revised as needed and on a continuing basis throughout the length of the program. The SLSDC's ARP Internal Working Group has successfully worked to ensure that the program's schedule is maintained and that projects are administered in a timely and cost-effective way.

The SLSDC also proposed, as part of the FY 2015 President's Budget, the extension of the program beyond its originally scheduled completion in FY 2018. This extension would serve two purposes: (1) to ensure the completion of all original ARP projects, several of which were deferred in order to meet lower-than-estimated annual funding levels in recent years; and (2) to allow the SLSDC to address recurring capital needs beyond the timeframe of the original ARP as it transitions to a more structured capital asset management program.

[1] http://www.greatlakes-seaway.com/en/pdf/SLSDC_Asset_Renewal_Plan2015.pdf

FY 2013 ARP Project Updates

The following information provides an update on the 22 ARP projects that were funded in FY 2013 with obligations in excess of $1,500[2]. 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. 2: Both Locks – Rehabilitate Downstream Miter Gates

General Description: This project is to completely rehabilitate the miter gates at the easternmost (downstream) end of both Eisenhower and Snell Locks. It includes replacing worn and damaged components including the miter and quoin contact blocks, rubber seals, pintles, and diagonals that insure proper functioning of the miter gates. These parts are critical to the safe and efficient operation of the locks.

Type of Project:[3] Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $230,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $3,032,500

FY 2013 Obligations:[4] $3,009,854

Total Obligations *(FYs 2009-2013)*: $6,558,173 (FYs 2011, 2012, and 2013)

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[2] There were six ARP projects with FY 2013 obligations below $1,500 that are not reported in the project update section: Project No. 7: Both Locks – Culvert Values – Replace with Single Skin Valves ($162); Project No. 17: Navigation Channels – Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments ($100); Project No. 19: Corporation Facilities – Upgrade Electrical Distribution Equipment ($1,465); Project No. 27: Corporation Facilities – Replace Windows and Doors and Repair Building Facades ($167); Project No. 31: Both Locks – Rehabilitate Upstream Miter Gates (recovery of $750); and Project No. 43: Both Locks – Miter Gate Machinery – Upgrade/Replace ($505).

[3] 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.

[4] 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.

Contractors work on the north downstream miter gate diagonals at Eisenhower Lock.

Project Update *(as of September 30, 2013)*: Kubricky Construction, Wilton, N.Y., completed its rehabilitation work on the downstream miter gate at Eisenhower Lock during the winter months of FY 2013 *(see page 4)*. The firm earned a $20,000 incentive payment for completing its work and demobilizing its equipment on time. This project was funded in FY 2011, but an additional $62,000 was expended in FY 2013 under a contract modification to fund both the incentive payment and $42,000 in additional work completed.

The SLSDC also awarded a contract for $2.7 million to Hohl Industrial Services, Inc., Tonawanda, N.Y. (large business; sealed bidding, award based on lowest price), for rehabilitation work on the downstream miter gate at Snell Lock, which is scheduled for the winter months of 2014. Construction inspection services for this project were also awarded in FY 2013 to C&S Engineers, Inc., Syracuse, N.Y. (large business; negotiated acquisition, award based on best value using trade off procedures), for $217,232.

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(2) Project No. 4: Both Locks – Culvert Valve Machinery – Upgrade to Hydraulic Operation

General Description: This project is for replacing the operating machinery for the culvert valves at both locks, which are utilized for filling and emptying the locks. This machinery is over 50 years old and the open gearing is exhibiting macropitting, a type of fatigue failure where the stresses in the gear teeth cause surface cracks and the detachment of metal fragments. This equipment needs to be upgraded to ensure its continued reliability. Failure of this equipment will cause delays to shipping while repairs are made. Due to the fact that this machinery was custom made and spare parts are limited, repairs to multiple pieces of machinery using on-hand spare parts is not possible.

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

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $0

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $207,000

FY 2013 Obligations: $203,678

Total Obligations *(FYs 2009-2013)*: $9,170,537 (FYs 2009, 2010, 2011, 2012, and 2013)

Project Update *(as of September 30, 2013)*: Hohl Industrial Services, Inc., Tonawanda, N.Y., completed its work during the winter months of 2013 to replace the electro-mechanical operating machinery for the south side filling and emptying valves at both Eisenhower and Snell Locks with new hydraulic machinery *(see page 4)*. The firm earned a $20,000 incentive bonus for completing its work and demobilizing its equipment on time. This contract was awarded in FY 2009, but was delayed at the contractor's request due to material supplier issues.

In addition, the SLSDC awarded a contract in FY 2013 for $147,457 to Lowe, Gravelle & Associates, Massena, N.Y. (small business; negotiated acquisition, award based on best value), to perform inspection and testing services for the hydraulic machinery upgrade.

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(3) Project No. 5: Both Locks – Rehabilitate and Modify Winter Maintenance Lock Covers

General Description: This project is for rehabilitating the roof and curtain wall modules used to cover Eisenhower and Snell Locks when major winter maintenance projects are planned. These covers are over 45 years old and require rehabilitation. By installing the new access panels, SLSDC staff will no longer be required to remove entire roof cover modules to access work areas. By rehabilitating and modifying the curtain wall modules, the SLSDC staff will be able to install the curtain walls more safely and efficiently.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $200,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $150,000

FY 2013 Obligations: $27,906

Total Obligations *(FYs 2009-2013)*: $133,358 (FYs 2009, 2010, 2011, 2012, and 2013)

Project Update *(as of September 30, 2013)*: In FY 2013, SLSDC staff rebuilt 4 of the 6 curtain wall modules to be used during winter work in the locks. It is expected that these curtain walls will be used during 2014 winter work. There were supply purchases and drawdowns on inventory associated with this project totaling $27,906.

(4) Project No. 8: Floating Navigation Aids -- Replace

General Description: This is an ongoing program to replace floating navigational aids/buoys, lights, and winter markers that have been damaged over the years. The Corporation is responsible for approximately 125 buoys, 110 fixed lights, and 50 winter markers along a 120-mile portion of the Seaway.

Type of Project: Capital Project

Mission Objective: Waterway Management

FY 2013 Request Estimate *(February 2012)*: $65,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $30,000

FY 2013 Obligations: $31,434

Total Obligations *(FYs 2009-2013)*: $147,264 (FYs 2009, 2010, and 2013)

Project Update *(as of September 30, 2013)*: In May 2013, the SLSDC purchased 12 winter markers (6 green and 6 red) through the U.S. Coast Guard's sole source contract with UMS Metal Fabricators, Mobile, Ala. (small business; Small Business Administration's (SBA) HUBZone[5] acquisition, U.S. Coast Guard sole source vendor), for $31,434.

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(5) 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 and assorted shop equipment. 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 2013 Request Estimate *(February 2012)*: $260,000

[5] The SBA's Historically Underutilized Business Zones (HUBZone) program helps small businesses in urban and rural communities gain preferential access to federal procurement opportunities. These preferences go to small businesses that obtain SBA HUBZone certification in part by employing staff who live in a HUBZone.

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $492,000

FY 2013 Obligations: $137,393

Total Obligations *(FYs 2009-2013)*: $2,382,610 (FYs 2009, 2010, 2011, 2012, and 2013)

Project Update *(as of September 30, 2013)*: In FY 2013, the SLSDC awarded a contract for $133,867 to Nortrax, Inc., Gouverneur, N.Y. (large business; simplified acquisition, award based on lowest price and technical acceptability), for an industrial four-wheel drive loader with trade-in.

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(6) Project No. 10: Both Locks – Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities

General Description: This project is for upgrading the infrastructure that supplies power to Eisenhower and Snell Locks and to the Corporation's Maintenance Facility. The power is furnished directly from the Moses-Saunders Power Dam over infrastructure that is over 50 years old. The loss of power from the Moses-Saunders Power Dam makes it necessary to use diesel generators, which are expensive to operate, to continue operation of Eisenhower and Snell Locks and the Maintenance Facility. Additionally, the diesel generators will not provide enough power to support all lock and maintenance operations.

Type of Project: Non-Capital Maintenance Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $20,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $20,000

FY 2013 Obligations: $17,099

Total Obligations *(FYs 2009-2013)*: $389,578 (FYs 2009, 2010, 2011, 2012, and 2013)

Project Update *(as of September 30, 2013)*: In FY 2013, the New York Power Authority (NYPA) continued its on-going rehabilitation of the infrastructure that supplies power to SLSDC for operations and maintenance activities. This work has to be coordinated with the SLSDC so that generators can be installed and/or operated while power is interrupted for work as it is completed. This is a recurring annual ARP project with expenditures dependent on NYPA plans and work completed. In September 2013, the SLSDC paid NYPA $17,099 (sole source) for its work on SLSDC power-related infrastructure rehabilitation.

(7) Project No. 11: Fixed Navigational Aids – Rehabilitate

Description: This project is for rehabilitating fixed navigational aids in the Seaway. Many of the structures are more than 50 years old and are in need of more than routine 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. The inspection of these structures has been completed by divers. Any repairs to the foundations will also require divers as well as the use of a tug and barge with crane to complete. Failure of a fixed aid would likely make replacement necessary at a cost significantly higher than repairing the existing structure.

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

Mission Objective: Waterway Management

FY 2013 Request Estimate *(February 2012)*: $200,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $35,000

FY 2013 Obligations: $29,210

Total Obligations *(FYs 2009-2013)*: $77,473 (FYs 2010, 2011, 2012, and 2013)

Project Update *(as of September 30, 2013)*: In May 2013, the SLSDC awarded a contract for $29,210 to Sealite USA, Gilford, N.H. (small business; small business set-aside acquisition, GSA eBuy, lowest price), for 24 solar marine lanterns (12 red and 12 green) to be used on SLSDC fixed navigation aids.

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(8) Project No. 12: Corporation Equipment – Upgrade/Replace Floating Plant

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 2013 Request Estimate *(February 2012)*: $400,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $575,000

FY 2013 Obligations: $860,413

Total Obligations *(FYs 2009-2013)*: $7,235,815 (FYs 2009, 2010, 2011, 2012, and 2013)

Project Update *(as of September 30, 2013)*: In FY 2013, the SLSDC's efforts on this project focused on three activities: (1) upgrading the SLSDC's buoy barge (awarded in late FY 2012); (2) evaluating the replacement vs. rebuild options for its two current tugboats, *Robinson Bay* and *Performance*; and (3) upgrading the electrical systems onboard the SLSDC's gatelifter, *Grasse River*.

The buoy barge upgrades were completed during the second half of FY 2013 at Basic Marine's shipyard in Escanaba, Mich., and included: replacing the deck crane, bow thruster engine, and generator; upgrading the bow thruster controls, heating system, points of access and egress, fire suppression system, and fuel system; and adding 80 tons of permanent ballast. Prior to the start of the work, the SLSDC incurred $41,000 in additional costs in towing the barge to the shipyard due to adverse weather and wind conditions.

The SLSDC's upgraded buoy barge, including a new deck crane, after returning from Basic Marine's shipyard in Escanaba, Mich.

Although the base contract was awarded in FY 2012, five contract modifications were issued to Basic Marine totaling $251,942 for additional work at their shipyard in Michigan, towing the barge back to the SLSDC's Marine Base in Massena, N.Y., and completing additional work and adjustments on site in Massena. This work is expected to be completed prior to the SLSDC's December 2013 buoy run and additional adjustments may be necessary in FY 2014.

In April 2013, the SLSDC awarded a contract to the naval architect and marine engineering firm Robert Allan Ltd., Vancouver, BC (large business; awarded to most highly qualified firm), for $58,640 to evaluate the replacement vs. rehabilitation options for the *Robinson Bay* and *Performance*. The SLSDC received the contractor's final reports on both tugs, which recommended replacement of both tugs, a more cost effective and longer lasting option.

Finally, the SLSDC continued to work with Continental Construction, LLC, Gouverneur, N.Y., on upgrades/improvements to equipment and operating systems on the *Grasse River*. Several contract modifications were issued to extend the completion date, which is expected in early FY 2014. The SLSDC anticipates performing an exercise with the *Grasse River* in the spring of 2014 to test the new upgrades and improvements.

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(9) 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 currently made with insulated ethylene propylene diene monomer (EPDM) and have reached the end of their 10-15 year service life. 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 2013 Request Estimate *(February 2012)*: $300,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $555,000

FY 2013 Obligations: $17,820

Damage to the SLSDC Eisenhower Lock Visitors' Center in early 2013 required exterior roof repairs and interior cleanup prior to opening to the general public in June 2013.

Total Obligations *(FYs 2009-2013)*: $254,141 (FYs 2009, 2011, 2012, and 2013)

Project Update *(as of September 30, 2013)*: In May 2013, the SLSDC awarded a contract for $12,043 to Ames Research Laboratories, Salem, Ore. (small business; simplified acquisition, award based on lowest price), for supplies to replace the roof at the Eisenhower Lock Visitors' Center. The damage was caused by winter weather conditions and the facility was unable to open on Memorial Day due to the damage. The repair work was completed by SLSDC staff and the Center re-opened in late June 2013.

(10) Project No. 16: Corporation Technologies – Upgrade GPS/AIS/TMS

General Description: This project is to expand the use of the Seaway's Global Positioning System (GPS) and Automatic Identification System (AIS) navigation technologies, which are incorporated into the Seaway's binational Traffic Management System (TMS). Future upgrades will further improve the safety of vessels transiting the Seaway. Use of these technologies particularly enables vessels to better identify hazards at times of limited visibility.

Type of Project: Capital Project / Capital Equipment

Mission Objective: Waterway Management

FY 2013 Request Estimate *(February 2012)*: $100,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $6,500

FY 2013 Obligations: $6,350

Total Obligations *(FYs 2009-2013)*: $190,470 (FYs 2009, 2010, 2012, and 2013)

Project Update *(as of September 30, 2013)*: In March 2013, the SLSDC entered into an interagency agreement with the Volpe National Transportation Systems Center, Cambridge, Mass. (government), for $6,350 for technical support to upgrade the buoy positioning and AIS equipment on the SLSDC tug *Performance*. The SLSDC and Volpe Center have partnered for more than 20 years on advancing AIS and GPS technologies to further enhance Seaway safety and efficiency.

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(11) 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 automated computerized systems through programmable logic controllers (PLCs) with redundant systems installed to replace the hard-wired backup controls. Adding control of all critical components will lead to more in-depth status monitoring 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 2013 Request Estimate *(February 2012)*: $0

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $85,000

FY 2013 Obligations: $76,722

Total Obligations *(FYs 2009-2013)*: $352,141 (FYs 2009, 2010, 2011, 2012, and 2013)

Project Update *(as of September 30, 2013)*: In FY 2013, the SLSDC continued to install the required infrastructure and to complete the programming for upgrading the lock control and lock/equipment monitoring system. Specifically, project efforts in FY 2013 included moving the controls for the ship arrestors at both U.S. Seaway locks to the new system.

Five contracts were awarded in FY 2013 for this project: (1) parts from Graybar Electric, Co., Syracuse, N.Y. for $7,543 (large business; GSA contract); (2 and 3) parts from Zeller Corporation, Rochester, N.Y. for $15,942 and $10,183 (small business; simplified acquisition, award based on lowest price); (4) field service engineer support from Schneider Electric Supply, North Andover, Mass., for $7,557 (small business; modification to earlier contract); and (5) parts from CAPP, Inc., Clifton Heights, Pa., for $4,141 (small business; simplified acquisition, award based on lowest price).

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(12) Project No. 26: Corporation Facilities – Upgrade Storage for Lock Spare Parts

General Description: This project is for constructing and/or upgrading storage buildings for lock spare parts and equipment to prevent corrosion. Many of these items are not stored under cover and/or are stored in old storage sheds that are in need of repair or replacement.

Type of Project: Capital Project

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

FY 2013 Request Estimate *(February 2012)*: $750,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $450,000

FY 2013 Obligations: $1,115,266

Total Obligations *(FYs 2009-2013)*: $1,545,410 (FYs 2010, 2011, and 2013)

Project Update *(as of September 30, 2013)*: In September 2013, the SLSDC awarded a contract for $1.1 million to Diverse Construction Group, LLC, Plessis, N.Y. (small business; sealed bidding, award based on lowest price, service disabled veteran owned business set-aside), to furnish and erect pre-engineered metal storage buildings at the

SLSDC's Marine Base/Maintenance facility. The two buildings are scheduled to be erected and usable by the summer of 2014.

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(13) Project No. 32: Snug Harbor – Rehabilitate Spare Gate Storage and Assembly Area

General Description: This project is for rehabilitating the spare miter gate storage and assembly area at Snug Harbor. The work will include repair of the spare gate assembly and storage infrastructure as well as blast cleaning and painting of the spare miter gates and gate assembly towers.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $300,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $1,000,000

FY 2013 Obligations: $2,099,934

Total Obligations *(FYs 2009-2013)*: $2,459,268 (FYs 2010, 2011, and 2013)

Project Update *(as of September 30, 2013)*: In September 2013, the SLSDC awarded two contracts related to the rehabilitation of the spare gate storage and assembly area, to include cleaning and painting the towers and spare gates. The rehabilitation work was awarded to Tower Maintenance Corporation, Sea Cliff, N.Y. (small, woman-owned business; sealed bidding, award based on lowest price), for $1.9 million. Additionally, the SLSDC awarded a contract for $211,898 to Lowe, Gravelle & Associates, Massena, N.Y. (small business; negotiated procurement, award based on best value using trade-off procedures), for inspection services during the rehabilitation work. The work began in the fall of 2013 and is expected to be completed in early November 2014.

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(14) Project No. 33: Both Locks – Upgrade Drainage Infrastructure in Galleries and Recesses

General Description: This project is to open existing drains or to drill new drains in the galleries and machinery recesses at both Eisenhower and Snell Locks. The drains are being filled up with concrete leachate products which slow and/or stop the drains and cause flooding of the galleries and machinery recesses.

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

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $160,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $150,000

FY 2013 Obligations: $6,938

Total Obligations *(FYs 2009-2013)*: $6,938 (FY 2013)

Project Update *(as of September 30, 2013)*: Due to funding availability and other priority ARP projects, the SLSDC deferred the cleaning of the drains at the two U.S. Seaway locks until FY 2014. There were some minor expenses incurred in FY 2013 related to drainage inspections, repairs, supplies, and parts.

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(15) 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 and for installing an emergency generator at the SLSDC's Maintenance facility. The generators at the locks are over 20 years old and cannot carry the total load. Installing an emergency generator at the Maintenance facility with an automatic transfer switch will enable maintenance activities to continue and will insure that water lines will not freeze and break in the event of a power outage.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $500,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $500,000

FY 2013 Obligations: $1,764,008

Total Obligations *(FYs 2009-2013)*: $1,764,008 (FY 2013)

Project Update *(as of September 30, 2013)*: The SLSDC awarded a contract to Collins-Hammond Electrical Contractors, Ogdensburg, N.Y. (small business; sealed bidding, award based on lowest price), for $1.8 million to replace the emergency generators and transformers at both U.S. Seaway locks. Work is scheduled to begin in early FY 2014 and is expected to be completed in the summer of 2014.

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

General Description: This project replaces the pumps used for dewatering both the U.S. Seaway 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 2013 Request Estimate *(February 2012)*: $200,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $5,000

FY 2013 Obligations: $25,721

Total Obligations *(FYs 2009-2013)*: $215,484 (FYs 2012 and 2013)

Project Update *(as of September 30, 2013)*: In FY 2012, the SLSDC completed a replacement vs. rebuild analysis for the dewatering pumps at the U.S. Seaway locks and concluded it is more cost effective to rebuild the larger pumps and replace the smaller ones.

The SLSDC awarded a contract in FY 2012 to Rolfe Industries, Inc., Clifton Park, N.Y., for the rehabilitation/rebuild of four large dewatering pumps. During FY 2013, two pumps were rebuilt by the contractor and reinstalled by SLSDC staff and a third pump was removed for rebuilding. That pump is expected back in early FY 2014 and will be operational at the end of the 2013 navigation season. Two contract modifications were issued to Rolfe Industries totaling $11,189 for additional work on pump motors. The SLSDC also awarded a contract to J.L. Moore, Inc., Orchard Park, N.Y. (small business; simplified acquisition, award based on lowest price), for $11,210 to fabricate a pump valve.

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(17) 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 2013 Request Estimate *(February 2012)*: $3,000,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $1,100,000

FY 2013 Obligations: $1,577,272

Total Obligations *(FYs 2009-2013)*: $13,326,565 (FYs 2011, 2012, and 2013)

View of the new ice flushing system installation in the Snell Lock chamber in February 2013.

Project Update *(as of September 30, 2013)*: During the winter months of 2013, Hohl Industrial Services, Tonawanda, N.Y., completed the installation of the ice flushing pipes at Snell Lock *(see page 4)*.

Although the base contract was awarded in FY 2013, the SLSDC issued three contract modifications with Hohl Industrial Services totaling $1.2 million for the completion of the installation. Additionally, the SLSDC issued a contract totaling $310,720 with Stantec Consulting Services, Inc., Rochester, N.Y. (large business; negotiated procurement, award based on best value using trade off procedures), for inspection and testing services for the system installation.

During the testing and commissioning of the new system in 2013, several complications were observed, including system vibrations and issues with the valves when being closed during the flushing procedure. The SLSDC concluded that it was not prudent to operate the new system until the issues were resolved. The SLSDC continues to work with the contractor and the design engineers to resolve these system issues.

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(18) Project No. 42: Both Locks – Miter Gates – Structural Rehabilitation

General Description: This project is to blast clean, repair, and paint the miter gates at both U.S. Seaway locks to prevent further corrosion of these structures. They were last cleaned and painted 30 years ago.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $765,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $2,000,000

FY 2013 Obligations: $2,898,819

Total Obligations *(FYs 2009-2013)*: $2,899,029 (FYs 2012 and 2013)

Project Update *(as of September 30, 2013)*: In September 2013, the SLSDC awarded a contract to Abhe & Svoboda, Inc. Prior Lake, Minn. (large business; sealed bidding, award based on lowest price), for $2.9 million to blast clean and paint the upstream and downstream miter gates at Eisenhower Lock. The work will be completed during winter work in early 2014.

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(19) Project No. 51: Corporation Facilities – Upgrade Physical Security to Meet HSPD-12 Requirements

General Description: This project is for procuring the Personal Identity Verification (PIV) cards issued by the U.S. Department of Transportation as well as the necessary card readers and other required infrastructure to meet Homeland Security Presidential Directive (HSPD)-12 requirements.

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

Mission Objective: Facility-Equipment Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $50,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $25,000

FY 2013 Obligations: $20,143

Total Obligations *(FYs 2009-2013)*: $417,770 (FYs 2010, 2011, 2012, and 2013)

Project Update *(as of September 30, 2013)*: In late FY 2012, the SLSDC awarded a series of contracts to upgrade the SLSDC's physical security and access system in Massena, N.Y., to meet HSPD-12 requirements, including physical access capability using PIV cards. In April 2013, work commenced on the system upgrades and it is expected to be completed and operational in early FY 2014. The SLSDC continues to work closely with DOT officials to ensure continuity between the new system and the Department's current PIV security and authentication systems.

(20) 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 by more than 50,000 people and is an important attraction for Upstate New York tourism. The Center provides historical displays on 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 to the disabled.

Type of Project: Capital Project

Mission Objective: Facility-Equipment Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $300,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $280,000

FY 2013 Obligations: $298,391

Total Obligations *(FYs 2009-2013)*: $311,433 (FYs 2011 and 2013)

Project Update *(as of September 30, 2013)*: In FY 2013, the SLSDC modified a previous task order with one of its IDC A/E firms, Aubertine and Currier, Watertown, N.Y., for $298,362 to prepare designs, specifications, drawings, and cost estimates for the Eisenhower Lock Visitors' Center. Previous third-party evaluations concluded that Center replacement is more cost effective than refurbishment and would improve safety, disabled accessibility, and operations, and enhance security. The contractor worked with SLSDC officials throughout FY 2013 to develop a two-phase design approach: Phase 1 will include a new security/restroom facility that can complement either a new or refurbished main Center facility; and Phase 2 will be a new multi-purpose Visitors' Center facility. Phase 1 work is expected to be awarded in early FY 2014 for completion in late summer 2014.

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(21) Project No. 57: Corporation Technologies – Upgrade Network Security

General Description: This project enhances and improves the SLSDC's IT network infrastructure and security in Massena, N.Y. The growth of more technology-based ARP improvements is resulting in an increased need to expand and refine the SLSDC's network environment. The SLSDC is working closely with DOT's Office of the Chief Information Officer to coordinate and make these improvements.

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

Mission Objective: Facility-Equipment Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $0

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $8,500

FY 2013 Obligations: $8,687

Total Obligations *(FYs 2009-2013)*: $184,221 (FYs 2011, 2012, and 2013)

Project Update *(as of September 30, 2013)*: The SLSDC continues to make systematic improvements to its IT network environment in Massena, N.Y. In FY 2013, the SLSDC awarded a contract to Unicom Government, Inc., Herndon, Va. (large business; Federal Aviation Administration's (FAA) SAVES[6] program), for $8,687 for new server hardware for the Massena network. The SLSDC works with DOT's Office of the Chief Information Officer technical staff to ensure conformity with Departmental IT security and networking configurations.

In addition, the SLSDC continued to work in FY 2013 with Time Warner Cable on a fiber project to provide redundancy. Early in the fiscal year, the fiber for the SLSDC's new telephone system was installed into the Administration Building.

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

General Description: This project implements the recommendations of two consultant-led initiatives: an energy/water conservation audit and a retro-commissioning study. These upgrades will be made to meet the sustainability requirements of various federal executive orders and laws.

Type of Project: Capital Project

Mission Objective: Facility-Equipment Upgrade and Maintenance

FY 2013 Request Estimate *(February 2012)*: $200,000

FY 2013 Adjusted Internal Spending Plan *(April 2013)*: $53,400

FY 2013 Obligations: $8,180

Total Obligations *(FYs 2009-2013)*: $112,727 (FYs 2011, 2012, and 2013)

[6] The "Strategic Sourcing for the Acquisition of Various Equipment and Supplies" (SAVES) program is a mandatory agency source for a variety of technology equipment and office supplies. The SAVES initiative is part of the DOT's goal to control costs by standardizing technology, consolidating buying, and monitoring IT spending.

Project Update *(as of September 30, 2013)*: In FY 2013, the SLSDC continued to make recommended upgrades as part of its multi-year retro-commissioning project for its Administration Building in Massena, N.Y. There were supplies purchased and drawdowns on inventory associated with this project totaling $7,692, primarily for lighting upgrades in the Compressor Buildings, Maintenance Building, and lock galleries.

SLSDC ARP Obligations (FYs 2009-2013)

ARP #	ARP Project Description	ARP FY 2009 Obligations (Year 1)	ARP FY 2010 Obligations (Year 2)	ARP FY 2011 Obligations (Year 3)	ARP FY 2012 Obligations (Year 4)	ARP FY 2013 Obligations (Year 5)	Five-Year Obligation Totals
1	Snell Lock - Replace Fendering Downstream Guidewall Extension	$241,600	$8,091	$0	$0	$0	$249,691
2	Both Locks - Rehabilitate Downstream Miter Gates	$0	$0	$3,539,935	$8,384	$3,009,854	$6,558,173
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	(Comb. w/ No. 14	$35,422	$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	$9,170,537
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	$46,698	$6,638	$23,781	$28,335	$27,906	$133,358
6	Seaway International Bridge – Perform Structural Rehabilitation and Corrosion Prevention	$3,102,878	$5,680,707	$0	$0	$0	$8,783,585
7	Both Locks - Culvert Valves - Replace With Single Skin Valves	$0	$326,898	$65,591	$302,468	$162	$695,119
8	Floating Navigational Aids - Replace	$61,254	$54,576	$0	$0	$31,434	$147,264
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles, and Shop Equipment	$1,574,504	$481,052	$108,038	$81,623	$137,393	$2,382,610
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	$389,578
11	Fixed Navigational Aids - Rehabilitate	$0	$10,998	$16,217	$21,048	$29,210	$77,473
12	Corporation Equipment - Upgrade/Replace Floating Plant	$678,745	$1,627,925	$1,908,563	$2,160,169	$860,413	$7,235,815
13	Corporation Facilities - Replace Roofs	$143,949	$0	$3,348	$89,024	$17,820	$254,141
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	$921,837	$1,829,621	$85,481	$0	$0	$2,836,939
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	$26,636	$271,804	$99,459	$1,523	$0	$399,422
16	Corporation Technologies - Upgrade GPS/AIS/TMS	$100,997	$76,451	($3,328)	$10,000	$6,350	$190,470
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	$4,279,556	$0	$3,662,267	$99,714	$100	$8,041,637
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	$0	$487,750	$109,490	$268,549	$0	$865,789
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	$0	$753,400	$306,847	$41,304	$1,465	$1,103,016
20	Both Locks - Upgrade Lock Status/Controls	$8,558	$139,805	$89,507	$37,549	$76,722	$352,141
21	Both Locks - Compressed Air Systems - Upgrade/Replace	$19,878	$787,549	$3,381	$986	$0	$811,794
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	$37,561	$0	$0	$0	$0	$37,561
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	$4,148	$0	$4,007	$0	$0	$8,155
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	$0	$418,000	$12,144	$0	$1,115,266	$1,545,410
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	$0	$33,776	$5,537	$8,070	$167	$47,550
29	Eisenhower Lock - Walls, Sills, and Culverts - Rehabilitate Concrete	$0	$209,395	$0	$0	$0	$209,395
31	Both Locks - Rehabilitate Upstream Miter Gates	$2,201,585	$2,478,896	$347,662	$14,961	($750)	$5,042,354
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	$0	$12,734	$346,600	$0	$2,099,934	$2,459,268
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	$0	$0	$0	$0	$6,938	$6,938
34	Both Locks - Improve Ice Control	$0	$7,462	$0	$0	$0	$7,462
38	Both Locks - Upgrade/Replace Emergency Generators	$0	$0	$0	$0	$1,764,008	$1,764,008
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	$0	$0	$0	$189,763	$25,721	$215,484
41	Snell Lock - Install Ice Flushing System Technologies	$0	$0	$272,000	$11,477,293	$1,577,272	$13,326,565
42	Both Locks - Miter Gates - Structural Rehabilitation	$0	$0	$0	$210	$2,898,819	$2,899,029
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	$0	$0	$133,364	$1,207	$505	$135,076
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	$0	$24,183	$21,097	$352,347	$20,143	$417,770
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	$0	$0	$13,042	$0	$298,391	$311,433
54	Corporation Facilities - Administration Building - Replace Elevator	$0	$0	$140,346	$0	$0	$140,346
55	Corporation Facilities - Maintenance Building - Replace Fuel Tanks	$0	$0	$189,350	$2,350	$0	$191,700
56	Corporation Facilities - Duth Free Store Property - Upgrade Security	$0	$0	$13,025	$0	$0	$13,025
57	Corporation Facilities - Upgrade Network Security	$0	$0	$158,536	$16,998	$8,687	$184,221
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	$0	$0	$47,511	$57,036	$8,180	$112,727
--	Miscellaneous Expenses	$0	$443	$1,700	$0	$0	$2,143
	Asset Renewal Program Total	**$17,587,028**	**$16,339,760**	**$15,783,116**	**$15,838,803**	**$14,242,887**	**$79,791,594**

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, and $674,000 in personnel compensation from its "Agency Operations" program for staff time associated with ARP work in FYs 2009, 2010, 2011, 2012, and 2013, 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 2009-2013)

ARP Project No.	ARP Project Title	Total Project Cost *(Actual)*	FY 2009 ARP/CIP Estimate *(02-04-08)*	FY 2009 Congressional Request *(02-04-08)*	FY 2009 Enacted *(03-11-09)*	FY 2009 Internal Spending Plan *(04-10-09)*	FY 2009 Obligations (Actual) *(09-30-09)*	FY 2010 ARP/CIP Estimate *(02-04-08)*	FY 2010 Congressional Request *(05-07-09)*	FY 2010 Enacted *(12-16-09)*	FY 2010 Internal Spending Plan *(03-15-10)*	FY 2010 Obligations (Actual) *(09-30-10)*
			FY 2009					**FY 2010**				
1	Both Locks - Replace Fendering on Approach Walls (Renamed in 2013 to include both locks)	**$249,691**	$300,000	$300,000	$300,000	$300,000	**$241,600**	---	---	---	$10,000	**$8,091**
2	Both Locks - Rehabilitate Downstream Miter Gates	**$6,558,173**	$1,500,000	$1,500,000	$1,500,000	---	**---**	$1,500,000	$1,508,000	$1,508,000	---	---
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	**$35,422**	$250,000	$250,000	$250,000	*(Comb. w/ No. 14)*	***(Comb. w/ No.14)***	$250,000	$251,000	$251,000	---	**$35,422**
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	**$9,170,537**	$2,000,000	$2,000,000	$2,000,000	$2,000,000	**$4,117,050**	---	---	---	$325,000	**$344,915**
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	**$133,358**	$250,000	$250,000	$250,000	$250,000	**$46,698**	---	---	---	$5,000	**$6,638**
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	**$8,783,585**	$2,000,000	$2,000,000	$2,000,000	$2,000,000	**$3,102,878**	$5,600,000	$5,773,000	$5,773,000	$4,500,000	**$5,680,707**
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	**$695,119**	$600,000	$600,000	$600,000	$600,000	**---**	$600,000	$603,000	$603,000	$297,000	**$326,898**
8	Floating Navigational Aids - Replace	**$147,264**	$60,000	$60,000	$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	**$2,382,610**	$1,750,000	$1,750,000	$1,750,000	$1,750,000	**$1,574,504**	$250,000	$251,000	$251,000	$235,000	**$481,052**
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	**$389,578**	$75,000	$75,000	$75,000	$75,000	**$19,594**	$75,000	$75,000	$75,000	$100,000	**$231,269**
11	Fixed Navigational Aids - Rehabilitate	**$77,473**	$100,000	$100,000	$100,000	$100,000	**---**	$200,000	$201,000	$201,000	$10,000	**$10,998**
12	Corporation Equipment - Upgrade/Replace Floating Plant/Tugs	**$7,235,815**	$2,000,000	$2,000,000	$2,000,000	$2,000,000	**$678,745**	$500,000	$503,000	$503,000	$1,845,000	**$1,627,925**
13	Corporation Facilities - Replace Roofs	**$254,141**	$50,000	$50,000	$50,000	$50,000	**$143,949**	---	---	---	---	**---**
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	**$2,836,939**	$950,000	$950,000	$950,000	$1,200,000	**$921,837**	---	$1,508,000	$1,508,000	$1,000,000	**$1,829,621**
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	**$399,422**	$250,000	$250,000	$250,000	$250,000	**$26,636**	---	---	---	$275,000	**$271,804**
16	Corporation Technologies - Upgrade GPS/AIS/TMS	**$190,470**	$100,000	$100,000	$100,000	$100,000	**$100,997**	---	---	---	---	**$76,451**
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	**$8,041,637**	$5,000,000	$5,000,000	$5,000,000	$5,000,000	**$4,279,556**	---	---	---	---	**---**
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	**$865,789**	---	---	---	---	**---**	$500,000	$503,000	$503,000	$500,000	**$487,750**
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	**$1,103,016**	---	---	---	---	**---**	$150,000	$151,000	$151,000	$150,000	**$753,400**
20	Both Locks - Upgrade Lock Status/Controls	**$352,141**	---	---	---	---	**$8,558**	$150,000	$151,000	$151,000	$200,000	**$139,805**
21	Both Locks - Compressed Air Systems - Upgrade/Replace	**$811,794**	---	---	---	---	**$19,878**	$1,500,000	$1,508,000	$1,508,000	$1,500,000	**$787,549**
22	Both Locks - Install Vessel Self Spotting Equipment	**---**	---	---	---	---	**---**	$250,000	$251,000	$251,000	---	**---**
23	Both Locks - Install Vessel Vacuum Mooring Systems	**---**	---	---	---	---	**---**	$1,650,000	---	---	---	**---**
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	**$37,561**	---	---	---	---	**$37,561**	$200,000	$201,000	$201,000	---	**---**
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	**$8,155**	---	---	---	---	**$4,148**	$100,000	$101,000	$101,000	$5,000	**---**
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	**$1,545,410**	---	---	---	---	**---**	$200,000	$201,000	$201,000	$200,000	**$418,000**
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	**$47,550**	---	---	---	---	**---**	$200,000	$201,000	$201,000	$200,000	**$33,776**
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	**---**	---	---	---	---	**---**	---	---	---	---	**---**
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	**$209,395**	---	---	---	---	**---**	$2,000,000	$2,010,000	$2,010,000	$2,000,000	**$209,395**
30	Eisenhower Lock - Ice Flushing System - Upgrade	**---**	---	---	---	---	**---**	---	---	---	---	**---**
31	Both Locks - Rehabilitate Upstream Miter Gates	**$5,042,354**	---	---	---	$1,500,000	**$2,201,585**	---	---	---	$2,800,000	**$2,478,896**
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	**$2,459,268**	---	---	---	---	**---**	---	---	---	---	**$12,734**
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	**$6,938**	---	---	---	---	**---**	---	---	---	---	**---**
34	Both Locks - Improve Ice Control	**$7,462**	---	---	---	---	**---**	---	---	---	---	**$7,462**
35	Vessel Mooring Cells - Rehabilitate and Extend	**---**	---	---	---	---	**---**	---	---	---	---	**---**
36	Eisenhower Lock - Diffusers - Replace	**---**	---	---	---	---	**---**	---	---	---	---	**---**
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	**---**	---	---	---	---	**---**	---	---	---	---	**---**
38	Both Locks - Upgrade/Replace Emergency Generators	**$1,764,008**	---	---	---	---	**---**	---	---	---	---	**---**
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	**$215,484**	---	---	---	---	**---**	---	---	---	---	**---**
40	Both Locks - Extend Guidewalls in Pool	**---**	---	---	---	---	**---**	---	---	---	---	**---**
41	Snell Lock - Install Ice Flushing System Technologies	**$13,326,565**	---	---	---	---	**---**	---	---	---	$100,000	**---**
42	Both Locks - Miter Gates - Structural Rehabilitation	**$2,899,029**	---	---	---	---	**---**	---	---	---	---	**---**
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	**$135,076**	---	---	---	---	**---**	---	---	---	---	**---**
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	**---**	---	---	---	---	**---**	---	---	---	---	**---**
45	Flow Control Dikes - Rehabilitate	**---**	---	---	---	---	**---**	---	---	---	---	**---**
46	Both Locks - Guidewall Extensions - Rehabilitate	**---**	---	---	---	---	**---**	---	---	---	---	**---**
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	**---**	---	---	---	---	**---**	---	---	---	---	**---**
48	Both Locks - Stiffleg Derricks - Replace	**---**	---	---	---	---	**---**	---	---	---	---	**---**
49	Seaway International Bridge - Replace Deck	**---**	---	---	---	---	**---**	---	---	---	---	**---**
50	Snell Lock - Diffusers - Replace	**---**	---	---	---	---	**---**	---	---	---	---	**---**
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	**$417,770**	---	---	---	---	**---**	---	---	---	---	**$24,183**
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	**$311,433**	---	---	---	---	**---**	---	---	---	---	**---**
53	Corporation Technologies - Financial Management System - Upgrade/Replace	**---**	---	---	---	---	**---**	---	---	---	---	**---**
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	**$112,727**	---	---	---	---	**---**	---	---	---	---	**---**
59	Corporation Facilities - Communications Improvements	**---**	---	---	---	---	**---**	---	---	---	---	**---**
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	**---**	---	---	---	---	**---**	---	---	---	---	**---**
61	Both Locks - Replace Recess Covers on Lock Walls	**---**	---	---	---	---	**---**	---	---	---	---	**---**
---	Engineering Design, Construction Inspection, Contracting Support, and Project Management		$300,000	$300,000	$300,000	$300,000	***[$608,769]***	$300,000	$306,000	$306,000	---	**---**
---	Miscellaneous Expenses	**$2,143**	---	---	---	---	**---**	---	---	---	---	**$443**
	Total	**$79,791,594**	$17,535,000	$17,535,000	$17,535,000	$17,535,000	**$17,587,028**	$16,235,000	$16,317,000	$16,317,000	$16,317,000	**$16,339,760**

ARP Funding Summary (FYs 2009-2013)

ARP Project No.	ARP Project Title	Total Project Cost *(Actual)*	FY 2011 ARP/CIP Estimate *(05-07-09)*	FY 2011 Congressional Request *(02-01-10)*	FY 2011 Enacted *(04-15-11)*	FY 2011 Internal Spending Plan *(04-22-11)*	FY 2011 Obligations (Actual) *(09-30-11)*	FY 2012 ARP/CIP Estimate *(02-01-10)*	FY 2012 Congressional Request *(02-14-11)*	FY 2012 Enacted *(12-23-11)*	FY 2012 Internal Spending Plan *(12-30-11)*	FY 2012 Obligations (Actual) *(09-30-12)*
			FY 2011					**FY 2012**				
1	Both Locks - Replace Fendering on Approach Walls (Renamed in 2013 to include both locks)	**$249,691**	---	$10,000	$10,000	---	**---**	---	---	---	---	**---**
2	Both Locks - Rehabilitate Downstream Miter Gates	**$6,558,173**	$1,515,000	$4,250,000	$4,250,000	$4,250,000	**$3,539,935**	$4,380,000	$4,380,000	$4,380,000	$2,700,000	**$8,384**
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	**$35,422**	$253,000	---	---	---	**---**	---	---	---	$200,000	**---**
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	**$9,170,537**	$2,020,000	$4,500,000	$4,500,000	$4,500,000	**$3,965,005**	---	---	---	$180,000	**$539,889**
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	**$133,358**	$253,000	---	---	---	**$23,781**	$258,000	$258,000	$258,000	$25,000	**$28,335**
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	**$8,783,585**	$4,666,000	$3,466,000	$3,466,000	$3,066,000	**---**	---	---	---	---	**---**
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	**$695,119**	$606,000	$300,000	$300,000	$300,000	**$65,591**	$305,000	$405,000	$405,000	$300,000	**$302,468**
8	Floating Navigational Aids - Replace	**$147,264**	$61,000	$61,000	$61,000	$61,000	**---**	$61,000	$61,000	$61,000	$60,000	**---**
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	**$2,382,610**	$253,000	$100,000	$100,000	$100,000	**$108,038**	$254,000	$255,000	$255,000	$100,000	**$81,623**
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	**$389,578**	$76,000	$50,000	$50,000	$50,000	**$93,613**	$20,000	$20,000	$20,000	$40,000	**$28,003**
11	Fixed Navigational Aids - Rehabilitate	**$77,473**	$202,000	$100,000	$100,000	$100,000	**$16,217**	$203,000	$100,000	$100,000	$100,000	**$21,048**
12	Corporation Equipment - Upgrade/Replace Floating Plant/Tugs	**$7,235,815**	$505,000	$505,000	$505,000	$505,000	**$1,908,563**	$1,524,000	$1,524,000	$1,524,000	$2,335,000	**$2,160,169**
13	Corporation Facilities - Replace Roofs	**$254,141**	$91,000	$130,000	$130,000	$130,000	**$3,348**	$230,000	$230,000	$230,000	$40,000	**$89,024**
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	**$2,836,939**	$1,515,000	$750,000	$750,000	---	**$85,481**	---	---	---	---	**---**
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	**$399,422**	$253,000	$650,000	$650,000	$650,000	**$99,459**	---	---	---	---	**$1,523**
16	Corporation Technologies - Upgrade GPS/AIS/TMS	**$190,470**	$101,000	$50,000	$50,000	$50,000	**-$3,328**	---	---	---	---	**$10,000**
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	**$8,041,637**	---	---	---	$770,000	**$3,662,267**	---	---	---	---	**$99,714**
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	**$865,789**	---	---	---	---	**$109,490**	---	---	---	$250,000	**$268,549**
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	**$1,103,016**	$152,000	$150,000	$150,000	---	**$306,847**	$500,000	$400,000	$400,000	$400,000	**$41,304**
20	Both Locks - Upgrade Lock Status/Controls	**$352,141**	$152,000	$75,000	$75,000	$75,000	**$89,507**	---	---	---	---	**$37,549**
21	Both Locks - Compressed Air Systems - Upgrade/Replace	**$811,794**	$1,515,000	---	---	---	**$3,381**	---	---	---	$15,000	**$986**
22	Both Locks - Install Vessel Self Spotting Equipment	**---**	$253,000	---	---	---	**---**	---	---	---	---	**---**
23	Both Locks - Install Vessel Vacuum Mooring Systems	**---**	---	---	---	---	**---**	---	---	---	---	**---**
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	**$37,561**	---	---	---	---	**---**	$203,000	$203,000	$203,000	$100,000	**---**
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	**$8,155**	---	---	---	---	**$4,007**	---	---	---	---	**---**
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	**$1,545,410**	---	---	---	---	**$12,144**	$203,000	$203,000	$203,000	---	**---**
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	**$47,550**	---	---	---	---	**$5,537**	$203,000	$203,000	$203,000	$50,000	**$8,070**
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	**---**	$2,020,000	---	---	---	**---**	---	---	---	---	**---**
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	**$209,395**	---	---	---	---	**---**	$2,030,000	---	---	---	**---**
30	Eisenhower Lock - Ice Flushing System - Upgrade	**---**	$202,000	---	---	---	**---**	---	---	---	---	**---**
31	Both Locks - Rehabilitate Upstream Miter Gates	**$5,042,354**	---	---	---	---	**$347,662**	---	---	---	---	**$14,961**
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	**$2,459,268**	$253,000	$253,000	$253,000	$253,000	**$346,600**	$254,000	$254,000	$254,000	$250,000	**---**
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	**$6,938**	$152,000	---	---	---	**---**	$152,000	$152,000	$152,000	$100,000	**---**
34	Both Locks - Improve Ice Control	**$7,462**	$101,000	$100,000	$100,000	$100,000	**---**	$228,000	$228,000	$228,000	---	**---**
35	Vessel Mooring Cells - Rehabilitate and Extend	**---**	$1,010,000	$100,000	$100,000	$100,000	**---**	---	---	---	---	**---**
36	Eisenhower Lock - Diffusers - Replace	**---**	---	---	---	---	**---**	$3,045,000	$3,045,000	$3,045,000	---	**---**
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	**---**	---	---	---	---	**---**	---	---	---	---	**---**
38	Both Locks - Upgrade/Replace Emergency Generators	**$1,764,008**	---	---	---	---	**---**	$508,000	$508,000	$508,000	$100,000	**---**
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	**$215,484**	---	---	---	---	**---**	$203,000	$203,000	$203,000	$200,000	**$189,763**
40	Both Locks - Extend Guidewalls in Pool	**---**	---	---	---	---	**---**	---	---	---	---	**---**
41	Snell Lock - Install Ice Flushing System Technologies	**$13,326,565**	---	---	---	$400,000	**$272,000**	$5,075,000	$2,000,000	$2,000,000	$6,705,000	**$11,477,293**
42	Both Locks - Miter Gates - Structural Rehabilitation	**$2,899,029**	---	---	---	---	**---**	$761,000	$761,000	$761,000	$750,000	**$210**
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	**$135,076**	---	---	---	---	**$133,364**	---	$1,632,000	$1,632,000	---	**$1,207**
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	**---**	---	---	---	---	**---**	---	---	---	---	**---**
45	Flow Control Dikes - Rehabilitate	**---**	---	---	---	---	**---**	---	---	---	---	**---**
46	Both Locks - Guidewall Extensions - Rehabilitate	**---**	---	---	---	---	**---**	---	---	---	---	**---**
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	**---**	---	---	---	---	**---**	---	---	---	---	**---**
48	Both Locks - Stiffleg Derricks - Replace	**---**	---	---	---	---	**---**	---	---	---	---	**---**
49	Seaway International Bridge - Replace Deck	**---**	---	---	---	---	**---**	---	---	---	---	**---**
50	Snell Lock - Diffusers - Replace	**---**	---	---	---	---	**---**	---	---	---	---	**---**
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	**$417,770**	---	$100,000	$100,000	$100,000	**$21,097**	$50,000	$50,000	$50,000	$300,000	**$352,347**
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	**$311,433**	---	---	---	---	**$13,042**	---	---	---	---	**---**
53	Corporation Technologies - Financial Management System - Upgrade/Replace	**---**	---	---	---	---	**---**	---	---	---	---	**---**
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	**$112,727**	---	---	---	---	**$47,511**	---	---	---	$50,000	**$57,036**
59	Corporation Facilities - Communications Improvements	**---**	---	---	---	---	**---**	---	---	---	---	**---**
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	**---**	---	---	---	---	**---**	---	---	---	---	**---**
61	Both Locks - Replace Recess Covers on Lock Walls	**---**	---	---	---	---	**---**	---	---	---	---	**---**
---	Engineering Design, Construction Inspection, Contracting Support, and Project Management		$312,000	---	---	---	**---**	---	---	---	---	**---**
---	Miscellaneous Expenses	**$2,143**	---	---	---	---	**$1,700**	---	---	---	---	**---**
	Total	**$79,791,594**	$18,492,000	$15,700,000	$15,700,000	$15,700,000	**$15,783,116**	$20,650,000	$17,075,000	$17,075,000	$15,600,000	**$15,838,803**

ARP Funding Summary (FYs 2009-2013)

ARP Project No.	ARP Project Title	Total Project Cost *(Actual)*	FY 2013				
			FY 2013 ARP/CIP Estimate *(02-14-11)*	FY 2013 Congressional Request *(02-13-12)*	FY 2013 Enacted *(03-26-13)*	FY 2013 Internal Spending Plan *(04-01-13)*	FY 2013 Obligations (Actual) *(09-30-13)*
1	Both Locks - Replace Fendering on Approach Walls (Renamed in 2013 to include both locks)	**$249,691**	---	---	---	---	---
2	Both Locks - Rehabilitate Downstream Miter Gates	**$6,558,173**	---	$230,000	$3,032,500	$3,032,500	**$3,009,854**
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	**$35,422**	---	$100,000	$100,000	$100,000	---
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	**$9,170,537**	---	---	$207,000	$207,000	**$203,678**
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	**$133,358**	---	$200,000	$150,000	$150,000	**$27,906**
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	**$8,783,585**	---	---	---	---	---
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	**$695,119**	$406,000	$420,000	$350,000	$350,000	**$162**
8	Floating Navigational Aids - Replace	**$147,264**	$61,000	$65,000	$30,000	$30,000	**$31,434**
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	**$2,382,610**	$255,000	$260,000	$375,000	$492,000	**$137,393**
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	**$389,578**	$20,000	$20,000	$20,000	$20,000	**$17,099**
11	Fixed Navigational Aids - Rehabilitate	**$77,473**	$204,000	$200,000	$35,000	$35,000	**$29,210**
12	Corporation Equipment - Upgrade/Replace Floating Plant/Tugs	**$7,235,815**	---	$400,000	$575,000	$575,000	**$860,413**
13	Corporation Facilities - Replace Roofs	**$254,141**	$300,000	$300,000	$555,000	$555,000	**$17,820**
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	**$2,836,939**	$1,530,000	$900,000	$440,600	$323,600	---
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	**$399,422**	$255,000	$750,000	---	---	---
16	Corporation Technologies - Upgrade GPS/AIS/TMS	**$190,470**	$102,000	$100,000	$6,500	$6,500	**$6,350**
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	**$8,041,637**	---	---	$50,000	$50,000	**$100**
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	**$865,789**	---	---	---	---	---
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	**$1,103,016**	---	---	$1,500	$1,500	**$1,465**
20	Both Locks - Upgrade Lock Status/Controls	**$352,141**	---	---	$85,000	$85,000	**$76,722**
21	Both Locks - Compressed Air Systems - Upgrade/Replace	**$811,794**	---	---	$15,000	$15,000	---
22	Both Locks - Install Vessel Self Spotting Equipment	---	---	$500,000	$400,000	$400,000	---
23	Both Locks - Install Vessel Vacuum Mooring Systems	---	---	---	---	---	---
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	**$37,561**	---	---	$100,000	$100,000	---
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	**$8,155**	---	---	---	---	---
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	**$1,545,410**	---	$750,000	$450,000	$450,000	**$1,115,266**
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	**$47,550**	---	---	---	---	**$167**
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	---	$2,040,000	---	---	---	---
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	**$209,395**	---	$2,000,000	$1,700,000	$1,700,000	---
30	Eisenhower Lock - Ice Flushing System - Upgrade	---	---	---	---	---	---
31	Both Locks - Rehabilitate Upstream Miter Gates	**$5,042,354**	---	---	---	---	**-$750**
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	**$2,459,268**	$255,000	$300,000	$1,000,000	$1,000,000	**$2,099,934**
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	**$6,938**	$153,000	$160,000	$150,000	$150,000	**$6,938**
34	Both Locks - Improve Ice Control	**$7,462**	$230,000	$230,000	---	---	---
35	Vessel Mooring Cells - Rehabilitate and Extend	---	$1,020,000	$500,000	$200,000	$200,000	---
36	Eisenhower Lock - Diffusers - Replace	---	---	---	---	---	---
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	---	---	---	---	---	---
38	Both Locks - Upgrade/Replace Emergency Generators	**$1,764,008**	$510,000	$500,000	$500,000	$500,000	**$1,764,008**
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	**$215,484**	$204,000	$200,000	$5,000	$5,000	**$25,721**
40	Both Locks - Extend Guidewalls in Pool	---	$1,530,000	---	---	---	---
41	Snell Lock - Install Ice Flushing System Technologies	**$13,326,565**	$5,103,000	$3,000,000	$1,100,000	$1,100,000	**$1,577,272**
42	Both Locks - Miter Gates - Structural Rehabilitation	**$2,899,029**	$765,000	$765,000	$2,000,000	$2,000,000	**$2,898,819**
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	**$135,076**	---	$2,600,000	---	---	**$505**
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	---	---	---	---	---	---
45	Flow Control Dikes - Rehabilitate	---	---	---	---	---	---
46	Both Locks - Guidewall Extensions - Rehabilitate	---	---	---	---	---	---
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	---	---	---	---	---	---
48	Both Locks - Stiffleg Derricks - Replace	---	---	---	---	---	---
49	Seaway International Bridge - Replace Deck	---	---	---	---	---	---
50	Snell Lock - Diffusers - Replace	---	---	---	---	---	---
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	**$417,770**	$50,000	$50,000	$25,000	$25,000	**$20,143**
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	**$311,433**	$5,000,000	$300,000	$280,000	$280,000	**$298,391**
53	Corporation Technologies - Financial Management System - Upgrade/Replace	---	---	---	---	---	---
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	$8,500	**$8,687**
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	**$112,727**	---	$200,000	$53,400	$53,400	**$8,180**
59	Corporation Facilities - Communications Improvements	---	---	---	---	---	---
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	---	---	---	---	---	---
61	Both Locks - Replace Recess Covers on Lock Walls	---	---	---	---	---	---
---	Engineering Design, Construction Inspection, Contracting Support, and Project Management		---	---	---	---	---
---	Miscellaneous Expenses	**$2,143**	---	---	---	---	---
	Total	**$79,791,594**	$19,993,000	$16,000,000	$14,000,000	$14,000,000	**$14,242,887**

SLSDC ARP Capital Investment Plan Five-Year Estimates

FY 2015 Request / FYs 2016-2019 Estimates

		End of Original ARP Schedule				Extension of Program	
Project No.	**Project Title**	**FY 2015 Request**	**FY 2016 Estimate**	**FY 2017 Estimate**	**FY 2018 Estimate**	**FY 2019 Estimate**	**Five-Year Totals**
1	Both Locks -- Replace Fending on Approach Walls	$250,000	---	$350,000	---	$250,000	**$850,000**
3	Both Locks -- Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	---	$100,000	---	$100,000	---	**$200,000**
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	$25,000	---	$25,000	---	$25,000	**$75,000**
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	---	---	$400,000	$425,000	$425,000	**$1,250,000**
8	Floating Navigational Aids - Replace	$65,000	---	$65,000	$65,000	$70,000	**$265,000**
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	$200,000	$250,000	$250,000	$250,000	$250,000	**$1,200,000**
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	$20,000	$20,000	$20,000	$20,000	$25,000	**$105,000**
11	Fixed Navigational Aids - Rehabilitate	$100,000	$50,000	$50,000	$100,000	$100,000	**$400,000**
12	Corporation Equipment - Floating Plant/Tugs - Replace	$750,000	$10,000,000	$10,000,000	$4,000,000	---	**$24,750,000**
13	Corporation Facilities - Replace Roofs	$500,000	---	$300,000	$300,000	---	**$1,100,000**
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	---	---	---	$750,000	$1,000,000	**$1,750,000**
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	---	---	---	$250,000	---	**$250,000**
16	Corporation Technologies - Upgrade GPS/AIS/TMS	$100,000	---	---	$100,000	---	**$200,000**
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	---	---	$4,000,000	---	$3,000,000	**$7,000,000**
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	$450,000	---	---	$350,000	---	**$800,000**
20	Both Locks - Upgrade Lock Status/Controls	$50,000	$50,000	$50,000	---	$50,000	**$200,000**
21	Both Locks - Compressed Air Systems - Upgrade/Replace	$100,000	---	$20,000	---	---	**$120,000**
23	Both Locks - Install Vessel Vacuum Mooring Systems	$8,000,000	$8,000,000	---	---	---	**$16,000,000**
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	$100,000	---	---	$150,000	---	**$250,000**
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts and Equipment	---	$450,000	---	---	$400,000	**$850,000**
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	---	---	---	$125,000	---	**$125,000**
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	---	---	---	---	$2,000,000	**$2,000,000**
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	---	---	$2,000,000	---	---	**$2,000,000**
30	Eisenhower Lock - Ice Flushing System - Upgrade	---	---	$500,000	---	---	**$500,000**
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	---	---	$200,000	---	---	**$200,000**
34	Both Locks - Improve Ice Control	---	---	$100,000	---	---	**$100,000**
36	Eisenhower Lock - Diffusers - Replace	---	---	---	$2,500,000	---	**$2,500,000**
38	Both Locks - Upgrade/Replace Emergency Generators	---	---	$500,000	---	---	**$500,000**
42	Both Locks - Miter Gates - Structural Rehabilitation	$800,000	---	---	$4,500,000	---	**$5,300,000**
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	$1,800,000	---	---	---	---	**$1,800,000**
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	$425,000	---	---	---	---	**$425,000**
45	Flow Control Dikes - Rehabilitate	---	---	---	$500,000	---	**$500,000**
46	Both Locks - Guidewall Extensions - Rehabilitate	---	---	---	$515,000	$550,000	**$1,065,000**
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	---	---	---	---	$2,000,000	**$2,000,000**
48	Both Locks - Stiffleg Derricks - Replace	---	$420,000	---	$420,000	---	**$840,000**
49	Seaway International Bridge - Replace Deck	---	---	---	---	$4,000,000	**$4,000,000**
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	$1,000,000	**$1,100,000**
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	---	---	---	$3,500,000	---	**$3,500,000**
57	Corporation Technologies - Upgrade Network Security	$50,000	---	$50,000	---	$50,000	**$150,000**
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	$50,000	$50,000	$50,000	$50,000	$100,000	**$300,000**
59	Corporation Facilities - Communications Improvements	$50,000	---	---	$200,000	---	**$250,000**
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	$250,000	$350,000	$250,000	$200,000	$200,000	**$1,250,000**
61	Both Locks - Replace Recess Covers on Lock Walls	$165,000	---	---	$200,000	---	**$365,000**
	Total	**$14,300,000**	**$19,790,000**	**$21,680,000**	**$19,620,000**	**$15,495,000**	**$90,885,000**

Highlighted projects are those capital projects and expenses needed beyond the original scope of the ARP.