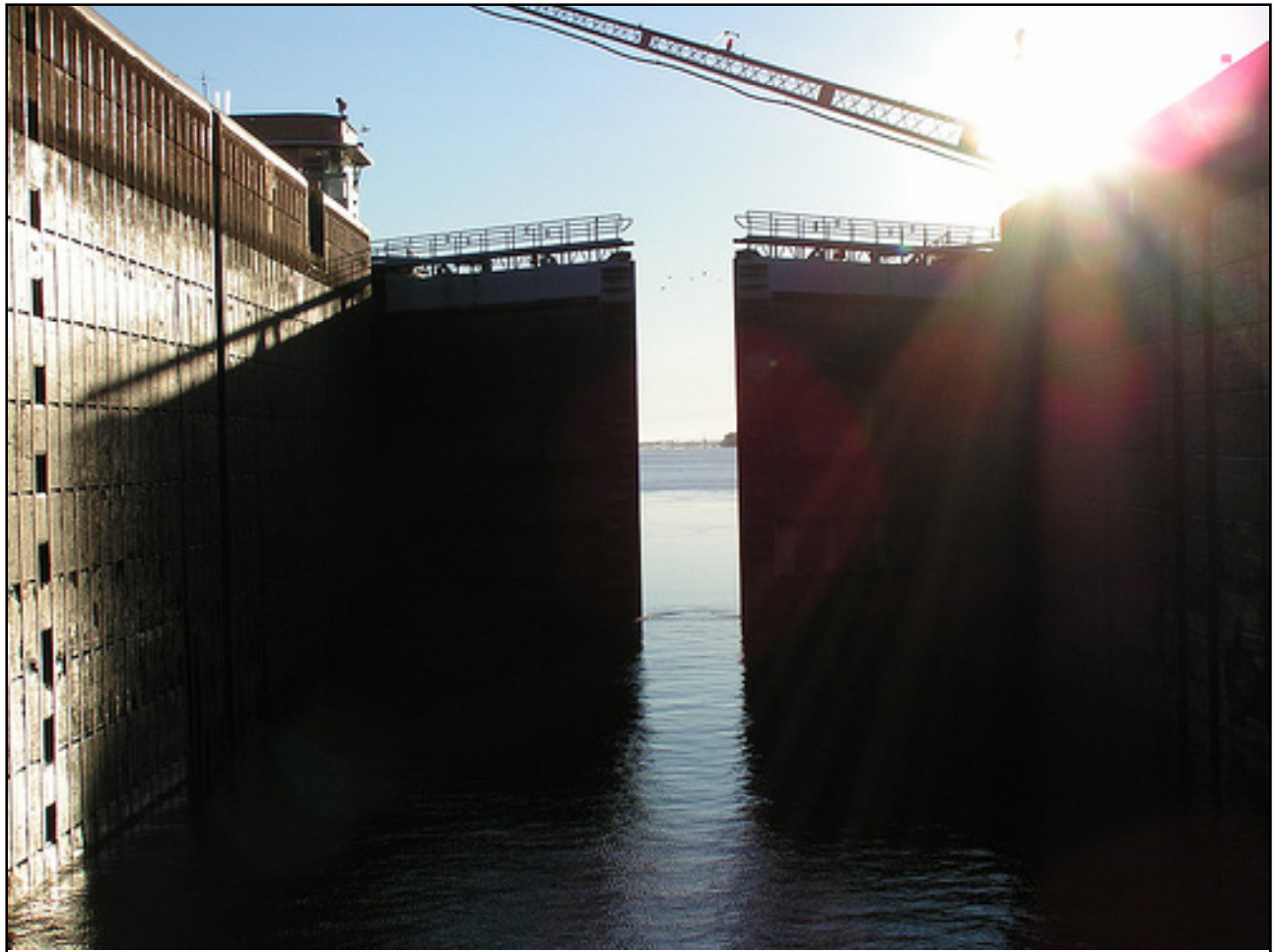




Saint Lawrence Seaway Development Corporation

Seaway Asset Renewal Program (ARP) Semiannual Report to Congress



September 30, 2010

BACKGROUND AND SUMMARY

As directed in the Conference Statement of H.R. 1105 (Fiscal Year (FY) 2009 Omnibus Appropriations Act), Division I (Transportation, Housing and Urban Development, and Related Agencies), the Saint Lawrence Seaway Development Corporation (SLSDC) is providing a semiannual report to the House and Senate Appropriations Committees on the status of its Asset Renewal Program (ARP). Semiannual status reports are expected to be sent to the two Committees over the projected 10-year life of the program. In addition, Committee staff will be updated throughout the year, as needed, 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 reinvest and 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 in Massena, N.Y. None of the ARP projects will result in increases to the authorized depth or width of the navigation channel or to the size of the lock facilities.

Without such significant reinvestment in these perpetual transportation assets, it will become increasingly difficult to maintain the future availability and reliability of the Seaway (currently at greater than 99 percent). An economic analysis concluded that the economic impact of a shutdown of either of the two U.S. locks would result in a loss to those dependent on this mode of transportation of \$1.3-\$2.3 million per day, depending on the length of the delay.

On December 16, 2009, President Obama signed the "Consolidated Appropriations Act, 2010" (P.L. 111-117), which included \$16.3 million in the SLSDC's annual appropriation for FY 2010 to fund more than 20 Year Two ARP projects. By the end of FY 2010, the SLSDC obligated \$16.3 million on 25 ARP projects. Of these 25 projects, 14 of them were the continuation of ARP work funded and started in FY 2009. The SLSDC expended an additional \$535,000 in personnel compensation and benefits from its "Operations and Maintenance program in FY 2010 for staff time associated with ARP work.

Following the enactment of Year Two funding in December 2009, SLSDC senior officials completed an adjusted internal ARP spending plan for FY 2010 by reallocating funding, and deferring and accelerating projects as needed to meet the program's objectives and the targeted spending amount. This on-going program "recalibration" is critical to the overall success of the ARP as it allows SLSDC officials to make necessary adjustments based on enacted funding, more accurate cost estimates, and current priorities. For example, the FY 2010 adjusted spending plan took into account that the actual contract costs for rehabilitating/upgrading lock operating components obligated in FY 2009 were higher than the baseline estimates included in the Congressional Justification. These adjustments required the deferment of some lower priority ARP projects originally planned for FY 2010 to out years in order for the SLSDC to fund the prioritized lock-related work in FY 2010. In addition, SLSDC officials are continually making on-going internal budget adjustments throughout the year as needed to ensure that the most current priority projects are funded and the overall enacted ARP budget level is met.

The SLSDC's ARP Internal Working Group continues to meet regularly to review the status of ongoing projects and to collectively discuss ways to improve the overall management, execution, and reporting of the program. The SLSDC created the working group in 2008, made up of senior managers in engineering, procurement, financial management, budget, counsel, and policy, to review project plans and milestones, troubleshoot any concerns, and report progress to senior executives.

The SLSDC's multi-year ARP supports the engineering considerations highlighted in the *Great Lakes St. Lawrence Seaway Study* (published in November 2007) and follows the asset renewal activities currently underway at the Canadian Seaway locks. 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 8 Welland Canal locks that are over 75 years old. The Canadian portion of the St. Lawrence Seaway is managed and operated by the St. Lawrence Seaway Management Corporation (SLSMC).

In order to ensure that the St. Lawrence Seaway opens to navigation as scheduled, the SLSDC included monetary incentives and penalties for contractors working on lock operating components during the winter months. In addition, the SLSDC reserved the right to place additional personnel and/or equipment necessary to complete the work at the expense of the contractor.

The ARP has resulted in not only modernized infrastructure and new equipment to ensure the long-term reliability of the St. Lawrence Seaway, but it has also had a positive and significant impact on the Upstate New York economy. During the program's first two years, the economic impact to the regional economy of Upstate New York totaled nearly \$25 million. More significant impacts are expected when the large-scale lock-related projects take place during the non-navigation winter months starting in January 2011.

Original ARP baseline project estimates developed by the SLSDC used four criteria, 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 (4) utilization of data from RSMeans, which serves as North America's leading supplier of construction cost information. Estimates used in developing the FY 2010 ARP operating plan and out-year estimates also considered final contract totals for similar ARP work awarded during the program's first year in FY 2009.

In May 2010, the Government Accountability Office (GAO) issued its final report on its year-long review of the ARP and the SLSDC's methodology used to develop the plan's baseline estimates. In general, GAO approved of the SLSDC's methodology and recommended some additional government-wide "best practices" to use in estimating costs for out-year ARP projects. The SLSDC agreed to consider the report's recommendation and met with GAO cost estimating officials to implement new internal estimating procedures.

This semiannual report provides the Appropriations Committees with updates on (1) final FY 2010 ARP obligations by project; (2) GAO's review of the program; and (3) the latest five-year estimates for ARP projects in FYs 2011-2015.

PROJECT UPDATES (as of September 30, 2010)

The following information provides a project-by-project update on 25 ARP projects that were funded in FY 2010 (*not in chronological order of the ARP's current total of 57 projects*). The selection of projects in FY 2010 was based on those identified either during the ARP's initial baseline plan or during on-going reprioritization to address projects with an immediate need.

To date, there have been no significant problems, delays, or cost overruns that have impacted the implementation of the ARP. In addition, the SLSDC continues to use contract vehicles that promote small and disadvantaged businesses whenever possible and also federal contract programs offered by the General Services Administration (GSA), including e-Buy, AutoChoice, and the Federal Supply Schedule.

Project No. 1: Snell Lock – Replace Fendering Downstream Guidewall Extension

General Description: This project is to replace the composite fendering on the downstream guidewall extension at Snell Lock. The existing composite fenders were a trial design installed nearly 20 years ago which have become very difficult/expensive to maintain and are in need of replacement to insure that vessels using this approach wall or the approach wall itself are not damaged due to the condition of the existing fendering.

Type of Project¹: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$0

FY 2010 Adjusted Internal Spending Plan (March 2010): \$10,000

FY 2010 Obligations (as of September 30, 2010)²: \$8,091

Update (as of September 30, 2010): During the summer months of FY 2010, SLSDC employees installed approximately 500 feet of composite fendering along the downstream guidewall extension at Snell Lock. The SLSDC made an award to J&S Steel LLC, Plattsburgh, N.Y., for \$8,091 (lowest bid) for the purchase of threaded steel rods, hex nuts, and washers used in the installation of the fendering.

¹ 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 keeps it in an ordinarily efficient operating condition. Expenditures for these maintenance projects are recognized as operating costs.

² 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.

Project No. 3: Both Locks – Rehabilitate Mooring Buttons, Pins and Concrete along Guidewalls and Guardwalls

General Description: This project is a multi-year initiative to rehabilitate the upstream and downstream approach walls at both locks. These are mass concrete monolithic structures with vessel mooring buttons located behind them for transiting vessels to tie to. Since they were constructed, the concrete lifts/blocks have been dislodged and concrete damaged by vessel impact. The mooring buttons have settled such that they collect water/ice, making them difficult to use. The rehabilitation work will include pinning dislodged lifts, repairing damaged concrete and raising mooring buttons that have settled to improve the serviceability of the approach walls.

Type of Project: Capital Project

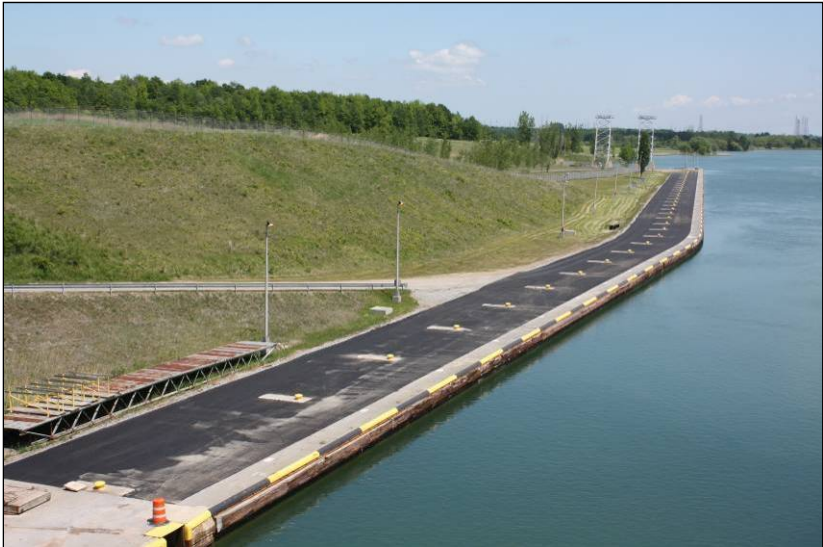
Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$251,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$0

FY 2010 Obligations (as of September 30, 2010): \$35,422

Update (as of September 30, 2010): Although no funding was allocated for this project, there was an immediate need for Corporation personnel to repair damaged electrical handholes on the upstream guidewall at Snell Lock. Also in FY 2010, the SLSDC modified its existing contract with Barrett Paving Materials, Inc., Watertown, N.Y., to add paving and drainage work at both Eisenhower and Snell Locks. The contract modifications were for \$33,735. During FY 2010, Barrett Paving also completed paving and drainage work funded in FY 2009 along the upstream and downstream guidewalls at both locks.



Newly repaired and repaved lower guidewall at Eisenhower Lock during the summer of 2010.

Additionally, the SLSDC awarded an order in January 2010 to Haun Welding Supply, Inc., Massena, N.Y., for \$911 for the purchase of welding wire used in the electrical handhole repairs.

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

General Description: This project is for replacing the operating machinery for the north side culvert valves at both locks, which are utilized for filling and emptying the locks. The second phase in future years will address the south side valves at both locks. This machinery is over 50 years old and the open gearing is exhibiting macropitting (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 insure its continued reliability. Failure of this equipment during operation or during a transit 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 would not be possible. The upgrade will include new hydraulic operating machinery to match the upgrades made at the Canadian Seaway locks and other similar locks in the United States.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$0

FY 2010 Adjusted Internal Spending Plan (March 2010): \$325,000

FY 2010 Obligations (as of September 30, 2010): \$344,915

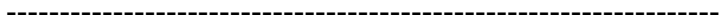
Update (as of September 30, 2010): During FY 2010, the SLSDC awarded several contracts related to the preparation of the culvert valve machinery recesses at both locks for the north side operating machinery upgrades to take place beginning in January 2011 at both Eisenhower and Snell Locks. In FY 2009, the SLSDC awarded the upgrade contract to Hohl Industrial Services, Inc., Tonawanda, N.Y., for \$4,077,050.

Contracts awarded in FY 2010 related to this project were:

- Project management and construction inspection services (\$167,384)
Lowe, Gravelle and Associates, Massena, N.Y. (negotiated time and materials contract; award made to the offeror providing the best value to the Corporation)
- Cutting of concrete from culvert valve recesses (\$136,368)
Fiacco and Riley Construction, Inc., Norwood, N.Y. (negotiated fixed unit-priced contract; award made to the offeror providing the best value to the Corporation)
- Modifications to lock control program (\$13,255)
Optimation Technology, Inc., Rush, N.Y. (sole source; contractor was awarded the primary contract to upgrade the lock controls status program)
- Storage cabinets for tools/supplies required to maintain new hydraulic systems (\$9,756)
Stanley-Vidmar, Allentown, Pa. (GSA Federal Supply Schedule)

- Training for maintaining hydraulic equipment (\$8,715)
Bosch Rexroth Corp., Bethlehem, Pa. (negotiated fixed unit-priced contract; award made to the offeror providing the best value to the Corporation)

During FY 2010, Fiacco & Riley Construction completed its work related to the removal/saw-cutting of concrete from the machinery recesses at both locks. In addition, SLSDC maintenance personnel completed the installation of drains and stairs in the north recesses as well as new control equipment. Throughout the year, the SLSDC also continued to work with Hohl Industrial Services officials in preparation for the upgrade work to commence following the 2010 navigation season.



Newly refurbished and insulated lock covers will provide better lock access during winter work and save lock chamber heating costs.

Project No. 5: Both Locks – Rehabilitate and Insulate Winter Maintenance Lock Covers

General Description: This project is for rehabilitating and insulating the roof cover modules utilized to cover Eisenhower and Snell Locks when major winter maintenance projects are planned. These covers are over 40 years old and require rehabilitation. Improved insulation and structural modifications to the covers will provide winter work personnel and contractors with better access to work areas in the

locks. In addition, the rehabilitated covers will eliminate the need to temporarily remove the roof sections when larger access is required, thus saving heating costs when temperature-sensitive projects are underway in the lock chambers such as concrete replacement and steel structure painting.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$0

FY 2010 Adjusted Internal Spending Plan (March 2010): \$5,000

FY 2010 Obligations (as of September 30, 2010): \$6,638

Update (as of September 30, 2010): In FY 2009, the SLSDC contracted for fabrication and installation of additional roof cover access panels, as well as purchasing steel and other materials for in-house staff to modify roof covers. In FY 2010, the SLSDC awarded a contract to Wasser Corporation, Kent, Wash., for \$4,652 for paint used to recoat the bar joists after they were blast cleaned prior to performing the required modifications. SLSDC personnel completed the rehabilitation/modification of two roof cover modules during the fiscal year.

Project No. 6: Seaway International Bridge – Perform Structural Rehabilitation and Corrosion Prevention

General Description: This project is for rehabilitation of the structural components of the south span bridge between Rooseveltown, N.Y., and Cornwall Island, which crosses the Seaway navigation channel. The bridge, which annually accommodates more than 2.5 million vehicles, was opened to traffic in 1962 and is in need of significant rehabilitation. This project, scheduled for completion after four years of work, is designed to stop the corrosion currently experienced on many portions of the bridge structure and prevent the need for large-scale structural or even bridge replacement in the future. The SLSDC owns 68 percent of the south span bridge and the budget request reflects the U.S. prorated amount for the project. The Canadian Federal Bridge Corporation (FBC) owns the remaining 32 percent of the bridge and will fund its share.



View from U.S. viaduct of scaffolding and work areas for Phases 1 and 2 of the Seaway International Bridge recoating project.

Type of Project: Non-Capital Maintenance Project

Mission Objective: Tunnel and Bridge Maintenance

FY 2010 Request Estimate (February 2009): \$5,773,000

FY 2010 Adjusted Internal Spending Plan (March 2010):
\$4,500,000

FY 2010 Obligations (as of September 30, 2010): \$5,680,707

Update (as of September 30, 2010): The Canadian Seaway International Bridge Corporation (SIBC), which operates and maintains the Seaway International Bridge for the two owners (SLSDC and FBC), made an award to Abhe and Svoboda, Inc., Prior Lake, Minn., in August 2009 to complete the first two phases of the recoating project, which included the U.S. viaduct (portion of bridge over land) and sidespan of the bridge. Work began in late spring 2010 and was completed by late fall. During these first two phases, nearly 150,000 square feet of corroded lead paint was removed by blast cleaning, properly disposed, and a new coating system was applied.

In FY 2010, the SIBC awarded the next two phases to Abhe and Svoboda, Inc. The SLSDC obligated \$5,680,707 as its portion for these next two phases (\$4,050,707 for Phase 3 and \$1,630,000 for Phase 4), which will address the centerspan and Canadian sidespan (approximately 175,000 square feet) and are expected to be completed in 2011. The final phase, expected to be awarded in FY 2011, will address the Canadian viaduct section of approximately 100,000 square feet. The SLSDC is responsible for 68 percent of work on all sections of the bridge, including the final phase.

The SLSDC and SIBC entered into a Memorandum of Understanding (MOU) for the multi-year project, which details the estimates for the project and the process for the SLSDC to obligate funds to the SIBC for the project.

Project No. 7: Both Locks – Culvert Valves – Replace with Single Skin Valves

General Description: This project is for replacing the double skin culvert valves utilized for filling and emptying the locks with single skin valves. Cracking of major structural members has occurred with the double skin construction and the structural members are not accessible for inspection, blast cleaning, and painting. 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. Dependant on the type of failure, other lock operating components/equipment could be damaged causing the lock to be out of service for an extended period of time.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$603,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$297,000

FY 2010 Obligations (as of September 30, 2010): \$326,898

Update (as of September 30, 2010): In FY 2009, the SLSDC deferred this project due to an excessively high bid from only one respondent and, as a result, it re-advertised it to a wider range of businesses in early FY 2010. An award was made to LMC Power Systems, Dansville, N.Y., in January 2010 for \$313,542 (lowest bid) for two valves with stems. During the first half of the fiscal year, LMC Power Systems visited the work site and began fabrication of the two valves with stems during the summer months. Delivery is scheduled for early 2011. Following delivery, these first two valves will be installed by SLSDC personnel during the winter months.

In addition, the SLSDC awarded a contract in May 2010 to Quality Inspection Services, Inc., Buffalo, N.Y., for \$13,356 to inspect the welds and coatings during valve fabrication at LMC's facilities.

Project No. 8: Floating Navigational Aids – Upgrade/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 2010 Request Estimate (February 2009): \$60,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$60,000

FY 2010 Obligations (as of September 30, 2010): \$54,576

Update (as of September 30, 2010): In June 2010, the SLSDC issued an award to Tideland Signal Corporation, Lafayette, La., for \$54,576 for 53 floating navigation aid LED lights via the GSA e-Buy program. The new lights, which will be installed by SLSDC staff, are specially designed to increase beam divergence while consuming less power.

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 it becomes worn out and unserviceable. Heavy and light equipment includes such items as a crane, dump truck, snow plow, backhoe, grader, front end loader and shop equipment, including a lathe, milling machine, and drill press.



SLSDC's new horizontal boring mill to be used to repair and rebuild lock operating machinery components.

Type of Project: Capital Equipment

Mission Objective: Lock Operation Upgrade and Maintenance / Waterway Management

FY 2010 Request Estimate (February 2009): \$251,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$235,000

FY 2010 Obligations (as of September 30, 2010): \$481,052

Update (as of September 30, 2010): In FY 2010, the SLSDC ordered seven work vehicles, including two hybrid vehicles, through GSA's AutoChoice program for use in Massena, N.Y. The total cost of the vehicles was \$200,172. An additional \$32,688 was awarded to Astoria Industries of Iowa, Inc., Chariton, Iowa, (low bidder) for four industrial vehicle toolboxes for the maintenance crews to use with the new trucks.

In FY 2010, the Corporation also purchased a horizontal boring machine from United Procurement, L.P., Red Oak, Texas, for \$217,227 (lowest bid). This new machine, which was delivered in the fall of 2010, will be used to repair and rebuild components of the lock operating machinery. The boring machine will provide both new capabilities while also serve as an upgrade to several of the outdated tools used by SLSDC personnel. Additional purchases included steel to fabricate carriers used to transport the counterweights for the 170-ton capacity all terrain crane purchased in FY 2009 (\$2,362) and a pickup truck-mounted snow plow for clearing snow and ice along the lock areas (\$4,095).

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 utilize diesel generators, which are expensive to operate, to continue operation of Eisenhower and Snell Locks and the Maintenance Facility.

Type of Project: Non-Capital Maintenance Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$75,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$100,000

FY 2010 Obligations (as of September 30, 2010): \$231,269

Update (as of September 30, 2010): The New York Power Authority (NYPA) is continuing to rehabilitate 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 the work to be completed. This is a recurring annual ARP project with expenditures dependent on NYPA plans and work completed. In September 2010, the SLSDC paid NYPA \$225,271 for its work on SLSDC power-related infrastructure rehabilitation. Also during the fiscal year, the SLSDC expended \$5,497 for the purchase of fuel oil used for operating a generator while NYPA worked on the switchgear at Eisenhower Lock.

Project No. 11: Fixed Navigational Aids – Rehabilitate

Description: This project is for rehabilitating fixed navigational aids in the Seaway. Many of the structures are over 50 years old and are in need of more than routine repairs. Many of these structures have concrete bases which are eroding and cracking. The inspection of these structures was done by divers and the majority of the repairs will require divers and the use of a tugboat and a barge with crane to complete. Failure to rehabilitate fixed aids would likely make it necessary to replace them at a significantly higher cost than repairing the existing structures.

Type of Project: Non-Capital Maintenance Project

Mission Objective: Waterway Management

FY 2010 Request Estimate (February 2009): \$201,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$10,000

FY 2010 Obligations (as of September 30, 2010): \$10,998

Update (as of September 30, 2010): The SLSDC did not have any significant expenditures for this project in FY 2010. Diver reports in FY 2009 noted that the SLSDC’s fixed navigational aids are not in need of significant immediate rehabilitation. There were only a few minor repairs to fixed aids during the year totaling \$10,998.

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



Corporation personnel, under the direction of Poseidon Barge Corp. representatives, are assembling the sectional spud barge for the first time.

General Description: This is an ongoing program to rehabilitate and/or replace the Corporation's floating plant which is utilized for maintaining the locks and navigation channels. This multiyear project includes plans to replace the SLSDC’s tug *Robinson Bay*; upgrade the buoy tender barge; purchase a smaller tug for more efficient operations where the capabilities of the larger tug are not required; purchase a boat to be used for hydrographic surveying and upgrade the surveying equipment and software, purchase a small boat for emergency response; purchase a spud barge/scow for work on navigational aids and for

emergency/spot dredging; and rehabilitate the Corporation’s crane barge/gatelifter, which would have to be utilized if a miter gate was damaged and had to be replaced.

Type of Project: Capital and Non-Capital Maintenance Projects

Mission Objective: Lock Operation Upgrade and Maintenance / Waterway Management

FY 2010 Request Estimate (February 2009): \$503,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$1,845,000

FY 2010 Obligations (as of September 30, 2010): \$1,627,925

Update (as of September 30, 2010): FY 2010 priorities for this project included the purchase of an emergency response boat and sectional spud barge as well as the drydocking of the Corporation's tug and gatelifter. As highlighted in the September 30, 2009 ARP semiannual report, the boat and barge purchases were deferred in FY 2009 in order to fund higher priority ARP projects.

In October 2009, the SLSDC purchased a 23-foot aluminum boat with trailer and outboard motors, from William A. Munson Co., Burlington, Wash. (lowest bid on GSA e-buy program) for \$93,227. The boat will be used for navigational aid repair and emergency response. The boat, trailer, and motor were delivered in February 2010. In January 2010, the SLSDC awarded a contract to Poseidon Barge Corp., Fort Wayne, Ind. (best value) for the fabrication and delivery of a 50-foot by 110-foot sectional spud barge. The contract cost for the barge as of March 31 was \$846,136. Two additional purchases were made in FY 2010 related to the spud barge: two hand deck winches (Back Creek Marine Supplies, Chesapeake City, Md., for \$9,135); and wire rope (Hanes Supply, Inc., Colonie, N.Y., for \$2,988). Delivery of the barge and training for SLSDC personnel took place in the spring of 2010. The barge will be used for performing repair work on fixed aids to navigation and docks as well as for emergency/spot dredging.

During the second half of the fiscal year, the SLSDC awarded drydocking services for the *Robinson Bay* tugboat and *Grasse River* gatelifter to Heddle Marine, Hamilton, Ont., for \$506,739. The drydocking is expected to take place after the spring 2011 buoy run. The drydocking will focus on blast cleaning and painting of the vessel's hulls and inspecting and repairing underwater components as required.

In addition, the SLSDC awarded a contract to Marine Services Corp., Boston, Mass. (GSA e-Buy contract; award made to the offeror providing the best value to the Corporation), for \$132,318 to prepare designs, specifications, drawings, and cost estimates for improvements to the SLSDC's existing buoy barge, which are expected to be funded in FY 2011. Anticipated improvements include a new crane with a longer reach, an upgraded fire suppression system, an upgraded heating system, a pin/notch component for making a better connection with the tugboat, and other minor improvements.

Project No. 14: Corporation Facilities – Replace Paving and Drainage Infrastructure

General Description: This project is for improving the pavement and drainage along lock approach walls, Corporation roadways and parking and work areas at all Corporation facilities. In Upstate New York, the damage to pavements caused by winter conditions is significant. Repairs often require complete replacement of the pavement down to and including the base materials.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance / Waterway Management

FY 2010 Request Estimate (February 2009): \$1,508,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$1,000,000

FY 2010 Obligations (as of September 30, 2010): \$1,829,621

Update (as of September 30, 2010): In the second half of FY 2010, the SLSDC awarded two contracts related to paving and drainage. The first contract was made to Hatch Mott McDonald, Buffalo, N.Y., for \$47,621 (lowest bid) for reconnaissance work, including soil borings, and preparation of designs, specifications, drawings, and cost estimates for future paving and drainage improvements. Hatch Mott MacDonald is one of the SLSDC's three architect/engineering (A/E) firms on an indefinite delivery contract³. The work was completed prior to the end of FY 2010 and the SLSDC used the plans to determine locations and priorities for future paving and drainage work.

Additionally, the SLSDC awarded a contract in September 2010 to J.E. Sheehan Contracting Corp., Potsdam, N.Y., for \$1,782,000 for paving and drainage improvements to take place in the spring of 2011. The work to be completed next year will focus on paving and drainage improvements at both locks, the Maintenance Facility, the spare gate storage area and at the Administration Building.

³ 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 without the time constraints of traditional federal contracts. The SLSDC expects to use architect/engineering (A/E) contractors to receive support and expert advice on project plans, specifications, drawings, and cost estimates throughout the ARP 10-year timeframe. To that end, the SLSDC awarded indefinite delivery contracts in FY 2009 to three A/E firms to support the ARP – Hatch Mott MacDonald, Buffalo, N.Y., Parsons Brinckerhoff (PB) Americas, Inc., Buffalo, N.Y., and Aubertine and Currier, Watertown, N.Y. As support work is needed, the SLSDC will request proposals from the three firms in a streamlined process, with negotiations, if 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.

Project No. 15: Eisenhower Lock Highway Tunnel – Rehabilitate

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



Contractor removed concrete to expose joints below roadway surface for grouting and sealing.

This project includes a tunnel lighting upgrade, grouting to limit water leaking into the tunnel, 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. This tunnel is the only means of accessing the facilities noted above and any problems that would make it necessary to close the tunnel for repair would have very significant impacts.

Type of Project: Non-Capital Maintenance Project

Mission Objective: Tunnel and Bridge Maintenance

FY 2010 Request Estimate (February 2009): \$0

FY 2010 Adjusted Internal Spending Plan (March 2010): \$275,000

FY 2010 Obligations (as of September 30, 2010): \$271,804

Update (as of September 30, 2010): In October 2009, the SLSDC awarded a contract to Fiacco and Riley Construction, Co., Norwood, N.Y. (lowest bidder) for tunnel grouting and sealing. Work began in November 2009 and was completed in June 2010. Following a modification to the original contract to include additional grouting of tunnel joints, the final cost was \$270,916.

Project No. 16: Seaway System – Upgrade GPS/AIS/TMS Technologies

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

Type of Project: Capital Project

Mission Objective: Waterway Management

FY 2010 Request Estimate (February 2009): \$0

FY 2010 Adjusted Internal Spending Plan (March 2010): \$0

FY 2010 Obligations (as of September 30, 2010): \$76,451

Update (as of September 30, 2010): In January 2010, the Corporation purchased equipment needed to provide additional water level data to its vessel traffic management system as part of a joint binational project to provide mariners with better information about a vessel's under-keel clearance. The upgrade also provides wind speed and direction data that was previously unavailable. The equipment was purchased on the GSA e-Buy / Federal Supply Schedule from Zeller Corp., Syracuse, N.Y., for \$2,208.

Two additional contracts were awarded during the year related to this project: (1) four new AIS base stations from L-3 Communications Corp., Sarasota, Fla. (\$64,050) (GSA sole source contract; based on compatibility with Canadian SLSMC transponders and recommendations by SLSDC's AIS developer, Volpe National Transportation Systems Center) and (2) SLSDC's portion of upgrades to the binational TMS software from the Canadian SLSMC (\$5,432).

Project No. 18: Eisenhower Lock – Vertical Lift Gate – Replace Wire Ropes

General Description: This project is for replacing the wire rope cables that serve to raise and lower the vertical lift gate at Eisenhower Lock. These cables were last replaced in 1979 and are exhibiting some strand breakage and corrosion. The vertical lift gate is an emergency closure designed to hold back the power pool if a miter gate is compromised.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$503,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$500,000

FY 2010 Obligations (as of September 30, 2010): \$487,750

Update (as of September 30, 2010): In April 2010, the SLSDC awarded a contract to B-S Industrial Contractors, Inc., Gouveneur, N.Y., for \$437,750 (lowest bid) to replace the vertical lift gate wire ropes. The upgrade will take place following the 2010 navigation season.

The SLSDC also awarded a contract to C&S Companies, Inc., Syracuse, N.Y., to perform construction inspection services for both the Eisenhower Lock upstream miter gate rehabilitation (ARP project No. 31) and the vertical lift gate wire rope replacement. The award amount was \$234,500 (lowest bid), of which 20 percent or \$46,900 is applied to this project.

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 insure continued reliability. The majority of this equipment is more than 50 years old.

Type of Project: Capital Project

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

FY 2010 Request Estimate (February 2009): \$151,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$150,000

FY 2010 Obligations (as of September 30, 2010): \$753,400

Update (as of September 30, 2010): An award was made in September 2010 to S&L Electric, Inc., Colton, N.Y., for \$753,400 (lowest bid) to perform the first phase of this multi-year electrical distribution project at both locks. The first phase will include removing existing electrical equipment and for installing new panel boards, motor control centers, transformers and metering and for relocating circuits from existing switchgear to the new equipment at Eisenhower and Snell Locks and is scheduled to begin in December 2010.

Project No. 20: Both Locks – Upgrade Lock Status/Controls

General Description: This project is for upgrading the lock/equipment status systems and the lock operating controls at both Eisenhower and Snell Locks. At present only the most critical components are monitored and controlled by the new computerized system. Adding control of other critical components for the more in depth status monitoring will improve the effectiveness of preventive maintenance activities, resulting in increased reliability. It is also necessary to upgrade the lock control graphics software as support for the existing software is being discontinued.

Type of Project: Capital and Non-Capital Maintenance Projects

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$151,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$200,000

FY 2010 Obligations (as of September 30, 2010): \$139,805

Update (as of September 30, 2010): In FY 2010, the SLSDC is making significant upgrades to its lock control system. Most notably, the SLSDC is upgrading the graphics software for the system.

The two most significant contracts awarded in FY 2010 were for new lock control system equipment to Zeller Corp., Syracuse, N.Y., (\$64,662) (GSA Federal Supply Schedule), and for upgrading lock control graphics software to Optimization Technology, Inc., Rush, N.Y. (\$59,500) (sole source; vendor is the authorized distributor of the new software program and has the source codes for the both the old and new programs to easily automate the software conversion).

In addition, the SLSDC awarded several contracts totaling \$15,644 for computer servers, software licensing, and cabling to complete the installation of the system. SLSDC electricians completed the cabling work for installation of the new servers with the upgraded graphics software. The SLSDC will continue to work with Optimization Technology to beta-test the new system prior to moving the system into production.

The SLSDC is working on this project concurrently with work on Project No. 4 (culvert valve machinery upgrade) and expects to put the new system into production prior to the start of the 2011 navigation season.

Project No. 21: Snell Lock – Compressed Air Systems – Upgrade/Replace

General Description: This project is for replacing the compressors and corroded piping at Eisenhower and Snell Locks. Compressed air is used for various systems at the locks, for maintenance work, and for air curtains and bubblers utilized to control ice in and around the locks, particularly 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 increasingly problematic.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$1,508,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$1,500,000

FY 2010 Obligations (as of September 30, 2010): \$787,549

Update (as of September 30, 2010): Aubertine and Currier, Watertown, N.Y., one of the SLSDC's indefinite delivery A/E firms, was awarded an order in FY 2009 to evaluate the existing compressed air systems and to provide recommendations for improving those systems. The final report was delivered in April 2010 after which SLSDC engineering and maintenance personnel selected the options to implement and SLSDC staff completed the designs, specifications, drawings, and cost estimates for the work.

In September 2010, the SLSDC awarded a contract to Erie Mechanical Contractors, Inc., Syracuse, N.Y., for \$766,000 (lowest bid) to replace the compressors and associated equipment at both locks. Work is expected to commence in spring 2011.

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

General Description: This project is for constructing and/or upgrading storage shelters 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 Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$201,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$200,000

FY 2010 Obligations (as of September 30, 2010): \$418,000

Update (as of September 30, 2010): In June 2010, the SLSDC awarded a contract to one of its A/E indefinite delivery firms (Hatch Mott MacDonald) for \$3,641 to perform a subsurface investigation and report for the proposed storage facility.

Following the receipt of the subsurface investigation report, SLSDC engineers completed specifications, drawings, and cost estimates and a contract was awarded in September 2010 to Rand & Jones Enterprises Co., Inc., Buffalo, N.Y., for \$418,000 (low bidder) to furnish and erect a 70-foot by 100-foot pre-engineered metal storage building at the Corporation's Marine Base/Maintenance facilities, including the pouring of a concrete floor. Construction is expected to begin in early FY 2011.

Project No. 27: Corporation Facilities – Replace Windows and Doors and Repair Building Facades

General Description: This project is for replacing corroded/worn windows and doors with more energy efficient units and for repairing the brick and stone facades which are in need of repair.

Type of Project: Capital Project

Mission Objective: Facility Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$201,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$200,000

FY 2010 Obligations (as of September 30, 2010): \$33,776

Update (as of September 30, 2010): In June 2010, the SLSDC awarded a contract to Energy Engineering and Consulting Services, LLC, Swayzee, Ind., for \$33,776 (lowest bid) to complete an energy and water conservation audit of SLSDC facilities in Massena, N.Y.

The audit was completed during FY 2010 and included a report with prioritized recommendations for energy and water conservation improvements. The SLSDC will use the audit recommendations to determine future improvements.

Project No. 29: Eisenhower Lock – Walls, Sills and Culverts – Rehabilitate Concrete

General Description: This project is to replace deteriorated/damaged concrete at Eisenhower Lock in all areas except the diffusers. This includes concrete that was of poor quality when placed during original construction as well as concrete that has been damaged by seasonal freeze-thaw and by vessel impacts. The replacement project will resurface the mass concrete that forms the locks walls, culverts used for filling and emptying the lock, and the gate sills to depths ranging between approximately 8 inches and 24 inches.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$2,010,000

FY 2010 Adjusted Internal Spending Plan (March 2010): \$2,000,000

FY 2010 Obligations (as of September 30, 2010): \$209,395

Update (as of September 30, 2010): In December 2009, the SLSDC awarded a contract to PB Americas, Inc., Buffalo, N.Y., (A/E indefinite delivery; lowest bidder) to complete concrete condition surveys at both U.S. Seaway locks. The final contract amount for this project was \$209,395. The condition survey was completed during the winter period and the contractor completed its report, designs, specifications, drawings and cost estimates for the first phase of work to be completed at Eisenhower Lock starting in January 2012.

The SLSDC made the determination in August 2010 to defer the obligation of funds for the first phase of the concrete work from FY 2010 to FY 2011 due to the long lead time between the obligation and the expected commencement of work. An approximate six-month lead time was deemed reasonable, based on the federal bona fide needs rule (31 U.S.C. 1502(a)) and budgetary requirements. Therefore, the invitation for bids will be made during the summer of 2011.

Project No. 31: Both Locks – Rehabilitate Upstream Miter Gates

General Description: This project is to completely rehabilitate the miter gates at the upstream end of both Eisenhower and Snell Locks. This includes replacing worn and/or damaged components including the miter and quoin contact blocks, pintles and bushings, and diagonals to insure proper functioning of the miter gates.

Type of Project: Capital Project

Mission Objective: Lock Operation Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$0

FY 2010 Adjusted Internal Spending Plan (March 2010): \$2,800,000

FY 2010 Obligations (as of September 30, 2010): \$2,478,896

Update (as of September 30, 2010): In preparing for the large-scale project to rehabilitate the upstream miter gate at Eisenhower Lock (obligated in FY 2009), which is to be completed starting in January 2011, the SLSDC decided to save costs by purchasing some of the project materials separately. SLSDC officials met throughout the year with Hohl Industrial Services and subcontractors in preparing for the commencement of work at the end of the 2010 navigation season.

In February 2010, the SLSDC awarded a contract to Wingate Alloys, Inc., Cleveland, Ohio, for the purchase of miter and quoin contact blocks for this project as well as options for purchasing additional materials for the remaining gates. The final contract amount, which included additional materials for the upstream gate at Snell Lock, was \$531,079.

The SLSDC also awarded a contract to C&S Companies, Inc., Syracuse, N.Y., to perform construction inspection services for both the vertical lift gate wire rope replacement (ARP project No. 18) and the Eisenhower Lock upstream miter gate rehabilitation. The award amount was \$234,500 (lowest bid), of which 80 percent or \$187,600 is applied to this project.

During FY 2010, SLSDC engineers completed designs, specifications, drawings, and cost estimates for the rehabilitation of the upstream miter gate at Snell Lock, scheduled to be completed during the winter of 2012. In September 2010, the SLSDC awarded a contract to Kubricky Construction, Glen Falls, N.Y., for \$1,729,000 (lowest bid) to complete the work.

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 pads and their supporting piles 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 2010 Request Estimate (February 2009): \$0

FY 2010 Adjusted Internal Spending Plan (March 2010): \$0

FY 2010 Obligations (as of September 30, 2010): \$12,734

Update (as of September 30, 2010): Although no work was scheduled to begin on this project until FY 2011, the SLSDC funded some preliminary work by awarding a contract to Collins Engineering, P.C., Albany, N.Y., for \$12,734 to complete a diving inspection and perform a condition survey of the waterfront structures at the spare gate storage facility area. The inspection and survey were completed prior to the end of the fiscal year. SLSDC officials will use the results of the inspection and survey to prioritize work over the next several years.

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 Department and for procuring and installing the necessary smart card readers and other required infrastructure to meet Homeland Security Presidential Directive (HSPD)-12 requirements.

Type of Project: Capital Project

Mission Objective: Facilities/Equipment Upgrade and Maintenance

FY 2010 Request Estimate (February 2009): \$0

FY 2010 Adjusted Internal Spending Plan (March 2010): \$0

FY 2010 Obligations (as of September 30, 2010): \$24,183

Update (as of September 30, 2010): In an effort to meet both federal and departmental requirements for the issuance of PIV cards to all federal employees, the SLSDC spent \$24,183 through the Department's Working Capital Fund (WCF). The SLSDC successfully met the Department's deadline of September 30, 2010 to issue cards to all federal employees.

GAO REVIEW

In May 2010, the Government Accountability Office (GAO) issued a favorable review of the SLSDC's role in planning and implementing the ARP. In its report titled, *St. Lawrence Seaway: Estimates for the Asset Renewal Program Will Change, and Implementing Best Practices May Improve the Estimates' Reliability (GAO-10-541R)*⁴, GAO recommended some additional government-wide "best practices" to be used in estimating costs for out-year ARP projects.

The SLSDC agreed to consider the report's recommendation and met with GAO cost estimating officials to implement new internal estimating procedures. The SLSDC was pleased that the report's findings showed that the total estimated cost of the ARP had not changed significantly after the first year of the program.

The review focused specifically on three areas: (1) how the SLSDC developed and estimated costs of projects in its ARP; (2) to what extent the ARP covers all current or expected recapitalization needs; and (3) how effectively the SLSDC coordinated with its Canadian counterpart in developing a comprehensive and coordinated asset renewal program for all Seaway facilities.

Over the next 12 months, the SLSDC expects to finish its review of the *GAO Cost Estimating and Assessment Guide*, identify those best practices that are practical and provide value to the agency, and begin developing and implementing those practices into more formalized cost estimating procedures for its engineering and maintenance staff. The SLSDC will inform GAO officials of any progress made related to the recommendation.

ARP FIVE-YEAR ESTIMATES

As provided in the *U.S. St. Lawrence Seaway Asset Renewal Program (ARP) Capital Investment Plan (CIP), 2011-2015*, which was included in the FY 2011 budget request, the SLSDC provided estimates for executing the next five years of the ARP (*see pages 24-25*). For the FY 2011-2015 time frame, the Seaway ARP/CIP includes 41 projects and equipment purchases estimated at \$97.2 million with total funding for each year of the plan constrained to funding targets for those years as estimated and approved by the Office of Management and Budget (OMB). It is also important to note that dollar amounts for ARP projects are "project feasibility" baseline estimates and can vary by an industry-recognized 20-30 percent. Project estimates and schedules may fluctuate at various points in the lifespan of the ARP and will be revised as needed.

⁴ To download a copy of the GAO report, visit <http://www.gao.gov/products/GAO-10-541R>.

**Saint Lawrence Seaway Development Corporation (SLSDC)
Fiscal Year 2010 Asset Renewal Program (ARP) Financial Summary (as of September 30, 2010)**

ARP #	Description	FY 2010 Request (February 2009)	FY 2010 Adjusted Internal Spending Plan (March 2010)	FY 2010 Actual Obligations (September 2010)
1	Snell Lock - Replace Fendering Downstream Guidewall Extension	\$0	\$10,000	\$8,091
2	Both Locks - Rehabilitate Downstream Miter Gates (Replaced by ARP No. 31 -- Upstream Gates)	\$1,508,000	\$0	\$0
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	\$251,000	\$0	\$35,422
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	\$0	\$325,000	\$344,915
5	Both Locks - Rehabilitate and Insulate Winter Maintenance Lock Covers	\$0	\$5,000	\$6,638
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	\$5,773,000	\$4,500,000	\$5,680,707
7	Both Locks - Culvert Valves - Replace With Single Skin Valves	\$603,000	\$297,000	\$326,898
8	Floating Navigational Aids - Replace	\$60,000	\$60,000	\$54,576
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles, and Shop Equipment	\$251,000	\$235,000	\$481,052
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	\$75,000	\$100,000	\$231,269
11	Fixed Navigational Aids - Rehabilitate	\$201,000	\$10,000	\$10,998
12	Corporation Equipment - Upgrade/Replace Floating Plant	\$503,000	\$1,845,000	\$1,627,925
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	\$1,508,000	\$1,000,000	\$1,829,621
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	\$0	\$275,000	\$271,804
16	System System - Upgrade GPS/AIS/TMS Technologies	\$0	\$0	\$76,451
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	\$503,000	\$500,000	\$487,750
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	\$151,000	\$150,000	\$753,400
20	Both Locks - Upgrade Lock Status/Controls	\$151,000	\$200,000	\$139,805
21	Both Locks - Compressed Air Systems - Upgrade/Replace	\$1,508,000	\$1,500,000	\$787,549
22	Both Locks - Install Vessel Self Spotting Equipment	\$251,000	\$0	\$0
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	\$201,000	\$0	\$0
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	\$101,000	\$5,000	\$0
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	\$201,000	\$200,000	\$418,000
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	\$201,000	\$200,000	\$33,776
29	Eisenhower Lock - Walls, Sills, and Culverts - Rehabilitate Concrete	\$2,010,000	\$2,000,000	\$209,395
31	Both Locks - Rehabilitate Upstream Miter Gates at Snell (Originally in FY 2010 as ARP No. 2 -- Downstream Gates)	\$0	\$2,800,000	\$2,478,896
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	\$0	\$0	\$12,734
34	Both Locks - Improve Ice Control	\$0	\$0	\$7,462
41	Snell Lock - Install Ice Flushing System Technologies	\$0	\$100,000	\$0
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	\$0	\$0	\$24,183
--	Engineering Design, Construction, Inspection, and Contracting Support	\$306,000	\$0	\$0
--	Miscellaneous Expenses	\$0	\$0	\$443
	Asset Renewal Program Total	\$16,317,000	\$16,317,000	\$16,339,760

Note: (a) Project No. 99 relates to support costs, primarily associated with using third-party service providers, and those costs have now been incorporated in the individual projects obligations.
(b) The SLSDC expended an additional \$635,000 in personnel compensation and benefits from its "Operations and Maintenance" program in FY 2010 for staff time associated with ARP work.
(c) The miscellaneous expenses of \$443 were for ARP-related travel costs by SLSDC personnel that could not be linked to a specific ARP project.

U.S. Seaway Asset Renewal Program Capital Investment Plan FY 2012-2016

Project No.	Project Title	Type of Project (1)	Mission Objective (2)	Time Work Completed (3)	FY 2012 Request	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	FY 2016 Estimate	Five-Year Total
2	Both Locks - Rehabilitate Downstream Miter Gates	CP	L	Winter	\$4,380,000					\$4,380,000
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	CP	L	Other	\$258,000					\$258,000
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	CP	L	Other	\$405,000	\$406,000				\$811,000
8	Floating Navigational Aids - Replace	CP	W	Other	\$61,000	\$61,000	\$62,000	\$62,000	\$62,000	\$308,000
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	CE	L, W	Other	\$255,000	\$255,000	\$256,000	\$258,000	\$259,000	\$1,283,000
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	MP	L	Other	\$20,000	\$20,000	\$21,000	\$21,000	\$21,000	\$103,000
11	Fixed Navigational Aids - Rehabilitate	MP	W	Other	\$100,000	\$204,000	\$205,000	\$206,000	\$207,000	\$922,000
12	Corporation Equipment - Upgrade/Replace Floating Plant	CP/MP	L, W	Other	\$1,524,000		\$18,455,000		\$10,355,000	\$30,334,000
13	Corporation Facilities - Replace Roofs	CP	F	Other	\$230,000	\$300,000	\$500,000	\$500,000		\$1,530,000
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	CP	L, F	Other		\$1,530,000		\$1,546,000		\$3,076,000
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	CP/MP	T/B	Other		\$255,000		\$258,000		\$513,000
16	Seaway System - Upgrade GPS/AIS/TMS Technologies	CP	W	Other		\$102,000		\$103,000		\$205,000
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	MP	W	Other				\$5,152,000		\$5,152,000
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	CP	L, F	Other	\$400,000					\$400,000
22	Both Locks - Install Vessel Self Spotting Equipment	CP	L	Other			\$288,000	\$291,000		\$579,000
23	Both Locks - Install Vessel Vacuum Mooring Systems	CP	L	Winter					\$4,971,000	\$4,971,000
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	MP	L	Other	\$203,000					\$203,000
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	CP	L, F	Other	\$203,000		\$205,000			\$408,000
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	CP	F	Other	\$203,000		\$205,000		\$207,000	\$615,000
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	CP	L	Winter		\$2,040,000			\$2,075,000	\$4,115,000
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	CP	L	Winter				\$3,091,000		\$3,091,000
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	CP	L	Other	\$254,000	\$255,000				\$509,000
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	CP	L	Other	\$152,000	\$153,000	\$154,000	\$155,000		\$614,000
34	Both Locks - Improve Ice Control	CP	L	Winter	\$228,000	\$230,000	\$231,000	\$232,000		\$921,000
35	Vessel Mooring Cells - Rehabilitate and Extend	CP	W	Other		\$1,020,000	\$1,025,000			\$2,045,000
36	Eisenhower Lock - Diffusers - Replace	CP	L	Winter	\$3,045,000					\$3,045,000
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	CP	L, W	Winter				\$800,000		\$800,000
38	Both Locks - Upgrade/Replace Emergency Generators	CP	L	Winter	\$508,000	\$510,000				\$1,018,000

U.S. Seaway Asset Renewal Program Capital Investment Plan FY 2012-2016

Project No.	Project Title	Type of Project (1)	Mission Objective (2)	Time Work Completed (3)	FY 2012 Request	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	FY 2016 Estimate	Five-Year Total
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	CP	L	Other	\$203,000	\$204,000				\$407,000
40	Both Locks - Extend Guidewalls in Pool	CP	L	Other		\$1,530,000		\$1,546,000		\$3,076,000
41	Snell Lock - Install Ice Flushing System Technologies	CP	L	Winter	\$2,000,000	\$5,103,000	\$2,819,000			\$9,922,000
42	Both Locks - Miter Gates - Structural Rehabilitation	CP	L	Winter	\$761,000	\$765,000	\$769,000	\$773,000		\$3,068,000
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	CP	L	Winter	\$1,632,000			\$1,649,000		\$3,281,000
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	CP	L	Winter			\$410,000	\$415,000		\$825,000
45	Flow Control Dikes - Rehabilitate	CP	W	Other				\$515,000		\$515,000
46	Both Locks - Guidewall Extensions - Rehabilitate	CP	L	Other				\$515,000	\$518,000	\$1,033,000
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	CP	L	Winter					\$725,000	\$725,000
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	CP	F	Other	\$50,000	\$50,000				\$100,000
52	Eisenhower Lock Visitors' Center - Replace	CP	F	Other		\$5,000,000				\$5,000,000
					\$17,075,000	\$19,993,000	\$25,605,000	\$18,088,000	\$19,400,000	\$100,161,000

(1) CP=Capital Project; CE=Capital Equipment; MP=Non-Capital Maintenance Project

(2) L=Lock Operation Upgrade and Maintenance; W=Waterway Management; T/B=Tunnel and Bridge Maintenance; F=Facility/Equipment Upgrade and Maintenance

(3) Winter=During Non-Navigation Season; Other=Other Than Non-Navigation Season

Notes: (a) Estimates as of February 2011 and (b) dollar amounts for ARP projects are "project feasibility" estimates that can vary by an industry-recognized contingency of 20-30 percent