U.S. Department of Transportation

BUDGET ESTIMATES

FISCAL YEAR 2014

SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

SUBMITTED FOR THE USE OF
THE COMMITTEES ON APPROPRIATIONS

U.S. DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
FY 2014 PRESIDENT'S BUDGET REQUEST
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Budget Overview

Saint Lawrence Seaway Development Corporation
FY 2014 Budget Request Overview

For Fiscal Year (FY) 2014, the President is requesting an appropriation from the Harbor Maintenance Trust Fund (HMTF) for the Saint Lawrence Seaway Development Corporation (SLSDC) of $32.9 million to fund the operations and maintenance of the U.S. portion of the St. Lawrence Seaway ($17 million) as well as projects supporting the Seaway's Asset Renewal Program (ARP) ($15.9 million). The request represents an increase of $596,000 as compared to the FY 2012 enacted level.

At the request level, the SLSDC will be able to perform its core mission of serving the U.S. intermodal and international transportation system while providing a safe, reliable, efficient, and environmentally responsible deep-draft waterway, in cooperation with its Canadian counterpart, the St. Lawrence Seaway Management Corporation (SLSMC). Primary agency activities include U.S. lock operations and maintenance, vessel traffic control, vessel safety and environmental inspections, trade development, and capital infrastructure replacements and improvements.

SLSDC programs and activities, including the ARP, are principally focused on the Department's "Economic Competitiveness" performance measure of meeting the 99 percent or better goal for U.S. Seaway sector availability. The SLSDC is directly responsible for ensuring the safe, efficient, and secure passage of commercial vessels through the binational St. Lawrence Seaway, and it has consistently maintained a 99 percent availability rate (99.7 percent in FY 2012).

The St. Lawrence Seaway directly serves an eight-state, two-province region that accounts for 28 percent of the U.S. gross domestic product (GDP), 50 percent of North America's manufacturing and services industries, and is home to nearly one-quarter of the continent's population. Since the St. Lawrence Seaway's opening in 1959, more than 2.6 billion metric tons of cargo valued at more than $375 billion have moved through the 15-lock binational waterway. Additionally, maritime commerce on the Great Lakes Seaway System provides shippers with approximately $3.6 billion in annual transportation cost savings compared to the next least expensive mode of transportation.[1]

The waterway also produces significant economic benefits to the Great Lakes region. In fact, an economic impact study concluded that maritime commerce on the Great Lakes Seaway System sustains 227,000 U.S. and Canadian jobs, $35 billion in transportation-related business revenue, $14 billion in personal income, and $5 billion in federal, state, provincial, and local taxes each year.[2] In addition, Great Lakes Seaway System ships remain more fuel-efficient and emit fewer greenhouse gases per thousand cargo-ton miles than land-based alternatives.[3] The Great Lakes/Seaway fleet is nearly 7 times more fuel-efficient than trucks and 1.14 times more fuel-efficient than rail. Moreover, it would take 3 million train trips or 7.1 million truck trips to carry the total cargo transported by the Great Lakes/Seaway fleet in 2010. The SLSDC remains dedicated to promoting the economic and environmental benefits of the marine mode, attracting new cargoes to the Seaway, and leveraging technology to enhance the system's performance and safety.

[1] *Great Lakes Navigation System: Economic Strength to the Nation*, U.S. Army Corps of Engineers, January 2009.
[2] *The Economic Impacts of the Great Lakes St. Lawrence Seaway System*, Martin Associates, October 2011.
[3] *The Environmental and Social Impacts of Marine Transport in the Great Lakes-St. Lawrence Seaway Region*, Research and Traffic Group, January 2013.

Agency Operations

For FY 2014, the President is requesting $17 million and 144 full-time equivalents (FTEs) for the SLSDC's Agency Operations program. The President's Budget request represents an increase of $446,000 compared to the FY 2012 enacted level with no requested change to the SLSDC's FTE total.

At the President's Budget request level, the SLSDC will: (1) continue operating a safe, secure, and efficient commercial trade route with a reliability rate in the U.S. sector of the system of 99 percent or greater through safe and effective operations of the two U.S. Seaway locks and efficient waterway management; (2) continue close coordination and involvement with the Canadian SLSMC to ensure consistent practices and greater economies of scale; and (3) perform safety inspections and ballast water examinations of all foreign-flag vessels entering the St. Lawrence Seaway in Montreal, Quebec, prior to entering U.S. waters.

In addition to these activities, the SLSDC continues to advocate for strict ballast water management efforts to prevent any new introductions of aquatic invasive species via commercial vessels entering Seaway waters. In 2008, the SLSDC implemented regulations jointly with the SLSMC requiring all ships with no ballast in their tanks to conduct saltwater flushing of their empty ballast water tanks before arriving in the Seaway. In addition, the SLSDC, along with other U.S. and Canadian partners, have enforced ballast water inspections of all vessels to ensure these regulations are carried out. This new management regime has been highly effective. In fact, NOAA's Great Lakes Aquatic Nonindigenous Species Information System documents that no new non-native species have been established in the Great Lakes since the new regulations were put in place.

Asset Renewal Program

The $15.9 million request for FY 2014 to fund 22 ARP projects in FY 2014 will address various needs for the two U.S. Seaway locks, operational systems and networks, and Corporation facilities and equipment *(see pages 35-40 for ARP projects and descriptions)*. Most ARP projects are multi-year projects and the FY 2014 President's Budget request includes 19 projects with funding obligated in FYs 2009-2012 and/or planned for FY 2013. Although the majority of ARP work is completed by contractors, the SLSDC federal workforce is directly responsible for completing several maintenance-related projects as well as for completing much of the pre-contract work.

Major ARP projects proposed to be funded in FY 2014 include maintenance dredging of the U.S. waters of the St. Lawrence Seaway ($5.2 million), the upgrade of miter gate machinery at the Seaway locks ($1.8 million), concrete rehabilitation at Eisenhower Lock ($1.5 million), and the continued resurfacing and repairs to the Corporation roadways and paved areas ($1.3 million).

The 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, 73 percent of the ARP funds obligated during the program's first four years, totaling $47.5 million, were awarded within the region. In addition to these contracts, the ARP is producing approximately $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.

The ARP marks the first time since the Seaway's opening in 1959 that a coordinated effort to repair and modernize the U.S. Seaway infrastructure has taken place. None of the ARP investments will result in increases to the authorized depth or width of the navigation channel or to the size of the two existing U.S. locks.

Lowering Costs and Producing Better Results / Campaign to Cut Waste

Since its creation in the 1950s, the SLSDC has managed its funding diligently to ensure that expenditures focus on the highest priority operational programs and initiatives. Today, the SLSDC continues to advance its efforts to identify areas of unnecessary spending or opportunities for greater efficiency or cost savings. In response to Executive Order 13589, the SLSDC has identified the following initiatives aimed at lowering agency costs and producing better results:

Lowering Administrative Costs and Non-Operational Budgets — To maximize its funding for operational programs and initiatives, the SLSDC constantly seeks to meet or exceed its internal performance measure of managing agency administrative expenses as a percentage of all operating costs at 25 percent or less. In FY 2012, the SLSDC exceeded its goal, as the administrative cost percentage was only 22 percent – the ninth consecutive fiscal year that the goal was met or exceeded. On an on-going basis, the SLSDC has implemented a number of activities to achieve the administrative cost ratio goal, including reducing costs associated with supplies and materials and administrative contractual services, and investigating new technologies to reduce administrative overhead costs.

The FY 2013 President's Budget request included a budget reduction of 10 percent for the SLSDC's Office of Trade Development, as compared to the FY 2011 level. The FY 2014 President's Budget request includes an additional 6 percent reduction ($51,000) to the operating budget for the Office of Trade Development, including a 20 percent reduction in staff travel.

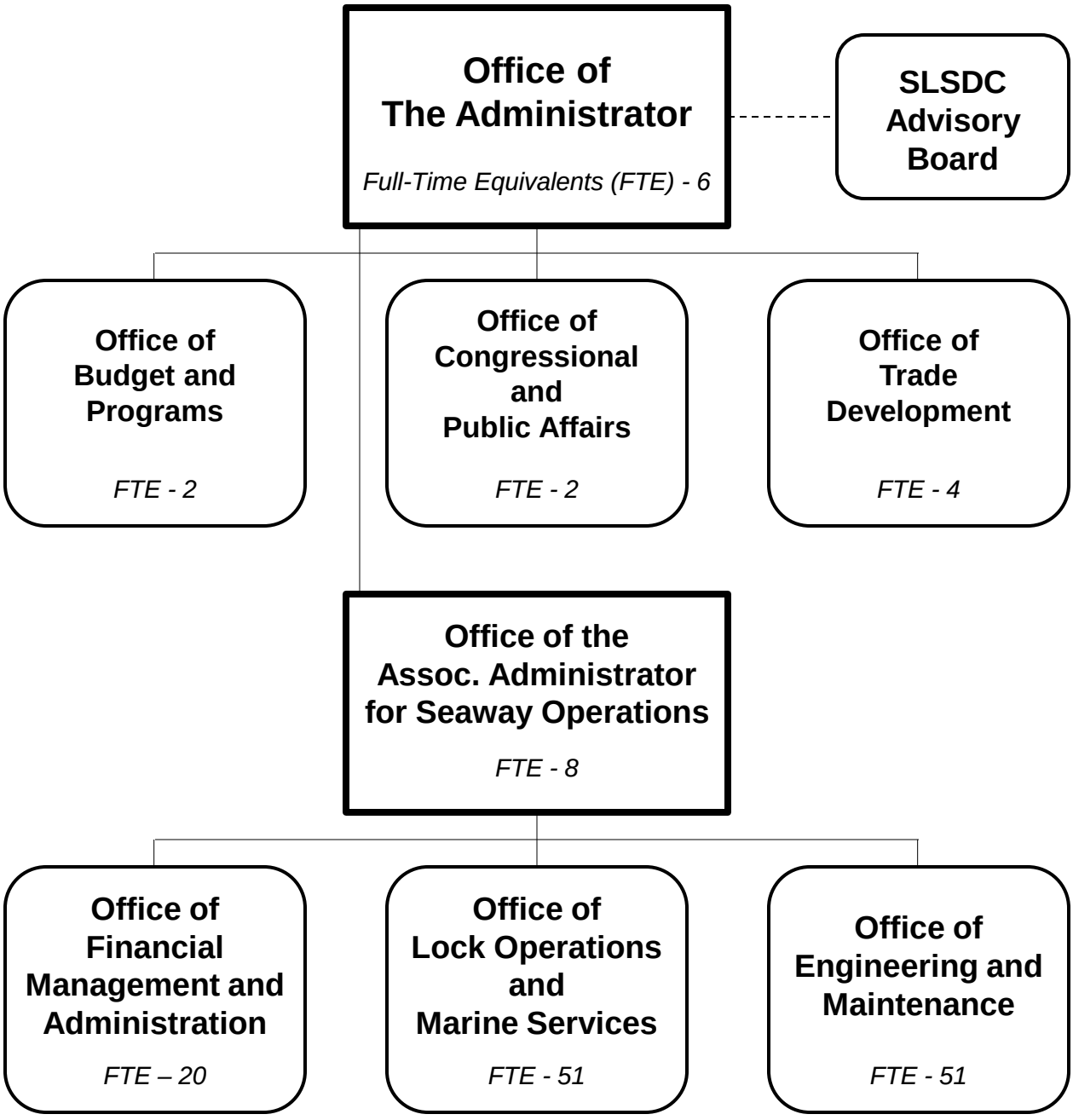
Finally, as part of the "Campaign to Cut Waste" initiative, the SLSDC has identified and proposed budget cuts of 26 percent, or $150,000, in both FYs 2013 and 2014, as compared to the FY 2010 baseline level, to include travel, printing, advisory services contracts, employee IT devices, promotional items, and motor vehicle purchases. The SLSDC plans to maintain this level through at least FY 2016, per the guidance provided by the Office of Management and Budget (OMB) (M-12-12, dated May 11, 2012).

Eliminating Conference-related Travel and Sponsorships — In response to Departmental and Federal guidance, the SLSDC reassessed its proposed and/or planned travel associated with conference attendance and/or sponsorship in 2012 and 2013. Several conference-related trips were cancelled and more are expected to be identified. In addition, ongoing senior-level review of all staff travel spending and/or conference participation will ensure that all Departmental and Federal guidelines and targets are met.

Implementing Succession Planning — The Corporation initiated an intensive succession planning program in 2006 to effectively manage the separation and/or retirement of administrative, operations, maintenance, and management personnel. The SLSDC's succession planning ensures efficient operations while seeking to reduce positions wherever possible and to lower costs associated with personnel compensation and benefits. The program has been successful in reducing the SLSDC's FTE levels by 8 percent since 2006, while ensuring continuity of Seaway operations and maintaining a 99 percent reliability rate for the U.S. Seaway locks and sectors.

Exhibit I

Saint Lawrence Seaway Development Corporation
Organization Chart
FY 2013-14



Budget
Summary Tables

EXHIBIT II-1

FY 2014 COMPARATIVE STATEMENT OF NEW BUDGET AUTHORITY

Saint Lawrence Seaway Development Corporation

Appropriations, Obligation Limitations, and Exempt Obligations

($000)

ACCOUNT NAME	FY 2012 ENACTED	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
Operations and Maintenance - HMTF (69-8003)	$32,259	$32,456	$32,855
TOTAL:	**$32,259**	**$32,456**	**$32,855**

EXHIBIT II-2

FY 2014 TOTAL BUDGETARY RESOURCES BY APPROPRIATIONS ACCOUNT

Saint Lawrence Seaway Development Corporation

Appropriations, Obligation Limitations, and Exempt Obligations

($000)

ACCOUNT NAME	FY 2012 ENACTED	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
Operations and Maintenance - HMTF (69-8003)	$32,259	$32,456	$32,855
TOTAL:	**$32,259**	**$32,456**	**$32,855**

EXHIBIT II-3

FY 2014 BUDGET REQUEST BY STRATEGIC GOAL AND PERFORMANCE GOAL

Saint Lawrence Seaway Development Corporation

Appropriations

($000)

STRATEGIC AND PERFORMANCE GOALS	FY 2012 ENACTED	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
3. ECONOMIC COMPETITIVENESS			
A. Maximum economic returns on transportation policies and investments			
a. Maintain the U.S. St. Lawrence Seaway system and lock availability at 99 percent.	$32,259	$32,456	$32,855
Subtotal Performance Goal	$32,259	$32,456	$32,855
Total - Economic Competitiveness			
TOTAL	**$32,259**	**$32,456**	**$32,855**

EXHIBIT II-3a

FY 2014 BUDGET REQUEST BY DOT OUTCOMES

Saint Lawrence Seaway Development Corporation

($000)

DOT OUTCOME	PROGRAM	FY 2014 REQUEST
ECONOMIC COMPETITIVENESS		
Maximum economic returns on transportation policies and investments	SLSDC Agency Operations	$17,005
	SLSDC Asset Renewal Program	$15,850
	Total - Operations and Maintenance-HMTF (69-8003)	**$32,855**

EXHIBIT II-4

FY 2014 BUDGET AUTHORITY

Saint Lawrence Seaway Development Corporation

($000)

ACCOUNT NAME	FY 2012 ENACTED	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
Operations and Maintenance - HMTF (69-8003)	$32,259	$32,456	$32,855
TOTAL:	**$32,259**	**$32,456**	**$32,855**
Discretionary	$32,259	$32,456	$32,855
Mandatory	$0	$0	$0

EXHIBIT II-5

FY 2014 OUTLAYS

Saint Lawrence Seaway Development Corporation

($000)

ACCOUNT NAME	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
SLSDC Fund (69x4089)	$27,813	$35,047	$35,205
TOTAL:	**$27,813**	**$35,047**	**$35,205**
[Discretionary] (Operations and Maintenance-HMTF -- 69-8003	$32,259	$32,456	$32,855
[Mandatory] (SLSDC Fund -- 69x4089)	($4,446)	$2,591	$2,350

EXHIBIT II-6
SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE
FY 2013 CR Annualized to FY 2014 President's Budget
Appropriations
($000)

Operations and Maintenance - HMTF (69-8003)	FY 2013 CR Annualized	BASELINE CHANGES: FY 2014 Pay Raises*	BASELINE CHANGES: Washington Office Rent	BASELINE CHANGES: Working Capital Fund	BASELINE CHANGES: Non-Pay Inflation	FY 2014 Baseline Estimate	Program Increases/ Decreases	FY 2014 Request
PERSONNEL RESOURCES								
Direct FTEs	144	-	-	-	-	144	-	**144**
FINANCIAL RESOURCES								
ADMINISTRATIVE EXPENSES								
Salaries and Benefits	$3,488	$26	$0	$0	$0	$3,514	$0	**$3,514**
Travel	54	0	0	0	0	54	0	**54**
Transportation of Things	2	0	0	0	0	2	0	**2**
Washington Office Rent	336	0	21	0	0	357	0	**357**
Communications, Rent & Utilities	41	0	0	0	0	41	0	**41**
Printing	10	0	0	0	0	10	0	**10**
Working Capital Fund (WCF)	679	0	0	(21)	0	658	0	**658**
Supplies	31	0	0	0	0	31	0	**31**
Administrative Subtotal	**$4,641**	**$26**	**$21**	**($21)**	**$0**	**$4,667**	**$0**	**$4,667**
PROGRAMS								
Agency Operations	$12,315	$71	$0	$0	$20	$12,406	($68)	**$12,338**
Asset Renewal Program (ARP)	15,500	0	0	0	0	15,500	350	**15,850**
Programs Subtotal	**$27,815**	**$71**	**$0**	**$0**	**$20**	**$27,906**	**$282**	**$28,188**
TOTAL	**$32,456**	**$97**	**$21**	**($21)**	**$20**	**$32,573**	**$282**	**$32,855**

* "FY 2014 Pay Raises" column includes $48,000 for three-quarters of the proposed General Schedule (GS) pay increase of 1.0 percent and $49,000 for a full year of the estimated Wage Grade (WG) pay increase of 1.0 percent.

EXHIBIT II-7

WORKING CAPITAL FUND

Saint Lawrence Seaway Development Corporation

($000)

ACCOUNT NAME	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE
DIRECT:			
Operations and Maintenance - HMTF (69-8003)	$679	$658	($21)
TOTAL:	**$679**	**$658**	**($21)**

EXHIBIT II-8

Saint Lawrence Seaway Development Corporation

PERSONNEL RESOURCE -- SUMMARY

TOTAL FULL-TIME EQUIVALENTS

	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
DIRECT FUNDED BY APPROPRIATION			
Operations and Maintenance - HMTF (69-8003)	127	144	144
TOTAL FTEs:	**127**	**144**	**144**

EXHIBIT II-9

Saint Lawrence Seaway Development Corporation

RESOURCE SUMMARY -- STAFFING

FULL-TIME PERMANENT POSITIONS

	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST
DIRECT FUNDED BY APPROPRIATION			
Operations and Maintenance - HMTF (69-8003)	128	144	144
TOTAL POSITIONS:	**128**	**144**	**144**

Budget Request
by Account

Operations and Maintenance (69-8003)

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APPROPRIATIONS LANGUAGE

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

TRUST FUNDS

OPERATIONS AND MAINTENANCE

(Harbor Maintenance Trust Fund)

For necessary expenses to conduct the operations, maintenance, and capital asset renewal activities of those portions of the St. Lawrence Seaway owned, operated, and maintained by the Saint Lawrence Seaway Development Corporation, $32,855,000, to be derived from the Harbor Maintenance Trust Fund, pursuant to Public Law 99-662.

Note – A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

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EXHIBIT III-1

OPERATIONS AND MAINTENANCE – HMTF (69-8003)
SUMMARY BY PROGRAM ACTIVITY
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

	FY 2012 ENACTED	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE FY 2012-14
Program Activity				
Agency Operations	$16,659	$16,956	$17,005	$ 346
Asset Renewal Program	15,600	15,500	15,850	250
Total	**$32,259**	**$32,456**	**$32,855**	**$ 596**
FTEs	**144**	**144**	**144**	**0**

Program and Performance Statement

The FY 2014 President's Budget request for the SLSDC includes $32.9 million from the Harbor Maintenance Trust Fund (HMTF) to include general agency operations ($17 million) as well as 22 capital and non-capital maintenance projects as part of the sixth year of funding for the SLSDC's multi-year Asset Renewal Program (ARP) ($15.9 million) *(see pages 35-40 for ARP project estimates and descriptions)*.

SLSDC programs and activities, including the ARP, are principally focused on meeting the Department's "Economic Competitiveness" strategic goal. The SLSDC is directly responsible for ensuring the safe, efficient, and secure passage of commercial vessels through the binational St. Lawrence Seaway and it has historically maintained a 99 percent availability rate. The SLSDC remains dedicated to promoting the economic and environmental benefits of the marine mode, attracting new cargoes to the Seaway, and leveraging technology to enhance the system's performance and safety.

EXHIBIT III-1a

OPERATIONS AND MAINTENANCE – HMTF (69-8003)
SUMMARY ANALYSIS OF CHANGE
FY 2013 CR ANNUALIZED TO FY 2014 REQUEST
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ITEM	Change from FY 2013 CR Annualized to FY 2014 Request ($000)	Change from FY 2013 CR Annualized to FY 2014 Request (FTE)
FY 2013 CR ANNUALIZED	**$32,456**	**144**
ADJUSTMENTS TO BASE:		
FY 2014 Wage Grade (WG) Pay Increase	$49	
FY 2014 General Schedule (GS) Pay Increase	48	
Washington Office Rent	25	
Non-Pay Inflation	16	
DOT Working Capital Fund	(21)	
SUBTOTAL, ADJUSTMENTS TO BASE	**$117**	**0**
PROGRAM CHANGES:		
Year Six Asset Renewal Program (ARP)	$350	
"Campaign to Cut Waste" Initiative Reductions	(68)	
SUBTOTAL, PROGRAM CHANGES	**$282**	**0**
INCREASES/DECREASES	**$399**	**0**
FY 2014 REQUEST	**$32,855**	**144**

EXHIBIT III-2

ANNUAL PERFORMANCE RESULTS AND TARGETS
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

The SLSDC integrates performance results into its budget request to demonstrate alignment with the Department of Transportation's Strategic Plan. The SLSDC tracks the following DOT level performance measure to demonstrate program results:

DOT Goal/Outcome: Economic Competitiveness – Maximum economic returns on transportation policies and investments

Seaway System Availability	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Target:	99.0%	99.0%	99.0%	99.0%	99.0%
Actual:	99.8%	99.0%	99.7%	—	—

Detailed Justification for Agency Operations

What Do I Need to Know before Reading this Justification?

- The St. Lawrence Seaway is a binational waterway and lock system, which connects the Great Lakes to the Atlantic Ocean for commercial waterway trade and is jointly operated by the United States (SLSDC) and Canada (St. Lawrence Seaway Management Corporation – SLSMC).
- Both nations made commitments to each other more than 50 years ago through binding international agreements to operate and maintain their respective portions of the waterway.
- Over its history, the St. Lawrence Seaway has moved more than 2.6 billion metric tons of cargo with an estimated value of more than $375 billion. Almost 25 percent of this cargo travels to and from overseas ports.
- SLSDC operations impact 227,000 U.S. and Canadian jobs with associated benefits of $35 billion in annual business revenue from transportation firms and $14 billion in annual wages and salaries[1], and provide approximately $3.6 billion in annual transportation cost savings compared to the next least expensive mode of transportation[2].

What is the Request and What Will We Get for the Funds?

FY 2014 Agency Operations Budget Request
Operations and Maintenance – HMTF (69-8003)
($000)

Program Activity	FY 2012 Enacted	FY 2013 CR Annualized	FY 2014 Request	Difference from FY 2012 Enacted
Agency Operations	$16,659	$16,956	$17,005	$346
Total	**$16,659**	**$16,956**	**$17,005**	**$346**

For FY 2014, the President is requesting $17 million and 144 full-time equivalents (FTEs) for the SLSDC's Agency Operations program. The FY 2014 President's Budget request represents an overall increase of $346,000 compared to the FY 2012 enacted level with no requested change to the FTE level.

Requested baseline increases include: proposed 1 percent annual pay raise for SLSDC unionized wage grade employees; proposed 1 percent annual pay raise for SLSDC general schedule employees; annual rent payment for the SLSDC's Washington, D.C. office space; and 0.5 percent non-pay inflation. The request also includes a baseline decrease in projected SLSDC Working Capital Fund (WCF) expenses.

The Agency Operations budget request also includes program decreases associated with the "Campaign to Cut Waste" initiative. These decreases include reductions to advisory services contracts, travel, and operational expenses of the SLSDC's Office of Trade Development.

[1] *The Economic Impacts of the Great Lakes St. Lawrence Seaway System*, Martin Associates, October 2011.
[2] *Great Lakes Navigation System: Economic Strength to the Nation*, U.S. Army Corps of Engineers, January 2009.

At the request level, the SLSDC will:

(1) Continue operating a safe, secure, and efficient commercial trade route with a reliability rate in the U.S. sector of the system of 99 percent or greater through safe and effective operations of the two U.S. Seaway locks and efficient waterway management.

(2) Continue close coordination and involvement with the Canadian St. Lawrence Seaway Management Corporation (SLSMC) to ensure consistent practices and greater economies of scale.

(3) Perform safety inspections and ballast water examinations of all foreign-flag vessels entering the St. Lawrence Seaway in Montreal, Quebec, prior to entering U.S. waters.

In addition to these activities, the SLSDC continues to advocate strict ballast water management efforts to prevent any new introductions of aquatic invasive species via commercial vessels entering Seaway waters. In 2008, the SLSDC implemented regulations jointly with the SLSMC requiring all ships with no ballast in their tanks to conduct saltwater flushing of their empty ballast water tanks before arriving in the Seaway. The SLSDC, along with the U.S. Coast Guard, Transport Canada, and the SLSMC, have enforced ballast water inspections of all vessels to ensure these regulations are carried out.

In 2012, 100 percent of cargo vessels bound for Great Lakes Seaway System ports received a ballast water or ballast tank exam, marking the fourth consecutive year that 100 percent was reached. During 2012, a total of 6,974 ballast tanks were assessed during 386 vessel transits. Ships that fail to properly manage their ballast tanks are required to either retain the ballast water and residuals on board, treat the ballast water in an environmentally sound and approved manner, or return to sea to conduct a ballast water exchange. Vessels given letters of retention were boarded and checked on their outbound transit at the SLSDC's U.S. Eisenhower Lock in Massena, N.Y. for compliance. All 36 vessels in 2012 that did not exchange ballast water before entering the St. Lawrence Seaway chose to retain their ballast on board and complied with the regulations. This new management regime has been highly effective. In fact, NOAA's Great Lakes Aquatic Nonindigenous Species Information System documents that no new non-native species have been established in the Great Lakes since the new regulations were put in place.

The SLSDC continued to actively participate in the Great Lakes Ballast Water Working Group, along with its U.S. and Canadian ballast water governmental partners. The mission of the BWWG is to harmonize ballast water management efforts between the U.S. and Canadian agencies responsible for management and oversight of waterborne transportation on the Great Lakes Seaway System.

The SLSDC also continues to facilitate the Great Lakes Ballast Water Collaborative (BWC), in conjunction with the International Joint Commission (IJC), to bring together industry and state and federal regulators on the issue of ballast water and invasive species in the region. A particular emphasis of the BWC has been to bring state representatives together with marine industry representatives and respected scientists to find workable and effective solutions to the aquatic invasive species challenge as they relate to the Great Lakes Seaway System.

The BWC has attracted the active participation of more than 100 different U.S. and Canadian senior-level officials and executives, including representatives from state and provincial governments (Illinois, Michigan, Minnesota, New York, Ohio, Wisconsin, and Ontario); U.S. and Canadian regulatory agencies; U.S.-flag laker, Canadian-flag laker, and international fleets; and leading academic ballast water researchers from Canada and the United States.

In the area of operations, the SLSDC continues to explore new and innovative ways to enhance safety and increase shipping efficiencies. In July 2012, the SLSDC and Canadian SLSMC jointly introduced the availability of a new technology to enhance safety and increase cargo-carrying efficiency on the St. Lawrence Seaway by providing mariners with real-time information on current and projected distances between a vessel's keel and river bottoms. Known as the Draft Information System (DIS), the new onboard technology reduces the potential for groundings and allows ships to carry more cargo by better taking advantage of the available water levels. The Seaway was the first inland waterway in the world to implement this technology. Although use of the DIS is currently an optional requirement for transiting the St. Lawrence Seaway, ships equipped with the new technology can travel the binational waterway more safely, with more cargo, at a draft of up to three inches above the published maximum.

As part of the "Campaign to Cut Waste" initiative, the SLSDC has identified budget cuts of 26 percent, or $150,000, in both FYs 2013 and 2014, as compared to the FY 2010 baseline level, to include travel, printing, advisory services contracts, employee IT devices, promotional items, and motor vehicle purchases. The SLSDC plans to maintain this level through at least FY 2016, per the guidance provided by the Office of Management and Budget (OMB) (M-12-12, dated May 11, 2012).

Specifically in the area of travel, the FY 2014 President's Budget request proposes SLSDC discretionary travel reductions of 25 percent ($10,000), as compared to the FY 2010 baseline level. Overall, SLSDC travel estimates for FY 2014 of $200,000 are 15 percent below the FY 2010 baseline.

In identifying agency programs for either elimination or reduction, the FY 2013 President's Budget request included a budget reduction of 10 percent for the SLSDC's Office of Trade Development, as compared to the FY 2011 level. This level of funding marks the lowest budget level for the Office of Trade Development since FY 2006. The FY 2014 President's Budget request includes an additional 6 percent reduction to the operating budget for the Office of Trade Development, including a 20 percent reduction in staff travel.

The SLSDC's principal performance goal is to provide a safe, secure, reliable, and efficient U.S. portion of the St. Lawrence Seaway to its commercial users. The annual goal is 99 percent availability of the U.S. section of the Seaway, including the two U.S. locks, during the annual navigation season (typically late March to late December each year).

During FY 2012, the SLSDC reported a 99.7 percent system availability, meeting its annual target. This goal measures the percent of days in the shipping season that the U.S. portion of the St. Lawrence Seaway is available. This high mark of success is due primarily to the SLSDC's efficient management and operations of the locks and control of vessel traffic.

SLSDC activities associated with the Agency Operations program directly support its core performance measure of system availability and the Department's "Economic Competitiveness" strategic goal and the Department's outcome measure of maximizing economic results on transportation policies and investments.

What is this Program?

The SLSDC's Agency Operations program consists of all agency activities, except for the on-going Asset Renewal Program (ARP) for capital infrastructure replacements and improvements. The Corporation is responsible for the operation and maintenance of the U.S. portion of the binational waterway and lock system for commercial users moving goods to and from the Midwest region of North America.

SLSDC activities associated with the Agency Operations program directly support its core performance measure of system availability and the Department's "Economic Competitiveness" strategic goal and the Department's outcome measure of maximizing economic results on transportation policies and investments.

The SLSDC performs a number of activities each year as part of the Agency Operations program:

Lock Operations and Marine Services – Lock Operations and vessel traffic control on the St. Lawrence Seaway are conducted on a 24-hour day, 7-day week basis throughout the shipping season (typically late March to late December each year). Marine operations consist of commissioning and decommissioning aids to navigation, channel dredging and maintenance, tugboat and other floating equipment services, as well as vessel safety inspections and ballast water examinations.

Engineering and Maintenance – The Corporation facilities must be maintained in efficient operating condition. Facilities include: locks and guidewalls; roads; an international bridge; a highway tunnel; channels; public use facilities, such as the Eisenhower Lock Visitors' Center; navigation aids; buildings, grounds, and utilities; and permanent operating equipment. Major maintenance/asset rehabilitation on existing facilities will continue to be performed during the non-navigation winter months as part of the SLSDC's ARP.

Trade Development – The Corporation engages in activities designed to increase public and commercial awareness of the Seaway. This includes the costs associated with initiatives aimed at identifying new trade markets for, and increasing use of, the Great Lakes Seaway System.

Administrative – Executive management and administration of the Corporation includes legal, civil rights, financial management, procurement, information technology, human resources, budget, performance, public relations, and other related administrative support services.

Approximately 80 percent of the Agency Operations program budget funds personnel compensation and benefits. The remaining 20 percent of funds are used for programmatic activities and non-capital and minor capital maintenance of the locks and facilities, vessel traffic control, equipment, supplies, vessel safety and environmental inspections, and marketing activities.

The Agency Operations program is broken down into two categories — operational and administrative. To maximize its funding for operational programs and initiatives, the SLSDC constantly seeks to meet or exceed its internal performance measure of managing agency administrative expenses as a percentage of all operating costs at 25 percent or less. In FY 2012, the SLSDC exceeded its goal, as the administrative cost percentage was 22 percent – the ninth consecutive fiscal year that the goal was met. Administrative expenses totaled $3.5 million in FY 2012. On an on-going basis, the SLSDC has implemented a number of activities to achieve the administrative cost ratio goal, including reducing costs associated with supplies and materials and administrative contractual services, and investigating new technologies to reduce administrative overhead costs.

In addition, the Corporation initiated an intensive succession planning program in 2006 to effectively manage the separation and/or retirement of administrative and management personnel to ensure efficient operations, while seeking to reduce positions wherever possible and to lower costs associated with personnel compensation and benefits. The program has been successful in reducing the SLSDC's FTE levels by 8 percent since 2006, while ensuring continuity of Seaway operations and maintaining a 99 percent reliability rate for the U.S. Seaway locks and sectors.

FY 2013 Base: The FY 2013 CR Annualized level for the SLSDC's Agency Operations program is $17 million.

Anticipated FY 2013 Accomplishments: In FY 2013, the SLSDC will:

- Provide a safe, secure, and efficient commercial trade route with a reliability rate of 99 percent or greater through vessel traffic control operations and infrastructure maintenance.

- Continue close coordination and involvement with the Canadian SLSMC in all aspects of Seaway operations and trade development to ensure consistent practices and greater economies of scale. The two agencies will continue to work cooperatively on the vessel inspection procedures of foreign-flagged vessels, invasive species activities affecting the Great Lakes Seaway System, and binational trade development initiatives including the Highway H_20 program and Short Sea Shipping activities.

- Perform safety inspections and ballast water exams of all foreign-flag vessels entering the St. Lawrence Seaway in Montreal, Quebec, prior to entering U.S. waters.

- Use and enhance technologies to more efficiently manage vessel traffic control and lock transits, including the Global Positioning System/Automatic Identification System (GPS/AIS) vessel traffic system, of which the St. Lawrence Seaway was the first inland waterway in the western hemisphere to use. The SLSDC will continue to develop its DIS for enhanced safety and cargo carrying efficiency.

- Participate in various federal and department-wide activities, including electronic payroll and training, cyber security, disaster management, and automated staffing.

Why Is This Particular Program Necessary?

The SLSDC is responsible for the operations and maintenance of the U.S. portion of the binational St. Lawrence Seaway, including the two U.S. Seaway locks in Massena, N.Y. The mission of the Corporation, which is directly linked to this program, is to serve the U.S. intermodal and international transportation system through the operation and maintenance of a safe, reliable, efficient, and environmentally responsible deep-draft waterway, in cooperation with its Canadian counterpart. The SLSDC also encourages the development of trade through the Great Lakes St. Lawrence Seaway System, which contributes to the comprehensive economic development of the entire Great Lakes region.

On average, 40-50 million metric tons of cargo are transported on the St. Lawrence Seaway annually to and from more than 50 nations. Principal commodities include grain, iron ore, coal, finished iron and steel products, and heavy and over dimensional equipment (project cargoes). The St. Lawrence Seaway directly serves an eight-state, two-province region that accounts for 28 percent of the U.S. gross domestic product (GDP), 50 percent of North America's manufacturing and services industries, and is home to nearly one-quarter of the continent's population. In fact, maritime commerce on the Great Lakes Seaway System impacts 227,000 U.S. and Canadian jobs with associated benefits of $35 billion in annual business revenue from transportation firms and $14 billion in annual wages and salaries [3], and provides approximately $3.6 billion in annual transportation cost savings compared to the next least expensive mode of transportation[4]. Over its history, the St. Lawrence Seaway has handled more than 2.6 billion metric tons of cargo valued in excess of $375 billion.

Great Lakes Seaway System ships also remain more fuel-efficient and emit fewer greenhouse gases per thousand cargo-ton miles than land-based alternatives. The Great Lakes/Seaway fleet is nearly 7 times more fuel-efficient than trucks and 1.14 times more fuel-efficient than rail. Moreover, it would take 3 million train trips or 7.1 million truck trips to carry the total cargo transported by the Great Lakes/Seaway fleet in 2010.[5]

There are no viable alternatives to this program. By law, the SLSDC is required to operate and maintain its portion of the St. Lawrence Seaway with an identical legislative mandate in Canada for the SLSMC. In addition to these legislative authorities, both nations also executed an Exchange of Notes in 1952 and 1954 establishing the terms of constructing, managing, and operating the Seaway jointly. These diplomatic notes, which have the full force and effect of a treaty between the two countries, have remained in effect since their official exchange. The SLSDC remains committed to fulfilling this binding international obligation.

How Do You Know the Program Works?

Since opening in 1959, the SLSDC has consistently maintained a 99 percent reliability rate for its locks and the U.S. sector of the waterway. This high mark of success is due primarily to the SLSDC's efficient management and operations of the locks and control of vessel traffic. Global customers from more than 50 nations return each year to use the Seaway because of the

[3] *The Economic Impacts of the Great Lakes St. Lawrence Seaway System*, Martin Associates, October 2011.
[4] *Great Lakes Navigation System: Economic Strength to the Nation*, U.S. Army Corps of Engineers, January 2009.
[5] *The Environmental and Social Impacts of Marine Transport in the Great Lakes-St. Lawrence Seaway Region*, Research and Traffic Group, January 2013.

waterway's strong safety record, efficient operations, and near-perfect reliability rate — all program outcomes of the SLSDC's Agency Operations program.

In 1998, the SLSDC began the process of measuring the success of its Agency Operations program by certifying its operational business practices through the internationally recognized International Standards Organization (ISO). The ISO recognition is only conferred on those service firms and organizations that meet the highest quality customer service and management standards set by the Geneva, Switzerland-based ISO.

In July 2012, the SLSDC successfully completed a two-day surveillance audit of its ISO 9001:2008 certified quality management system, conducted by Lloyds Register of Quality Assurance, an independent accrediting agency. The ISO 9001:2008 standard focuses on self assessment, ongoing improvements, and performance metrics. The SLSDC's certification is internationally recognized and complements the agency's marketing and trade development efforts overseas.

Maintaining the ISO certification has kept agency officials focused on finding better ways of operating the waterway and on recognizing how agency initiatives and decisions affect its internal and external customers. Other benefits of the SLSDC's ISO certification include improved communications within the organization, redefined business processes that are clearly understood by employees, and integrated performance measurements and objectives with the agency's mission. As part of its ISO certification, the SLSDC and the Canadian SLSMC actively reach out to the Seaway's commercial user community throughout the year to obtain feedback, discuss new programs, and examine ways of improving operations.

In addition, the program received high marks in the area of financial management. In October 2012, the SLSDC received an unqualified opinion of its financial statements for FY 2012 with no material weaknesses or reportable conditions. The FY 2012 audit marked the 49th consecutive unqualified opinion or clean audit report for the Corporation.

Achievements in the area of financial management, which have been a hallmark for the Corporation historically, are due to strong internal controls and management of financial activities and fiscal policies.

Why Do We Want/Need to Fund the Program at the Requested Level?

The requested level will provide the SLSDC with the financial and personnel resources necessary to perform the operational, maintenance, and administrative functions of the agency, including lock operations, marine services, vessel traffic control, asset maintenance, ballast water management, safety and environmental inspections, and trade development. The Corporation has made a concerted effort in recent years to reduce program expenses while ensuring that program activities are performed at or above performance targets and within budgetary limits.

The SLSDC remains dedicated to promoting the economic and environmental benefits of the marine mode, attracting new cargoes to the Seaway, and leveraging technology to enhance the system's performance and safety.

Detailed Justification for Asset Renewal Program[1]

What Do I Need to Know before Reading this Justification?

- The FY 2014 President's Budget request for the SLSDC's Asset Renewal Program (ARP) is for the sixth year of funding of an originally scheduled 10-year program.
- The ARP is needed to sustain a safe and reliable transportation route for the movement of commercial goods to and from the Great Lakes region of North America.
- 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.
- The estimated economic losses associated with a shutdown of either of the two U.S. locks ranges from $1.3-$2.3 million per day, depending on the length of the delay. In addition, the availability of the Great Lakes Seaway System provides shippers $3.6 billion in annual transportation cost savings compared to the next least expensive mode.
- Seventy-three percent of the ARP funds obligated during the program's first four years, totaling $47.5 million, were awarded within the Upstate New York region. In addition to these contracts, the ARP is producing approximately $2.5 million in additional economic benefits to the region each year.
- Through the ARP's first four years (FYs 2009-12), the Corporation obligated $65.5 million on 40 separate ARP projects and was able to maintain the original schedule and overall cost estimates.

What is the Request and What Will We Get for the Funds?

FY 2014 Asset Renewal Program Budget Request
Operations and Maintenance – HMTF (69-8003)
($000)

Program Activity	FY 2012 Enacted	FY 2013 CR Annualized	FY 2014 Request	Difference from FY 2012 Enacted
Asset Renewal Program	$15,600	$15,500	$15,850	$250
Total	**$15,600**	**$15,500**	**$15,850**	**$250**

The $15.9 million included in the FY 2014 President's Budget request to fund 22 SLSDC ARP projects in FY 2014 will address various needs for the two U.S. Seaway locks, operational systems and networks, and Corporation facilities and equipment *(see pages 35-40 for ARP projects and descriptions)*. Most ARP projects are multi-year projects and the FY 2014 President's Budget request includes 19 projects with funding obligated in FYs 2009-2012 and/or planned for FY 2013. Although the majority of ARP work is completed by contractors, the SLSDC federal workforce is directly responsible for completing several maintenance-related projects as well as for completing much of the pre-contract work, including preparation of designs, specifications, drawings, and cost estimates. Since 2009 when the ARP was launched, the SLSDC has been able to effectively manage this program without any significant increase to staff levels.

[1] Information on the SLSDC's ARP, including annual capital investment plans and semiannual reports to the Congress, can be found at http://www.greatlakes-seaway.com/en/management/slsdc/asset/index.html.

Major ARP projects proposed to be funded in FY 2014 include maintenance dredging of the U.S. waters of the St. Lawrence Seaway ($5.2 million), the upgrade of miter gate machinery at the Seaway locks ($1.8 million), concrete rehabilitation at Eisenhower Lock ($1.5 million), and the continued resurfacing and repairs to the Corporation roadways and paved areas ($1.3 million).

Original ARP project estimates were developed by the SLSDC using 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 for similar work it completed at other U.S. locks, (3) consultation with the Canadian St. Lawrence Seaway Management Corporation (SLSMC) for similar work completed at the Canadian Seaway locks, and (4) utilization of data from RSMeans®, which serves as a supplier of construction cost information. In several cases, estimates for FY 2014 have been revised based on either actual bids for similar ARP work and/or more complete designs. None of the ARP investments will result in increases to the authorized depth or width of the navigation channel or to the size of the two existing U.S. Seaway locks.

SLSDC ARP activities directly support its core performance measure of system availability and the Department's "Economic Competitiveness" strategic goal and the Department's outcome measure of maximizing economic results on transportation policies and investments.

What is the Program?

With the enactment of the FY 2009 Omnibus Appropriations Act, the SLSDC's ARP was initiated. The program focuses on improving aging Seaway infrastructure, conducting maintenance dredging, investing in new technologies, purchasing new equipment, and refurbishing old facilities. The ARP is the first major effort to rehabilitate and modernize the U.S. Seaway infrastructure in the waterway's history.

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.

The goal of the Seaway's ARP is to ensure the long-term structural integrity of the Seaway infrastructure that, in most cases, has reached the end of the original "design" life. In addition to supporting the SLSDC's performance goals, the ARP also advances several key Department priorities, specifically, system performance and reliability, economic competitiveness, and congestion mitigation. The Seaway infrastructure has been a model of performance and reliability – achieving a 99 percent or better reliability rate in four out of the last five navigation seasons. Adequate capital reinvestment in the Seaway infrastructure is critical to maintaining its exceptional reliability record.

In the first four years of ARP funding (FYs 2009-2012), the SLSDC obligated $65.5 million on 40 separate ARP projects. 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 upstream miter gate rehabilitation, as well as various other structural and equipment repairs and/or replacement. FY 2013 ARP obligations are estimated at $16 million.

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, 73 percent of the ARP funds obligated during the program's first four years, totaling $47.5 million, were awarded within the region. In addition to these contracts, the ARP is producing approximately $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.

The completion of ARP projects will extend the life of the U.S. Seaway infrastructure and reduce the risk of system delays to commercial navigation caused by lock equipment malfunction and degradation over time. In addition, several ARP projects will involve the implementation of new and improved technologies for the operation of the Seaway infrastructure, which will result in minimized maintenance needs and improved efficiencies.

In FY 2012, the SLSDC completed its first year of large-scale ARP winter work projects. SLSDC employees, as well as eight contractor firms, seven of which were from Upstate New York, completed six ARP infrastructure projects at the two U.S. locks. The number of workers represented the largest number to work on the Seaway locks since their construction in the 1950s. Major ARP projects completed included the upstream Snell Lock miter gate rehabilitation, the vertical lift gate improvements at the Eisenhower Lock, and the upstream culvert valve machinery hydraulic upgrades at both locks. All of the projects, as well as numerous other winter preventative maintenance projects, were completed on time. The total number of work man-hours lost due to safety-related incidents represented only one-quarter of 1 percent (0.272%) for work spanning three months and comprising over 50,000 documented work man-hours.

The SLSDC's ARP closely coordinates with infrastructure renewal work completed or planned by the Canadian SLSMC and supports the engineering considerations highlighted in the November 2007 binational *Great Lakes St. Lawrence Seaway Study*. The study, which was completed with the support of the U.S. Army Corps of Engineers (USACE), Transport Canada, Canadian SLSMC, Environment Canada, U.S. Fish and Wildlife Service, and DOT's Office of the Secretary, Maritime Administration, and SLSDC, evaluated the infrastructure needs of the U.S. and Canadian Great Lakes Seaway System and assessed the economic, environmental, and engineering implications of those needs pertaining to commercial navigation. As part of its ARP planning and implementation processes, the SLSDC is working closely with the SLSMC and USACE to leverage their expertise.

The Canadian Seaway locks along the St. Lawrence River are identical in age and design to those owned by the U.S. SLSDC. In the past decade prior to the SLSDC's ARP, the Canadian Government began addressing its own Seaway asset capital reinvestment needs. Over the past seven years, the SLSDC and SLSMC have spent nearly $500 million on asset renewal efforts. 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. Many of the lock-related ARP improvements at the U.S. locks will parallel activities either completed, underway, or planned at the Canadian Seaway locks.

FY 2013 Base: The FY 2013 CR Annualized level for the SLSDC's ARP is $15.5 million.

Anticipated FY 2013 Accomplishments: During FY 2013, the SLSDC's Office of Engineering and Maintenance will complete engineering specifications and plans, permitting and environmental studies *(as applicable)*, and contractual obligations for FY 2013 ARP projects. Major ARP projects that are planned for funding in FY 2013 include: rehabilitation of the downstream miter gate at Snell Lock ($3 million); concrete replacement at Eisenhower Lock ($2 million); structural rehabilitation of miter gate machinery ($2 million); and rehabilitation of the spare gate storage and assembly area ($1 million). The Corporation's Office of Financial Management and Administration and Office of Budget and Programs also support this initiative.

In addition, during the winter months of FY 2013, work on several of the larger lock-related ARP projects funded in earlier fiscal years will be completed, including the installation of an ice flushing system at Snell Lock and downstream miter gate rehabilitation at Eisenhower Lock. This timeframe is due to the significant lead time required to deliver and install ARP machinery during the non-navigation winter months (typically late December to late March each year). Work is also expected to be completed for those FY 2013 ARP projects that are not components of previously funded ARP projects requires long lead-times for delivery, installation, and/or construction.

Why Is This Particular Program Necessary?

The goal of the Seaway's ARP is to ensure the long-term structural integrity of the Seaway infrastructure. After more than 50 years of continuous operation in often harsh weather conditions, the Seaway infrastructure needs to be rehabilitated to continue this level of performance and reliability for the next half century.

The infrastructure and engineering recommendations of the *Great Lakes St. Lawrence Seaway Study* were the genesis of the ARP's creation. During its work on the study, the SLSDC measured its infrastructure assets using a USACE-based lock criticality index to better identify and prioritize maintenance and asset renewal needs. The results of the index were used to develop the ARP.

Unlike many of the other lock-based waterway systems in the world, which have twinned locks to ensure continued operations in the event of a lock failure, the St. Lawrence Seaway is a single-lock system. A delay or shutdown at any one of the 15 U.S. or Canadian Seaway locks would cause system-wide delays. The estimated economic losses associated with a shutdown of either of the two U.S. locks ranges from $1.3-$2.3 million per day, depending on 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 the shippers at that time of more than $24 million ($52 million in 2012 dollars). In addition, the availability of the Great Lakes Seaway System provides $3.6 billion in annual transportation cost savings compared to the next

least expensive mode of transportation[2]. The ARP program is vital to ensuring system availability and the flow of goods via the St. Lawrence Seaway in the decades to come.

There is a delicate balance between preserving the existing locks, channels, and associated infrastructure, and ensuring their safety and reliability at all times. There is a critical point where regular maintenance and repairs are no longer sufficient and decisions on major rehabilitation or replacement of structures is required. The longer decisions are extended, the higher the risk to the safety of the locks and to other Seaway infrastructure, greatly increasing associated costs. The ARP enables the SLSDC to achieve this balance and to address major rehabilitation and replacement needs in a timely fashion.

In addition to the aging infrastructure needs and economic benefits of this program, the international agreements entered into by the United States and Canada in the 1950s necessitate that the two countries jointly operate and maintain the St. Lawrence Seaway and its physical assets. Over the past 10-15 years, the Canadian government has begun to address the asset renewal needs of its 13 Seaway locks, eight of which are more than 75 years old (located at the Welland Canal). The SLSDC's ARP functions as the nation's commitment to the long-standing agreement to jointly operate and maintain the binational waterway for commerce in the years to come.

How Do You Know the Program Works?

In 2008, the SLSDC created the Seaway ARP Internal Working Group, made up of senior managers in engineering, procurement, financial management, budget, counsel, and policy, to ensure that the multi-year program is executed properly and efficiently and to identify any possible concerns early in the process. The group convenes every two weeks to review the status of ARP projects and to collectively discuss ways to improve the overall management, execution, and reporting of the program on an ongoing basis.

In May 2010, the Government Accountability Office (GAO) completed its review of the SLSDC's ARP cost estimating process. The review was in response to a congressional mandate contained in P.L. 111-8, Omnibus Appropriations Act, 2009, and focused on three areas: (1) how the SLSDC developed and estimated the costs of projects in its ARP; (2) to what extent the ARP covered 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.

GAO found that the SLSDC's ARP adequately addressed capitalization needs and that the plan supported the efforts underway or planned in Canada, but that agency cost estimating could be improved. GAO recommended that the SLSDC develop a cost-estimating process that follows federal best practices to better ensure that its estimates are comprehensive, well documented, accurate, and credible.

Following the issuance of the GAO report, the SLSDC immediately completed an internal review of the GAO Cost Estimating and Assessment Guide to identify "best practices" that could be used by SLSDC cost estimators. The SLSDC instituted several new cost estimating processes

[2] *Great Lakes Navigation System: Economic Strength to the Nation*, U.S. Army Corps of Engineers, January 2009.

in its procedures to further improve the quality and accuracy of ARP cost estimates. Following the implementation of new cost estimating processes, ARP contracts improved, ranging from 23 percent less to 40 percent greater than estimates. The importance of the cost estimates has been stressed and cost estimates have included better documentation of the sources and assumptions used, providing more clearly defined estimates. In FY 2011, GAO officials announced that it considers the review "closed-implemented".

Why Do We Want/Need to Fund the Program at the Requested Level?

Nearly every ARP project is a multi-year initiative; only 10 of the 61 current ARP projects are standalone, single-year projects. Through the program's first four years (FYs 2009-12), the Corporation has been able to maintain the original schedule and overall cost estimates. Any reductions from the current estimates will increase the program's overall costs while requiring additional years for the program to be completed.

FY 2014 U.S. Seaway Asset Renewal Program (ARP) Projects

ARP Project Number	Project Name	FY 2014 Request
8	Floating Navigational Aids – Replace	**$ 65,000**
9	Corporation Equipment – Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	**260,000**
10	Both Locks – Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	**20,000**
11	Fixed Navigational Aids – Rehabilitate	**200,000**
13	Corporation Facilities – Replace Roofs	**500,000**
14	Corporation Facilities – Replace Paving and Drainage Infrastructure	**1,300,000**
17	Navigation Channels – Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	**5,150,000**
22	Both Locks – Install Vessel Self Spotting Equipment	**300,000**
26	Corporation Facilities – Upgrade Storage for Lock Spare Parts	**200,000**
27	Corporation Facilities – Replace Windows and Doors and Repair Building Facades	**200,000**
29	Eisenhower Lock – Walls, Sills and Culverts – Rehabilitate Concrete	**1,500,000**
33	Both Locks – Upgrade Drainage Infrastructure in Galleries and Recesses	**150,000**
34	Both Locks – Improve Ice Control	**230,000**
35	Vessel Mooring Cells – Rehabilitate and Extend	**1,020,000**
42	Both Locks – Miter Gates – Structural Rehabilitation	**1,295,000**
43	Both Locks – Miter Gate Machinery – Upgrade/Replace	**1,750,000**
44	Both Locks – Ship Arrestor Machinery – Upgrade/Replace	**410,000**
51	Corporation Facilities – Upgrade Physical Security to Meet HSPD-12 Requirements	**100,000**
52	Corporation Facilities – Eisenhower Lock Visitors' Center – Upgrade	**500,000**
58	Corporation Facilities – Upgrades to Meet Sustainability and Energy Goals	**100,000**
60	Both Locks – Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	**500,000**
61	Both Locks – Replace Recess Covers on Lock Walls	**100,000**
	***ARP Totals (22 projects)*:**	**$15,850,000**

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 conditioning 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.

Dollar amounts for ARP projects are "project feasibility" estimates and can vary by an industry-recognized 20-30 percent. Funding for each year of the ARP is constrained to targets for those years as approved by the Office of Management and Budget (OMB). Project estimates and schedules may fluctuate at various points in the lifespan of the ARP and will be revised as needed.

(1) **ARP Project No. 8: Floating Navigational Aids – Upgrade/Replace (Capital Project) ($65,000)** – This is an ongoing program to replace floating navigational aids/buoys and winter markers that have been damaged over the years, on an as required basis. The Corporation owns and is responsible for approximately 100 buoys and 50 winter markers. *(Project funds obligated in FY 2009 and FY 2010, and additional obligations are planned in FY 2013)*

(2) **ARP Project No. 9: Corporation Equipment – Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment (Capital Equipment, Capital Project, and Non-Capital Maintenance Project) ($260,000)** – 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 includes items such as a crane, dump truck, snow plow, backhoe, grader, front end loader and shop equipment such as a lathe, milling machine and drill press. Equipment and vehicles are inspected regularly and their replacement is prioritized based on the results of those inspections. (*Project funds obligated in FY 2009, FY 2010, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(3) **ARP Project No. 10: Both Locks – Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities (Non-Capital Maintenance Project) ($20,000)** – This project is for upgrading the infrastructure that supplies power to Eisenhower and Snell Locks and to the Corporation's Maintenance Facility. This work is performed by the New York Power Authority under a reimbursable agreement with the SLSDC. The power is furnished directly from the Moses-Saunders Power Dam over infrastructure that is nearly 50 years old. The occasional loss of power from the 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. (*Project funds obligated in FY 2009, FY 2010, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(4) **ARP Project No. 11: Fixed Navigational Aids – Rehabilitate (Capital Project and Non-Capital Maintenance Project) ($200,000)** – 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 comprehensive repairs. Many of these structures have concrete bases which are partially underwater and have experienced varying degrees of damage from water, ice, and freeze-thaw cycles. Failure of a fixed aid would likely make it necessary to replace it which would cost significantly more than repairing the existing structure. *(Project funds obligated in FY 2010, FY 2011, and FY 2012)*

(5) **<u>ARP Project No. 13</u>: Corporation Facilities – Replace Roofs (Capital Project) ($500,000)** – This project is for replacing the roofs on the Corporation's various buildings and facilities in Massena, N.Y., as required. Most of the roofs are currently insulated ethylene propylene diene monomer (EPDM) roofs with a service life of 10-15 years and have reached the end of that time frame. Annually, roofs are inspected and repaired as required. The results of these inspections and the frequency and severity of the repairs required determine the priority for their replacement. At this time, plans are to replace the lower roof at the Maintenance Building in FY 2014. *(Project funds obligated in FY 2009, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(6) **<u>ARP Project No. 14</u>: Corporation Facilities – Replace Paving and Drainage Infrastructure (Capital Project) ($1,300,000)** – This project is for improving the pavement and drainage along lock approach walls as well as the roadways, public parking, and work areas at all Corporation facilities. In Upstate New York, the damage to pavements caused by winter conditions is significant. If repairs are not made before the damage is too severe, complete replacement of the pavement down to and often including the base materials is required at a much higher cost. In FY 2014, the SLSDC will continue the work it started in FY 2009 to address the most critical areas remaining. *(Project funds obligated in FY 2009 (combined with ARP Project No. 3), FY 2010, and FY 2011, and additional obligations are planned in FY 2013)*

(7) **<u>ARP Project No. 17</u>: Corporation Facilities – Navigation Channels – Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments (Non-Capital Maintenance Project) ($5,150,000)** – This project is for dredging of the navigation channel to remove sediment and to maintain the design grade for the channel bottom. In FY 2009, the SLSDC awarded an ARP contract to complete maintenance dredging for both the intermediate pool (between Eisenhower and Snell Locks) and the international tangent section to the east of Snell Lock. The dredging in the intermediate pool is essentially complete; however, some high spots comprised of very hard material remain, which will require removal in the future. FY 2014 funding will address the remaining high spots and begin work on other sections of the St. Lawrence River under U.S. jurisdiction that require maintenance dredging. *(Project funds obligated in FY 2009, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(8) **<u>ARP Project No. 22</u>: Both Locks – Install Vessel Self Spotting Equipment (Capital Project) ($300,000) –** This project is for installing equipment at the U.S. Seaway locks such that transiting vessels can spot/locate themselves in the lock. This new technology, once fully implemented, will eliminate the need for Lock Operations' personnel to spot vessels in a lock. The Canadian St. Lawrence Seaway Management Corporation (SLSMC) has already completed testing and installation of this new technology at their locks. *(Obligations are planned in FY 2013)*

(9) **<u>ARP Project No. 26</u>: Corporation Facilities – Upgrade Storage for Lock Spare Parts (Capital Project) ($200,000)** – This project is for constructing shelters/buildings for storage of lock spare parts and equipment to prevent them from corroding. Many of these items are currently not stored under cover and/or are stored in old storage sheds that are in need of repair or replacement. *(Project funds obligated in FY 2010 and FY 2011, and additional obligations are planned in FY 2013)*

(10) **<u>ARP Project No. 27</u>: Corporation Facilities – Replace Windows and Doors and Repair Building Facades (Capital Project) ($200,000) –** 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. *(Project funds obligated in FY 2010, FY 2011, and FY 2012)*

(11) **<u>ARP Project No. 29</u>: Eisenhower Lock – Walls, Sills and Culverts – Rehabilitate Concrete (Capital Project) ($1,500,000)** –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 and concrete that has been damaged by freeze-thaw cycles and by vessel impacts. This project includes resurfacing the mass concrete that forms the locks walls as well as filling and emptying culverts and the gate sills by replacing concrete to depths ranging between approximately 8 inches and 24 inches. *(Project funds obligated in FY 2010 and additional obligations are planned in FY 2013)*

(12) **<u>ARP Project No. 33</u>: Both Locks – Upgrade Drainage Infrastructure in Galleries and Recesses (Capital Project) ($150,000)** – This project is to open existing drains and/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 causing flooding of the galleries and machinery recesses. *(Obligations are planned in FY 2013)*

(13) **<u>ARP Project No. 34</u>: Both Locks – Improve Ice Control (Capital Project) ($230,000)** – This project is to improve the methods/equipment utilized to control ice in and around Eisenhower and Snell Locks during the opening and closing of each navigation season. Currently air curtains and bubblers are utilized to minimize the ice entering a lock chamber and to move it away from the miter gates. Backhoes are used for removing ice from the lock walls, which reduces the width available for transiting vessels. Improvements to existing systems/equipment as well as utilizing new technologies would make operations more efficient and would minimize damages to the lock components and transiting vessels in the presence of ice and icy water. *(Project funds obligated in FY 2010)*

(14) **<u>ARP Project No. 35</u>: Vessel Mooring Cells – Rehabilitate and Extend (Capital Project) ($1,020,000)** – This project is for rehabilitating and extending the vessel mooring cells upstream of Eisenhower Lock and in the Intermediate Pool between the locks. These mooring cells are used by vessels with problems during navigation and/or to secure vessels for inspections. The existing cells are more than 50 years old, are in a state of disrepair, and are too short for current Seaway length vessels. *(Obligations are planned in FY 2013)*

(15) **<u>ARP Project No. 42</u>: Both Locks – Miter Gates – Structural Rehabilitation (Capital Project) ($1,295,000)** – This project is to blast clean and paint the miter gates at both locks to prevent further corrosion of these structures. They were last cleaned and painted 30 years ago. FY 2014 funding will address the corrosion problems at the upstream miter gate at Snell Lock. *(Funds obligated in FY 2012 and additional obligations are planned in FY 2013)*

(16) **<u>ARP Project No. 43</u>: Both Locks – Miter Gate Machinery – Upgrade/Replace (Capital Project) ($1,750,000) –** This project is for replacing the operating machinery for the miter gates at both locks. This machinery is more than 50 years old and needs to be upgraded to insure its continued reliability. The upgrade will include new hydraulic operating equipment to match the improvements made at the Canadian Seaway locks and the other locks in the United States. *(Funds obligated in FY 2011 and FY 2012)*

(17) **<u>ARP Project No. 44</u>: Both Locks – Ship Arrestor Machinery – Upgrade/Replace (Capital Project) ($410,000) –** This project is for replacing the operating machinery for the ship arrestors at both Eisenhower and Snell Locks. The ship arrestors protect the miter gates from damage that would be caused should a vessel malfunction, making it unable to stop. This operating machinery is more than 50 years old and needs to be upgraded to insure continued reliability. FY 2014 funding will address the ship arrestor machinery at Eisenhower Lock.

(18) **<u>ARP Project No. 51</u>: Corporation Facilities – Upgrade Physical Security to Meet HSPD-12 Requirements (Capital Project and Non-Capital Maintenance Project) (FY 2014 – $100,000)** – This project is for procuring the Personal Identity Verification (PIV) cards required by the Department as well as the procurement and installation of necessary PIV card readers and other required infrastructure to meet HSPD-12 requirements. *(Project funds obligated in FY 2010, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(19) **<u>ARP Project No. 52</u>: Corporation Facilities – Eisenhower Lock Visitors' Center – Upgrade (Capital Project) ($500,000)** – FY 2014 funding will refurbish the Visitors' Center as well as address the replacement of the Center's 50-year-old septic system and construction of a new restroom facility and security guard checkpoint. The septic system and restroom have been problematic for nearly a decade and SLSDC maintenance teams have made numerous repairs to the septic system and restrooms to keep them in operation. A new system and restroom will reduce annual maintenance work and expenses. The new security checkpoint will replace the temporary trailer that has been used by the Visitors' Center seasonal security personnel for the past decade. *(Project funds obligated in FY 2011 and additional obligations are planned in FY 2013)*

(20) **<u>ARP Project No. 58</u>: Corporation Facilities – Upgrades to Meet Sustainability and Energy Goals (Capital Project) ($100,000)** – This project is to implement the recommendations of an energy/water conservation audit and a retro-commissioning study both of which were conducted by consultants. These upgrades will be made to meet the sustainability requirements of the various executive orders and acts. *(Project funds obligated in FY 2011 and FY 2012, and additional obligations are planned in FY 2013)*

(21) **<u>ARP Project No. 60</u>: Both Locks – Improve Access to and Rehabilitate Machinery in Crossovers and Recesses (Capital Project) ($500,000)** – This project is a multi-year project to rehabilitate the operating machinery that is located within the crossover galleries and recesses at both locks. This equipment will be cleaned and coated to remove existing and to prevent further corrosion. In addition, severely corroded components such as support structures and anchor bolts will be replaced with corrosion resistant materials.

(22) **<u>ARP Project No. 61</u>: Both Locks – Replace Recess Covers on Lock Walls (Capital Project) ($100,000)** – This is a multi-year project to replace steel and steel/concrete composite covers that are used to access the lock operating machinery located in the galleries and recess at both locks. These recess covers are original and will be over 55 years old when replaced. They have deteriorated due to the use of salt to keep the areas in which these covers are located clear of ice and they have been damaged by trucks and heavy equipment driving over them. The plan is to replace them with more durable materials designed for greater loads.

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
SLSDC FUND
Program and Financing
(In thousands of dollars)

	Identification code 69-8003-0-7-403	2012 ACTUAL	2013 CR ANNUALIZED	2014 REQUEST
	Obligations by Program Activity:			
0001	Operations and maintenance	32,259	32,456	32,855
0900	Total new obligations (Object Class 25.3)	32,259	32,456	32,855
	Budgetary Resources:			
	Budget Authority:			
	Appropriations, discretionary:			
1101	Appropriation (special or trust fund)	32,259	32,456	32,855
1160	Appropriation, discretionary (total)	32,259	32,456	32,855
1930	Total budgetary resources available	32,259	32,456	32,855
	Change in Obligated Balance:			
	Obligated Balance, Start of Year (Net):			
3000	Unpaid obligations, brought forward, Oct 1 (gross)	0	0	0
	Change in Obligated Balance during the Year:			
3010	Obligations incurred, unexpired accounts	32,259	32,456	32,855
3020	Outlays (gross) (-)	(32,259)	(32,456)	(32,855)
	Obligated Balance, End of Year (Net):			
3050	Unpaid obligations, end of year (gross)	0	0	0
3200	Obligated balance, end of year (net)	0	0	0
	Budget Authority and Outlays, Net:			
	Discretionary:			
	Gross Budget Authority and Outlays:			
4000	Budget authority, gross	32,259	32,456	32,855
	Outlays, gross:			
4010	Outlays from new discretionary authority	32,259	32,456	32,855
	Additional Offsets against Gross Budget Authority only:			
4070	Budget authority, net (discretionary)	32,259	32,456	32,855
4080	Outlays, net (discretionary)	32,259	32,456	32,855
	Budget Authority and Outlays, Net (total):			
4180	Budget authority, net (total)	32,259	32,456	32,855
4190	Outlays, net (total)	32,259	32,456	32,855

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
10-Year History of Appropriations
Operations and Maintenance (69-8003)
(Harbor Maintenance Trust Fund)

YEAR	REQUEST		ENACTED	
2005	$15,900,000		$15,707,000	/1
2006	$ 8,000,000	/2	$16,121,000	/3
2007	$ 7,920,000	/4	$16,223,160	/5
2008	$17,392,000		$17,392,000	
2009	$31,842,000		$31,842,000	
2010	$32,324,000		$32,324,000	
2011	$32,324,000		$32,259,000	/6
2012	$33,996,000		$32,259,000	
2013	$33,000,000			
2014	$32,855,000			

1/ Reflects reductions of $127,200 (0.80%) pursuant to P.L. 108-447 (Div. J, Sec. 122(a)) and $66,000 pursuant to P.L. 108-447 (Division H, Title I, Sec. 197)

2/ Total program request of $16,284,000 consists of an appropriation of $8,000,000 from the Harbor Maintenance Trust Fund (69-8003) and $8,284,000 in proposed U.S. commercial toll receipts.

3/ Reflects reductions of $162,840 (1.00%) pursuant to P.L. 109-148 (Sec. 3801).

4/ Total request of $17,345,000 consists of an appropriation of $7,920,000 from the Harbor Maintenance Trust Fund (69-8003) and $9,425,000 in proposed U.S. commercial toll receipts.

5/ Reflects reductions of $1,121,840, pursuant to P.L. 110-5 (Division B, Title I, Sec. 101(a) and Sec. 111(a)(1)).

6/ Reflects rescission of $65,000 (0.2%) pursuant to P.L. 112-10 (Division B, Title I, Section 1119).

SLSDC Fund

(69x4089)

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APPROPRIATIONS LANGUAGE

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

FEDERAL FUNDS

Public enterprise funds:

Saint Lawrence Seaway Development Corporation

The Saint Lawrence Seaway Development Corporation is hereby authorized to make such expenditures, within the limits of funds and borrowing authority available to the Corporation, and in accord with law, and to make such contracts and commitments without regard to fiscal year limitations as provided by section 104 of the Government Corporation Control Act, as amended, as may be necessary in carrying out the programs set forth in the Corporation's budget for the current fiscal year.

Note – A full-year 2013 appropriation for this account was not enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 112-175). The amounts included for 2013 reflect the annualized level provided by the continuing resolution.

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EXHIBIT III-1

SLSDC FUND (69x4089)
SUMMARY BY PROGRAM ACTIVITY
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

	FY 2012 ACTUAL	FY 2013 CR ANNUALIZED	FY 2014 REQUEST	CHANGE FY 2012-14
Program Activity				
Agency Operations	$17,559	$17,856	$17,905	$ 346
Asset Renewal Program	15,600	15,500	15,850	250
Total	**$33,159**	**$33,356**	**$33,755**	**$ 596**
FTEs	**144**	**144**	**144**	**0**

Program and Performance Statement

The FY 2014 President's Budget request for the SLSDC includes $33.8 million, derived from the Harbor Maintenance Trust Fund (HMTF) ($32.9 million) and agency offsetting collections ($900,000). The request will fund general agency operations ($17.9 million) as well as 22 capital and non-capital maintenance projects as part of the sixth year of funding for the SLSDC's multi-year Asset Renewal Program (ARP) ($15.9 million) *(see pages 35-40 for ARP project estimates and descriptions)*.

SLSDC programs and activities, including the ARP, are principally focused on meeting the Department's "Economic Competitiveness" strategic goal. The SLSDC is directly responsible for ensuring the safe, efficient, and secure passage of commercial vessels through the binational St. Lawrence Seaway and it has historically maintained a 99 percent availability rate. The SLSDC remains dedicated to promoting the economic and environmental benefits of the marine mode, attracting new cargoes to the Seaway, and leveraging technology to enhance the system's performance and safety.

EXHIBIT III-1a

SLSDC FUND (69x4089)
SUMMARY ANALYSIS OF CHANGE
FY 2013 CR ANNUALIZED TO FY 2014 REQUEST
Appropriations, Obligation Limitations, and Exempt Obligations
($000)

ITEM	Change from FY 2013 CR Annualized to FY 2014 Request ($000)	Change from FY 2013 CR Annualized to FY 2014 Request (FTE)
FY 2013 CR ANNUALIZED	**$33,356**	**144**
ADJUSTMENTS TO BASE:		
FY 2014 Wage Grade (WG) Pay Increase	$49	
FY 2014 General Schedule (GS) Pay Increase	48	
Washington Office Rent	25	
Non-Pay Inflation	16	
DOT Working Capital Fund	(21)	
SUBTOTAL, ADJUSTMENTS TO BASE	**$117**	**0**
PROGRAM CHANGES:		
Year Six Asset Renewal Program (ARP)	$350	
"Campaign to Cut Waste" Initiative Reductions	(68)	
SUBTOTAL, PROGRAM CHANGES	**$282**	**0**
INCREASES/DECREASES	**$399**	**0**
FY 2014 REQUEST	**$33,755**	**144**

EXHIBIT III-2

ANNUAL PERFORMANCE RESULTS AND TARGETS
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

The SLSDC integrates performance results into its budget request to demonstrate alignment with the Department of Transportation's Strategic Plan. The SLSDC tracks the following DOT level performance measure to demonstrate program results:

DOT Goal/Outcome: Economic Competitiveness – Maximum economic returns on transportation policies and investments

Seaway System Availability	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Target:	99.0%	99.0%	99.0%	99.0%	99.0%
Actual:	99.8%	99.0%	99.7%	—	—

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Program and Financing
(In thousands of dollars)

Identification code 69-4089-0-3-403		2012 ACTUAL	2013 CR ANNUALIZED	2014 REQUEST
	OBLIGATIONS BY PROGRAM ACTIVITY			
	Reimbursable Programs:			
0801	Operations and maintenance	16,392	17,356	17,966
0802	Replacements and improvements	16,442	16,000	15,789
0900	**Total new obligations**	32,834	33,356	33,755
	BUDGETARY RESOURCES			
	Unobligated Balance:			
	Authority to borrow	3,200	3,200	3,200
	Fund balance	12,193	12,798	12,798
1000	Unobligated balance brought forward, Oct 1	15,393	15,998	15,998
	Nonexpenditure Transfers:			
1011	Unobligated balance transferred from other accounts	0	0	0
	Adjustments:			
1021	Unobligated Balance: Recoveries of prior year unpaid obligations	200	0	0
1050	Unobligated balance (total)	15,594	15,998	15,998
	Budget Authority:			
	Spending Authority from Offsetting Collections:			
1800	BA: Mandatory: Spending authority: Collected	33,540	33,356	33,755
1801	BA: Mandatory: Spending authority: Change in uncollected payments, Federal sources (+ or -)	(303)	0	0
1850	Budget Authority: Mandatory: Spending authority from offsetting collections (total)	33,238	33,356	33,755
1900	**Budget authority total (discretionary and mandatory)**	33,238	33,356	33,755
1930	**Total budgetary resources available (discretionary and mandatory)**	48,831	49,354	49,753
	MEMORANDUM (NON-ADD) ENTRIES			
	Authority to borrow	3,200	3,200	3,200
	Fund balance	12,798	12,798	12,798
1941	**Unobligated Balance: Memo: Unexpired unobligated balance, end of year**	15,998	15,998	15,998
	CHANGE IN OBLIGATED BALANCE			
	Unpaid Obligations:			
3000	Obligated Balance: SOY: Unpaid obligations, brought forward, Oct 1	23,292	26,832	24,241
3010	Obligated Balance: Obligations incurred, unexpired accounts	32,834	33,356	33,755
3020	Obligated Balance: Outlays (gross) (-)	(29,094)	(35,947)	(36,105)
3040	Obligated Balance: Recoveries of unpaid prior year obligations, unexpired accounts	(200)	0	0
3050	Obligated Balance: EOY: Unpaid obligations, end of year	26,832	24,241	21,891

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Program and Financing
(In thousands of dollars)

Identification code 69-4089-0-3-403		2012 ACTUAL	2013 CR ANNUALIZED	2014 REQUEST
	Uncollected payments:			
3060	Obligated Balance: SOY: Uncollected customer payments, Federal sources, brought forward, Oct 1 (-)	(485)	(183)	(183)
3070	Obligated Balance: Change in uncollected customer payments, Federal sources, unexpired accounts (+ or -)	303	0	0
3090	Federal sources, end of year (-)	(183)	(183)	(183)
	MEMORANDUM (NON-ADD) ENTRIES	0	0	0
3100	Obligated balance, start of year (+ or -)	22,806	26,649	24,058
3200	Obligated balance, end of year (+ or -)	26,649	24,058	21,708
	BUDGETARY AUTHORITY AND OUTLAYS, NET:			
	Mandatory:			
	Gross Budget Authority and Outlays:			
4090	Mandatory: Budget authority, gross	33,238	33,356	33,755
	Mandatory: Outlays, gross			
4100	Mandatory: Outlays from new authority	16,769	33,356	33,755
4101	Mandatory: Outlays from balances	12,325	2,591	2,350
4110	Mandatory: Outlays, gross (total)	29,094	35,947	36,105
	Offsets against Gross Budget Authority and Outlays:			
	Offsets collections (collected) from:			
4120	Mandatory: Offsets, BA and OL: Collections from Federal sources (-)	(32,259)	(32,456)	(32,855)
4123	Mandatory: Offsets, BA and OL: Collections from Non-Federal sources (-)	(1,281)	(900)	(900)
4130	Mandatory: Offsets against gross budget authority and outlays (total) (-)	(33,540)	(33,356)	(33,755)
	Additional Offsets against Gross Budget Authority only:			
4140	Mandatory: Offset, BA: Change in uncollected payments, Federal sources, unexpired accounts (+ or -)	303	0	0
4150	Mandatory: Additional offsets against budget authority only (total)	303	0	0
4160	**Mandatory: Budget authority, net**	0	0	0
4170	**Mandatory: Outlays, net**	(4,446)	2,591	2,350
	Budget Authority and Outlays, Net (total):	0	0	0
4180	**Budget authority, net (discretionary and mandatory)**	0	0	0
4190	**Outlays, net (discretionary and mandatory)**	(4,446)	2,591	2,350

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Object Classification
(In thousands of dollars)

Identification code 69-4089-0-3-403		2012 ACTUAL	2013 CR ANNUALIZED	2014 REQUEST
	Personnel compensation:			
11.1	Full-time permanent	9,322	9,204	9,309
11.3	Other than full-time permanent	158	291	291
11.5	Other personnel compensation	549	746	746
11.9	Total personnel compensation	10,029	10,241	10,346
12.1	Civilian personnel benefits	3,341	3,341	3,341
	Personnel compensation and benefits	13,370	13,582	13,687
21.0	Travel and transportation of persons	226	210	202
22.0	Transportation of things	4	4	4
23.1	Rental payments to GSA	30	30	30
23.2	Rental payments to others	11	11	11
23.3	Communications, utilities, and miscellaneous	183	183	183
23.0	Total rent, communications, and utilities	224	224	224
24.0	Printing and reproduction	24	24	24
25.1	Advisory and assistance services	327	325	310
25.2	Other services	1,120	1,447	1,409
25.3	Purchases of goods/services from Government accounts	1,313	941	942
25.4	Operation and maintenance of facilities (includes ARP)	52	2,105	52
25.6	Medical care	9	9	9
25.7	Operation and maintenance of equipment	104	104	104
25.0	Total other contractual services	2,925	4,931	2,826
26.0	Supplies and materials	934	934	938
31.0	Equipment (includes ARP)	2,343	569	2,200
32.0	Land and structures (includes ARP)	12,784	12,878	13,650
	Total other-than-personnel	19,464	19,774	20,068
99.9	Total obligations	32,834	33,356	33,755

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Personnel Summary

Identification code 69-4089-0-3-403	2012 ACTUAL	2013 CR ANNUALIZED	2014 REQUEST
Total compensable work years:			
5001 Full-time equivalent employment	127	144	144
5005 Full-time equivalent of overtime and holiday hours	3	6	6

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Balance Sheet
(In thousands of dollars)

Identification code 69-4089-0-3-403	2011 ACTUAL	2012 ACTUAL
Assets:		
Federal assets:		
1101 Fund balance with Treasury	24,131	29,197
1106 Receivables, net	…	…
1107 Advances and prepayments	…	…
Non-Federal assets:		
1201 Investments in non-Federal securities	7	7
1206 Receivables, net	459	172
1207 Advances and prepayments	…	…
Other Federal assets:		
1801 Cash and other monetary assets	11,648	11,246
1803 Property, plant and equipment, net	84,784	90,735
1901 Other assets	4,270	4,598
1999 Total assets	**125,299**	**135,955**
Liabilities:		
Federal liabilities:		
2101 Accounts payable	...	...
Non-Federal liabilities:		
2201 Accounts payable	6,903	4,628
2206 Pension and other actuarial liabilities	4,242	4,588
2207 Other	…	…
2999 Total liabilities	**11,145**	**9,216**
Net Position:		
3200 Invested capital	99,921	105,879
3300 Cumulative results of operations	14,233	20,860
3999 Total net position	**114,154**	**126,739**

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Summary of Expenses by Activity
(In thousands of dollars)

Identification code 69-4089-0-3-403	2012 ACTUAL	2013 CR ANNUALIZED	2014 REQUEST
Operations and Maintenance:			
1. Lock and Marine Operations	3,559	4,323	3,888
2. Maintenance and Engineering	3,918	4,759	4,280
3. General and Development	5,159	6,265	5,634
4. Administrative	3,756	4,562	4,103
Total Operations and Maintenance	**16,392**	**19,909**	**17,905**
Replacements and Improvements:			
1. Equipment	82	569	2,200
2. Capital Projects	16,360	12,878	13,650
Total Replacements and Improvements	**16,442**	**13,447**	**15,850**
Total Obligations	**32,834**	**33,356**	**33,755**
Authorized Positions by Activity:			
1. Lock and Marine Operations	51	51	51
2. Maintenance and Engineering	51	51	51
3. General and Development	15	15	15
4. Administrative	27	27	27
Total Authorized Positions	**144**	**144**	**144**

DEPARTMENT OF TRANSPORTATION
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION
Summary of Travel and Transportation of Persons
(In thousands of dollars)

Identification code 69-4089-0-3-403	2012 ACTUAL	2013 CR ANNUALIZED	2014 REQUEST
Field Offices:			
Business travel			
Operations	32	31	31
Administrative	0	0	0
Travel associated with training	40	35	35
Travel to and from Washington, D.C.	7	7	7
Travel to and from Massena, N.Y.	0	0	0
Foreign travel	0	0	0
Canadian travel	11	11	11
Subtotal	**90**	**84**	**84**
DC Office:			
Business travel			
Operations	14	14	11
Administrative	25	24	24
Travel associated with training	5	5	5
Travel to and from Washington, D.C.	10	10	10
Travel to and from Massena, N.Y.	31	30	30
Foreign travel	10	8	6
Canadian travel	36	35	32
Subtotal	**131**	**126**	**118**
Asset Renewal Program	**5**	**0**	**0**
Grand Total	**226**	**210**	**202**

Asset Renewal Program
Capital Investment Plan

U.S. St. Lawrence Seaway Asset Renewal Program Capital Investment Plan

FYs 2014-2018

Saint Lawrence Seaway Development Corporation

The U.S. Saint Lawrence Seaway Development Corporation (SLSDC), a wholly owned government corporation and an Operating Administration of the U.S. Department of Transportation (DOT), is responsible for the operations and maintenance of the U.S. portion of the St. Lawrence Seaway between Montreal, Quebec, and Lake Erie. This responsibility includes maintaining navigation channels and aids, managing vessel traffic control in areas of the St. Lawrence River and Lake Ontario, and maintaining and operating the two U.S. Seaway locks, Eisenhower and Snell, located in Massena, N.Y.

The SLSDC coordinates its activities with its Canadian counterpart, the St. Lawrence Seaway Management Corporation (SLSMC), to ensure that the U.S. portion of the St. Lawrence Seaway is available for commercial transit throughout the navigation season (typically late March to late December). Additionally, the SLSDC performs trade development activities designed to enhance the utilization of the Great Lakes St. Lawrence Seaway System.

For more information on the SLSDC, visit http://www.greatlakes-seaway.com.

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Saint Lawrence Seaway Development Corporation
U.S. Seaway Asset Renewal Program
Capital Investment Plan
FYs 2014-2018

Background

Operated and maintained by the U.S. Saint Lawrence Seaway Development Corporation (SLSDC) and the Canadian St. Lawrence Seaway Management Corporation (SLSMC), the St. Lawrence Seaway is a unique binational transportation asset, which directly serves an eight-state, two-province region that accounts for 28 percent of the U.S. gross domestic product (GDP), 50 percent of North America's manufacturing and services industries, and is home to nearly one-quarter of the continent's population.

Since the St. Lawrence Seaway's opening in 1959, more than 2.6 billion metric tons of cargo valued at more than $375 billion have moved through the 15-lock waterway. Additionally, maritime commerce on the Great Lakes Seaway System provides shippers with approximately $3.6 billion in annual transportation cost savings compared to the next least expensive mode of transportation. Great Lakes Seaway System ships also remain more fuel-efficient and emit fewer greenhouse gases per thousand cargo-ton miles than land-based alternatives *(see page 8 for environmental and social impacts study background)*. The Great Lakes/Seaway fleet is nearly 7 times more fuel-efficient than trucks and 1.14 times more fuel-efficient than rail. Moreover, it would take 3 million train trips or 7.1 million truck trips to carry the total cargo transported by the Great Lakes/Seaway fleet in 2010.

The waterway also produces significant economic benefits to the Great Lakes region. In fact, an economic impact study completed in 2011 concluded that maritime commerce on the Great Lakes Seaway System sustains 227,000 U.S. and Canadian jobs, $35 billion in transportation-related business revenue, $14 billion in personal income, and $5 billion in federal, state, provincial, and local taxes each year *(see page 7 for economic impact study background)*. The SLSDC remains dedicated to promoting the economic and environmental benefits of the marine mode, attracting new cargoes to the Seaway, and leveraging technology to enhance performance and safety.

To continue providing these economic benefits to the United States and Canada, the binational St. Lawrence Seaway must remain available, efficient, and competitive for commercial transportation. To achieve these goals, the Seaway's infrastructure, which has reached the end of its original "design" life, must be renewed through reinvestment on both sides of the border.

Summary

Starting in 2009, the SLSDC initiated its multi-year Asset Renewal Program (ARP) for its navigation infrastructure and facilities. The projects and equipment included in the ARP Capital Investment Plan (CIP) address various needs for the two U.S. Seaway locks, the Seaway International Bridge, maintenance dredging, operational systems, and Corporation facilities and equipment. The start of the program marked the first time in the Seaway's 50-year history that a coordinated effort to repair and modernize the U.S. Seaway infrastructure had taken place. None of the ARP investments result in increases to the authorized depth or width of the navigation channel or to the size of the two locks.

In the first four years of ARP funding (FYs 2009-2012), the SLSDC obligated $65.5 million on 40 separate ARP projects *(see page 17)*. 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 upstream miter gate rehabilitation, as well as various other structural and equipment repairs and/or replacement. FY 2013 ARP obligations are estimated at $16 million.

For the FY 2014-2018 time frame, the Seaway ARP/CIP includes 36 separate ARP projects and equipment estimated at $92.2 million with total funding for each year of the plan constrained to funding targets for those years as approved by the Office of Management and Budget (OMB). Projects and estimates included in the current ARP five-year plan are detailed on pages 9-16 and 18-19. It is important to note that dollar amounts for ARP projects are "project feasibility" estimates that can vary by an industry-recognized standard of 20-30 percent. Project estimates and schedules may fluctuate at various points in the lifespan of the ARP and will be revised as needed and on a continuing basis throughout the length of the ARP.

The 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, 73 percent of the ARP funds obligated during the program's first four years, totaling $47.5 million, were awarded within the region. In addition to these contracts, the ARP is producing approximately $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.

ARP baseline project estimates were developed by the SLSDC using 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 completed at other U.S. locks; (3) consultation with the SLSMC for similar work 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. In several cases, estimates for FYs 2014-2018 have been revised for the latest five-year plan based on either actual bids for similar ARP work and/or more complete designs.

Although the majority of ARP work is completed by contractors, the SLSDC federal workforce is directly responsible for completing several of the maintenance-related projects as well as pre-contract work, including preparation of designs, specifications, and drawings.

Unlike many of the other lock-based waterway systems in the world, which have twinned locks to ensure continued operations in the event of a lock failure, the St. Lawrence Seaway is a single-lock system. A delay or shutdown at any one of the 15 U.S. or Canadian Seaway locks would cause system-wide delays. 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 the shippers of more than $24 million ($52 million in 2012 dollars). The ARP program is vital to ensuring system availability and the flow of goods via the St. Lawrence Seaway.

The ARP supports the engineering considerations highlighted in the November 2007 binational *Great Lakes St. Lawrence Seaway Study*. The study *(see page 5 for background)* evaluated the infrastructure needs of the U.S. and Canadian Great Lakes Seaway System and assessed the economic, environmental, and engineering implications of those needs pertaining to commercial navigation. During its work on the study, the SLSDC measured its infrastructure assets using a USACE-based lock criticality index to better identify and prioritize maintenance and replacement needs. The results of the initial index were used to develop the ARP.

Over the past decade, the Canadian government, through the SLSDC's Canadian counterpart, The St. Lawrence Seaway Management Corporation (SLSMC), has started to address the asset renewal needs of its the 13 Canadian Seaway locks, eight of which are more than 75 years old (located at the Welland Canal). Many of the SLSDC's lock-related ARP improvements parallel activities underway at the Canadian Seaway locks. During its 2011/2012 fiscal year, the Canadian SLSMC spent $55.6 million implementing its asset renewal plan.

Seaway ARP Internal Working Group

In 2008, the SLSDC created the ARP Internal Working Group, made up of senior managers in engineering, procurement, financial management, budget, counsel, and policy, to ensure that the multi-year program is executed properly and efficiently as well as to identify any possible concerns throughout the process. The group convenes every two weeks to review the status of ARP projects and to collectively discuss ways to improve the overall management, execution, and reporting of the program on an ongoing basis.

SLSDC Strategic and Performance Goals

The projects included in the SLSDC's ARP/CIP specifically target the Corporation's core strategic goals related to "Safety, Security and the Environment" and "Reliability and Availability" as well as the U.S. Department of Transportation's strategic goal of "Economic Competitiveness".

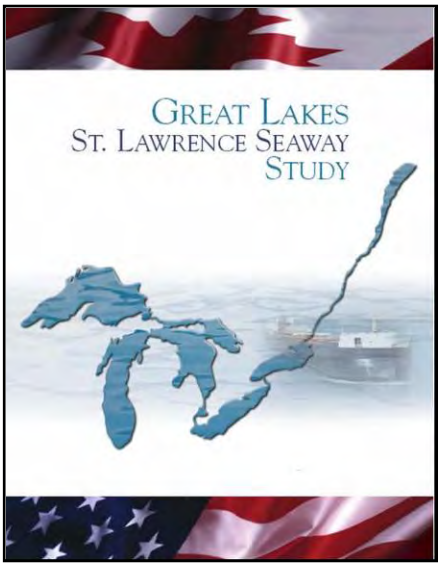
The SLSDC's principal performance measure of U.S. St. Lawrence Seaway System Availability is highlighted in the U.S. Department of Transportation's annual Performance and Accountability Report. The annual goal for providing availability of the U.S. portion of the St. Lawrence Seaway, including the two U.S. Seaway locks, to its commercial users is 99 percent.

In measuring system downtime, the SLSDC includes minutes/hours of delay for weather, including visibility; vessel incidents; insufficient water levels or high velocities; and lock equipment malfunction.

During the 2012 navigation season (March 22 to December 29), the availability of the U.S. sectors of the Seaway, including the two U.S. locks maintained and operated by the SLSDC, was 99.4 percent. The primary causes for delays were weather and minor vessel incidents (30 hours, 33 minutes). Of the remaining factors that cause system non-availability, the SLSDC has the most control over the proper functioning of its lock equipment. Lock-related delays to commercial shipping in 2012 totaled 9 hours, 13 minutes.

Without sufficient investment in the SLSDC's perpetual assets, the future availability and reliability of the U.S. section of the St. Lawrence Seaway would be at risk. Although the SLSDC has maintained a 99 percent reliability rate over its history, the ARP is necessary to accomplish this level in the future.

Binational Great Lakes St. Lawrence Seaway Study Background Information



On November 26, 2007, the U.S. and Canadian governments released its binational Great Lakes St. Lawrence Seaway Study (Study) – a joint project to assess the ongoing maintenance and long-term capital requirements of the commercial maritime navigation infrastructure of the Great Lakes St. Lawrence Seaway System. In particular, this infrastructure includes the 15 U.S. and Canadian-operated locks of the St. Lawrence Seaway as well as the Soo locks operated and maintained by the U.S. Army Corps of Engineers.

Seven Canadian and U.S. departments and agencies were involved in the multi-year study: Transport Canada, U.S. Department of Transportation, U.S. Army Corps of Engineers, SLSMC, SLSDC, Environment Canada, and the U.S. Fish and Wildlife Service. Their representatives formed a Steering Committee responsible for the Study's overall strategic direction. Study tasks and analyses were overseen by a Management Team consisting of one representative from Transport Canada and one from the Corps.

The three objectives of the Study were to:

- Evaluate the condition and reliability of the Great Lakes Seaway System, including the relative benefits and costs of continuing to maintain the existing transportation infrastructure on which it depends;

- Assess the engineering, economic, and environmental factors associated with current and future needs of the Great Lakes St. Lawrence Seaway System; and

- Identify factors and trends affecting the domestic and international marine transportation industries using the System, including evolving intermodal linkages and transportation technologies.

The final report included a detailed engineering analysis of the System's current infrastructure. This infrastructure is divided into four groups: the USACE's Soo locks in Sault Ste. Marie, Mich.; the eight Canadian locks at the Welland Canal that allow marine circumvention of Niagara Falls; the five Canadian locks in the St. Lawrence River; and the two U.S. St. Lawrence River locks owned and operated by the SLSDC.

The Study also includes an economic analysis of the costs and benefits associated with maintaining the System's infrastructure at its current state of reliability. The final report identifies factors and trends affecting the domestic and international marine transportation industries using the System. In addition, with the active participation and the endorsement of Environment Canada and the U.S. Fish and Wildlife Service, the Study is a unique commercial navigation assessment in that it incorporates an environmental analysis.

Among the Study's important findings are:

- The Great Lakes St. Lawrence Seaway System continues to play a decisive role in the economic life of North America. An economic analysis concluded that the Great Lakes Seaway System provides approximately $3.6 billion in annual transportation cost savings compared to the next least expensive mode of transportation. These savings are especially felt in strategic sectors such as steelmaking and energy, the competitiveness of which is vital to the health of the North American economy.

- The System also offers shippers considerable spare capacity. This is becoming increasingly significant as highways and rail lines in the region experience growing congestion. The Great Lakes Seaway System can play an important role in relieving some of these pressures by offering complementary transportation routes through less busy ports and by moving goods directly across lakes rather than around them.

- The commercial maritime lock infrastructure of the System has reached or exceeded its original design life and requires capital investment in order for the System to remain reliable and competitive.

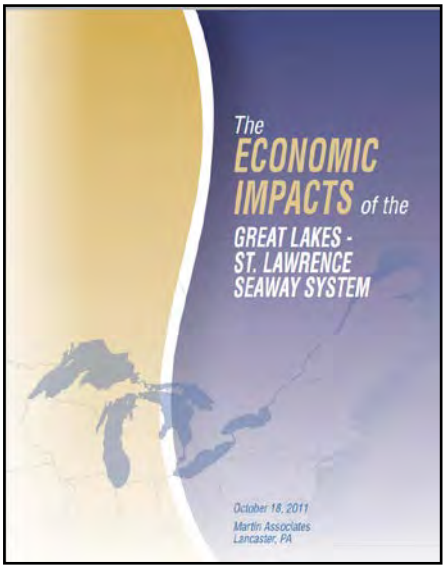
The Study provided specific considerations and conclusions:

- The System has the potential to alleviate congestion on the road and rail transportation networks as well as at border crossings in the Great Lakes basin and St. Lawrence River region.

- A stronger focus on short sea shipping would allow the System to be more closely integrated with the road and rail transportation systems, while providing shippers with a cost-effective, timely and reliable means to transport goods.

- The existing infrastructure of the Great Lakes St. Lawrence Seaway System must be maintained in good operating condition in order to ensure the continued safety, efficiency, reliability and competitiveness of the system.

- The long-term health and success of the System will depend in part on its sustainability, including the further reduction of negative ecological impacts caused by commercial navigation.



Great Lakes Seaway System Economic Impact Study Background Information

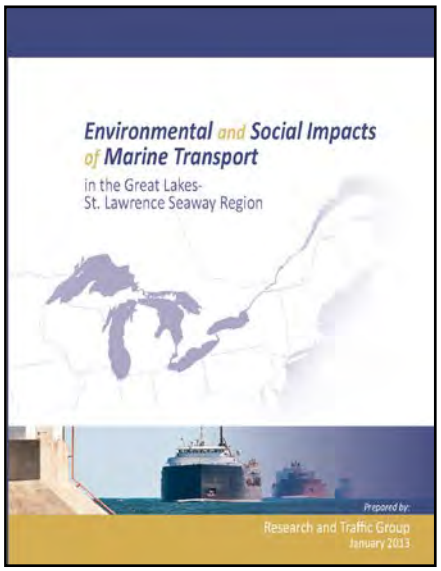
On October 18, 2011, the Great Lakes maritime industry released the results of a year-long study of the economic impacts of the entire Great Lakes-St. Lawrence Seaway navigation system. The study was commissioned by members of the marine shipping industry, in partnership with U.S. and Canadian government agencies. Martin Associates of Lancaster, Pa., a global leader in transportation economic analysis and strategic planning, was retained to conduct the study.

The study found that maritime commerce supported 227,000 U.S. and Canadian jobs, $35 billion in transportation-related business revenue, $14 billion in personal income, and $5 billion in federal, state, provincial, and local taxes each year. North American farmers, steel producers, construction firms, food manufacturers, and power generators depend on the 164 million metric tons of essential raw materials and finished products that are moved annually on the system. Additionally, marine shipping saves companies approximately $3.6 billion per year in transportation costs compared to the next least-costly land-based alternative.

The report provides the navigation community, transportation planners, government policymakers and the general public with a realistic assessment of the contributions made by the Great Lakes Seaway System to the federal, state/provincial, and local economies. The region depends on ocean vessels, U.S. and Canadian lake carriers, and barges to deliver iron ore, coal, stone, salt, sugar, grain, steel, wind turbine components, and heavy machinery to keep binational businesses running.

The study is available at www.greatlakes-seaway.com/en/seaway/facts/eco_impact.html.

Great Lakes Seaway System Marine Transportation Environmental and Social Impacts Background Information



On February 5, 2013, a new study titled *The Environmental and Social Impacts of Marine Transport in the Great Lakes-St. Lawrence Seaway Region* was released that found that Great Lakes Seaway System ships are more fuel-efficient and emit fewer greenhouse gases per thousand cargo-ton miles than land-based alternatives. The study was conducted by Ontario transportation consultants Research and Traffic Group.

The study also calculated that the shift from marine to road and/or rail modes of transport would lead to increased societal impacts including additional traffic congestion, higher infrastructure maintenance costs, and significantly greater levels of noise.

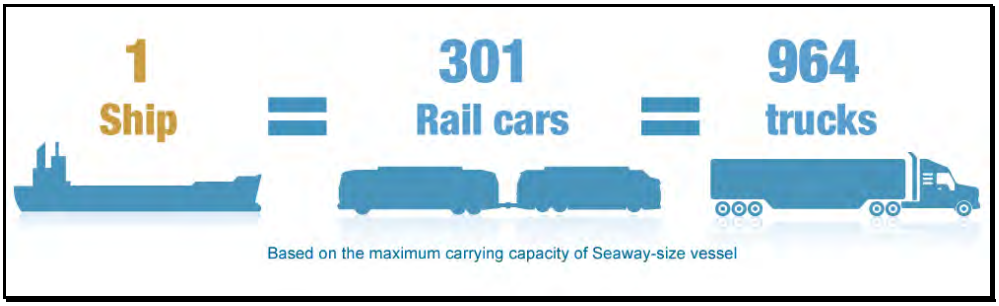
In terms of energy efficiency and greenhouse gas emissions, the study finds that:

- The Great Lakes/Seaway fleet is nearly 7 times more fuel-efficient than trucks and 1.14 times more fuel-efficient than rail.
- Rail and trucks would emit 19 percent and 533 percent more greenhouse gas emissions respectively if these modes carried the same cargo the same distance as the Great Lakes/Seaway fleet.

The study also emphasizes the significant role that marine shipping plays in reducing congestion on roads and railways:

- It would take 3 million train trips to carry the total cargo transported by the Great Lakes/Seaway fleet in 2010, as much as double the existing traffic on some rail lines in Canada and at least a 50 percent increase in traffic on some of the busiest lines in the U.S.
- It would take 7.1 million truck trips to carry the total cargo transported by the Great Lakes/Seaway fleet in 2010, increasing existing truck traffic by between 35 and 100 percent.
- If Great Lakes/Seaway marine shipping cargo shifted permanently to trucks, it would lead to $4.6 billion in additional highway maintenance costs over a 60-year period.

The study is available at www.greatlakes-seaway.com/en/seaway/environment/index.html.



SUMMARY OF ARP CAPITAL AND MAINTENANCE PROJECTS
FYs 2014-2018
$92,150,000

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 conditioning 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.

Dollar amounts for ARP projects are "project feasibility" estimates that can vary by an industry-recognized 20-30 percent. Funding for each year of the ARP is constrained to annual funding targets as approved by the U.S. Office of Management and Budget (OMB). Project estimates and schedules may fluctuate at various points in the lifespan of the ARP and will be revised as needed throughout the length of the ARP. Many of the projects listed below have additional ARP-related project costs beyond this five-year plan.

(1) **Project No. 8: Floating Navigational Aids – Upgrade/Replace (Capital Project) (FYs 2014, 2015, 2016, 2017, and 2018 – $325,000)** – This is an ongoing program to replace floating navigational aids/buoys and winter markers that have been damaged over the years, on an as required basis. The Corporation is responsible for approximately 100 buoys and 50 winter markers. *(Project funds obligated in FY 2009 and FY 2010, and additional obligations are planned in FY 2013)*

(2) **Project No. 9: Corporation Equipment – Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment (Capital Project, Capital Equipment, and Non-Capital Maintenance Equipment) (FYs 2014, 2015, 2016, 2017, and 2018 – $1,300,000)** – 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. (*Project funds obligated in FY 2009, FY 2010, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(3) **<u>Project No. 10</u>: Both Locks – Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities (Non-Capital Maintenance Project) (FYs 2014, 2015, 2016, 2017, and 2018 – $100,000)** – 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. (*Project funds obligated in FY 2009, FY 2010, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(4) **<u>Project No. 11</u>: Fixed Navigational Aids – Rehabilitate (Capital Project and Non-Capital Maintenance Project) (FYs 2014, 2015, 2016, 2017, and 2018 – $1,000,000)** – 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. *(Project funds obligated in FY 2010, FY 2011, and FY 2012)*

(5) **<u>Project No. 12</u>: Corporation Equipment – Upgrade/Replace Floating Plant (Capital Project, Capital Equipment, and Non-Capital Maintenance Project) (FYs 2015 and 2016 – $19,850,000)** – This is an ongoing program to modernize the Corporation's floating plant which is used for maintaining the locks and navigation channels. This multiyear project includes replacing the tug; upgrading the buoy tender barge; purchasing a smaller tug for operations where the capabilities of the larger tug are not efficient and a small scow for transporting dredged spoil from emergency/spot dredging; and rehabilitating the crane barge/gatelifter which would be used if a miter gate were damaged and had to be replaced. Proposed projects to be funded in FYs 2015 and 2016 include the replacement of the *Robinson Bay* tugboat and the purchase of a smaller operational tug. (*Project funds obligated in FY 2009, FY 2010, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(6) **<u>Project No. 13</u>: Corporation Facilities – Replace Roofs (Capital Project) (FYs 2014, 2015, 2017, and 2018 – $1,085,000)** – This project is for replacing the roofs on the Corporation's various buildings and facilities in Massena, New York, as required. Most of the roofs are currently insulated ethylene propylene diene monomer (EPDM) roofs with a service life of 10-15 years and have reached the end of that time frame. *(Project funds obligated in FY 2009, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(7) **<u>Project No. 14</u>: Corporation Facilities – Replace Paving and Drainage Infrastructure (Capital Project) (FY 2014 – $1,300,000)** – This project is for improving the pavement and drainage along lock approach walls as well as the roadways, public parking, and work areas at all Corporation facilities. In Upstate New York, the damage to pavements caused by winter conditions is significant. If repairs are not made before the damage is too severe, complete replacement of the pavement down to and often including the base materials is required at a much higher cost. *(Project funds obligated in FY 2009 (combined with ARP Project No. 3), FY 2010, and FY 2011, and additional obligations are planned in FY 2013)*

(8) **<u>Project No. 15</u>: Eisenhower Lock Highway Tunnel – Rehabilitate (Capital Project and Non-Capital Maintenance Project) (FYs 2015 and 2017 – $520,000)** – This is an ongoing project to maintain the highway tunnel which goes through the upper sill area of Eisenhower Lock, providing the only access to the north sides of both Eisenhower and Snell Locks, to the New York Power Authority's Robert Moses Power Project and to the New York State Park on Barnhart Island. This project includes grouting to limit the water leaking into the tunnel, upgrading the tunnel lighting, replacing damaged/missing tiles from the walls and ceiling, replacing deteriorated/damaged gratings and railings, stabilizing/repairing wingwalls at the tunnel approaches and clearing tunnel drains which are becoming plugged with concrete leachate products. Due to the fact that this tunnel is the only means of access to the facilities noted above, any problems that would make it necessary to close the tunnel for repair would have very significant impacts. (*Project funds obligated in FY 2009, FY 2010, FY 2011, and FY 2012)*

(9) **<u>Project No. 16</u>: Corporation Technologies - Upgrade GPS/AIS/TMS (Capital Project and Capital Equipment) (FYs 2015 and 2017 – $200,000)** – 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. *(Project funds obligated in FY 2009, FY 2010, and FY 2012)*

(10) **<u>Project No. 17</u>: Navigation Channels – Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments (Non-Capital Maintenance Project) (FYs 2014 and 2017 – $10,350,000)** – This project is for dredging of the navigation channel to remove sediment and to maintain the design grade for the channel bottom. In FY 2009, the SLSDC awarded an ARP contract to complete maintenance dredging for both the intermediate pool (between Eisenhower and Snell Locks) and the international tangent section to the east of Snell Lock. The dredging in the intermediate pool is essentially complete; however, some high spots comprised of very hard material remain, which will require removal in the future. FY 2014 and 2017 funding will address the remaining high spots and begin work on other sections of the St. Lawrence River under U.S. jurisdiction that require maintenance dredging. *(Project funds obligated in FY 2009, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(11) **<u>Project No. 22</u>: Both Locks – Install Vessel Self Spotting Equipment (Capital Project) (FY 2014 – $300,000)** – This project is for installing equipment at the U.S. Seaway locks such that transiting vessels can spot/locate themselves in the lock. This new technology, once fully implemented, will eliminate the need for Lock Operations' personnel to spot vessels in a lock. The Canadian St. Lawrence Seaway Management Corporation (SLSMC) has already completed testing and installation of this new technology at their locks. *(Obligations are planned in FY 2013)*

(12) **<u>Project No. 23</u>: Both Locks – Install Vessel Vacuum Mooring Systems (Capital Project) (FYs 2016 and 2017 – $10,000,000)** – This project is for installing vessel vacuum mooring equipment at both Eisenhower and Snell Locks to hold vessels in place while they are in the lock. This new technology, once fully implemented, will reduce labor costs for locking vessels. The Canadian SLSMC is continuing to develop and test this technology at its locks.

(13) **<u>Project No. 26</u>: Corporation Facilities – Upgrade Storage for Lock Spare Parts (Capital Project) (FY 2014 – $200,000)** – This project is for constructing shelters/buildings for storage of lock spare parts and equipment to prevent them from corroding. Many of these items are currently not stored under cover and/or are stored in old storage sheds that are in need of repair or replacement. *(Project funds obligated in FY 2010 and FY 2011, and additional obligations are planned in FY 2013)*

(14) **<u>Project No. 27</u>: Corporation Facilities – Replace Windows and Doors and Repair Building Facades (Capital Project) (FYs 2014, 2016, and 2018 – $620,000)** – 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. *(Project funds obligated in FY 2010, FY 2011, and FY 2012)*

(15) **<u>Project No. 28</u>: Snell Lock – Walls, Sills and Culverts – Rehabilitate Concrete (Capital Project) (FYs 2016 and 2018 – $3.575,000)** – This project is to replace deteriorated/damaged concrete at Snell Lock in all areas except the diffusers. This includes concrete that has been damaged by freeze-thaw cycles and by vessel impacts. It is resurfacing the mass concrete that forms the locks walls as well as filling and emptying culverts and the gate sills by replacing deteriorated/damaged concrete.

(16) **<u>Project No. 29</u>: Eisenhower Lock – Walls, Sills and Culverts – Rehabilitate Concrete (Capital Project) (FYs 2014, 2015, and 2017 – $6,825,000)** – 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 and concrete that has been damaged by freeze-thaw cycles and by vessel impacts. This project includes resurfacing the mass concrete that forms the locks walls as well as filling and emptying culverts and the gate sills by replacing concrete to depths ranging between approximately 8 inches and 24 inches. *(Project funds obligated in FY 2010)*

(17) **<u>Project No. 33</u>: Both Locks – Upgrade Drainage Infrastructure in Galleries and Recesses (Capital Project) (FYs 2014 and 2015 – $305,000)** – 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. *(Obligations are planned in FY 2013)*

(18) **<u>Project No. 34</u>: Both Locks – Improve Ice Control (Capital Project) (FYs 2014 and 2015 – $460,000)** – This project is to improve the methods/equipment used to control ice in and around Eisenhower and Snell Locks during the opening and closing of each navigation season. Air curtains and bubblers are currently used to minimize the ice entering a lock chamber and to move it away from the miter gates. Backhoes are used for removing ice from the lock walls, which reduces the width available for transiting vessels. Improvements to existing systems/equipment and utilizing new technologies would make operations during icy conditions more efficient and would minimize damages to the lock components and transiting vessels. *(Project funds obligated in FY 2010)*

(19) **<u>Project No. 35</u>: Vessel Mooring Cells – Rehabilitate and Extend (Capital Project) (FYs 2014 and 2017 – $2,060,000)** – This project is for rehabilitating and extending the vessel mooring cells upstream of Eisenhower Lock and in the Intermediate Pool between the locks. These mooring cells are available for vessels with problems to tie to until the problems can be corrected and/or for vessels to tie to for inspections. The existing cells are more than 50 years old, are in a state of disrepair and are too short for current Seaway length vessels. *(Obligations are planned in FY 2013)*

(20) **<u>Project No. 37</u>: Eisenhower Lock – Construct Drydock for Vessel Maintenance (Capital Project) (FY 2015 – $800,000)** – This project is for constructing a drydock in Eisenhower Lock so that repairs to the Corporation's floating plant can be made on site. Because a lock is dewatered in the winter, it could serve as a drydock by installing a floor and some pedestals/ blocking in a section of the lock to accommodate the Corporation's vessels. This would save both the cost of transporting vessels to a drydock typically located in the Great Lakes and the daily rate costs associated with drydocking a vessel.

(21) **<u>Project No. 40</u>: Both Locks – Extend Guidewalls in Pool (Capital Project) (FY 2017 – $1,550,000)** – This project is for extending the downstream guidewall at Eisenhower Lock and the upstream guidewall at Snell Lock. These approach walls were part of the original construction and are too short for mooring maximum Seaway length vessels.

(22) **<u>Project No. 42</u>: Both Locks – Miter Gates – Structural Rehabilitation (Capital Project) (FYs 2014 and 2015 – $2,070,000)** – This project is to blast clean 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. *(Funds obligated in FY 2012 and additional obligations are planned in FY 2013)*

(23) **<u>Project No. 43</u>: Both Locks – Miter Gate Machinery – Upgrade/ Replace (Capital Project) (FY 2014 – $1,750,000)** – This project is for replacing the operating machinery for the miter gates at both locks. This machinery is more than 50 years old and needs to be upgraded to insure its continued reliability. The upgrade will include new hydraulic operating equipment to match the improvements made at the Canadian Seaway locks and other locks in the United States. *(Funds obligated in FY 2011 and FY 2012)*

(24) **<u>Project No. 44</u>: Both Locks – Ship Arrestor Machinery – Upgrade/Replace (Capital Project) (FYs 2014 and 2015 – $825,000)** – This project is for replacing the operating machinery for the ship arrestors at both Eisenhower and Snell Locks. The ship arrestors protect the miter gates from damage that would be caused should a vessel malfunction, making it unable to stop. This operating machinery is more than 50 years old and needs to be upgraded to insure continued reliability.

(25) **<u>Project No. 45</u>: Flow Control Dikes – Rehabilitate (Capital Project) (FY 2015 – $515,000)** – This project is for placing additional stone on the dikes downstream of Snell Lock to return them to their original cross-section. These dikes were constructed to deflect the outflow from the Moses-Saunders Power Dam, which enters the Seaway navigation channel downstream of Snell Lock, so that it doesn't cause problems for vessels transiting that area. Over time, stones are moved by the forces of the water and ice. Work needs to be done to restore the dikes to their as-constructed condition.

(26) **<u>Project No. 46</u>: Both Locks – Guidewall Extensions – Rehabilitate (Capital Project) (FYs 2015 and 2016 – $1,035,000)** – This project is to repair damage to the guidewall extensions located at the upstream end of Eisenhower Lock and at the downstream end of Snell Lock. These structures were erected after original construction of the locks to lengthen the approach walls, which are used to assist vessels entering the locks. These structures are comprised of sheet pile cells with bridge spans and are not as stable as the original mass concrete guidewalls. They have been damaged by vessel impacts over the years and require rehabilitation to maintain their serviceability.

(27) **<u>Project No. 47</u>: Eisenhower Lock – Vertical Lift Gate – Structural Rehabilitation (Capital Project) (FY 2016 – $725,000)** – This project is for blast cleaning and painting the vertical lift gate at Eisenhower Lock to prevent further corrosion. The vertical lift gate is an emergency closure designed to be raised in the event of a miter gate failure to prevent loss of the power pool. This gate has not been cleaned and painted in over 25 years.

(28) **<u>Project No. 48</u>: Both Locks – Stiffleg Derricks – Replace (Capital Project) (FYs 2017 and 2018 – $840,000)** – This project is for replacing the structural components of the stiffleg derricks at both Eisenhower and Snell Locks. There is a stiffleg derrick located at each end of each lock. These are hoisting devices utilized to place the stoplogs which are the temporary closure structures required for dewatering a lock for inspection and/or repair of the underwater components. These units are of riveted construction, are over 50 years old and are experiencing crevice corrosion.

(29) **<u>Project No. 49</u>: Seaway International Bridge – Replace Deck (Capital Project) (FY 2018 – $14,225,000)** – This project is for replacing the deck on the south span of the bridge between Rooseveltown, N.Y., and Cornwall Island, which crosses the Seaway navigation channel. The SLSDC owns 68 percent of the south span of the bridge. Problems with the deck are repaired on a continuing basis; however, it is anticipated that by 2018, a complete replacement will be required to insure its structural integrity and continued serviceability.

(30) **<u>Project No. 50</u>: Snell Lock – Diffusers – Replace (Capital Project) (FY 2018 – $3,140,000)** – This project is to replace deteriorated/damaged concrete in the diffusers at Snell Lock. This is primarily concrete that was damaged by freeze-thaw cycles. The diffusers are the outlet structures used to dampen the flow of water when the lock is emptied and this project would be for removal and replacement of these structures.

(31) **<u>Project No. 51</u>: Corporation Facilities – Upgrade Physical Security to Meet HSPD-12 Requirements (Capital Project and Non-Capital Maintenance Project) (FY 2014 – $100,000)** – This project is for procuring the Personal Identity Verification (PIV) cards required by the Department as well as the procurement and installation of necessary PIV card readers and other required infrastructure to meet HSPD-12 requirements. *(Project funds obligated in FY 2010, FY 2011, and FY 2012, and additional obligations are planned in FY 2013)*

(32) **<u>Project No. 52</u>: Corporation Facilities – Eisenhower Lock Visitors' Center – Replace/Upgrade (Capital Project) (FY 2014 – $500,000**) – FY 2014 funding will refurbish the Visitors' Center as well as address the replacement of the Center's 50-year-old septic system and construction of a new restroom facility and security guard checkpoint. The septic system and restroom have been problematic for nearly a decade and SLSDC maintenance teams have made numerous repairs to the septic system and restrooms to keep them in operation. A new system and restroom will reduce annual maintenance work and expenses. The new security checkpoint will replace the temporary trailer that has been used by the Visitors' Center seasonal security personnel for the past decade. *(Project funds obligated in FY 2011 and additional obligations are planned in FY 2013)*

(33) **<u>Project No. 53</u>: Corporation Technologies – Financial Management System – Upgrade/Replace (Capital Project) (FY 2015 – $1,500,000)** – This project is to replace the SLSDC's existing independent financial management system (FMS). The current FMS is 25 years old and was developed in COBOL and ultimately converted to FoxPro for DOS, which does not allow for many of the today's accounting and reporting requirements. The modernization efforts are expected to be completed in two separate and distinct phases: Phase I supports IT requirements collection and acquisition support for system selection; and Phase II completes procurement of a new FMS system replacement. The continued availability and reliability of the SLSDC's FMS is crucial to preserving the Corporation's outstanding record of fiscal accountability (49 consecutive unqualified "clean" financial audits).

(34) **<u>Project No. 58</u>: Corporation Facilities – Upgrades to Meet Sustainability and Energy Goals (Capital Project) (FY 2014 – $100,000)** – This project is to implement the recommendations of an energy/water conservation audit and a retro-commissioning study both of which were conducted by consultants. These upgrades will be made to meet the sustainability requirements of the various executive orders and acts. *(Project funds obligated in FY 2011 and FY 2012, and additional obligations are planned in FY 2013)*

(35) **<u>Project No. 60</u>: Both Locks – Improve Access and Rehabilitate Machinery in Crossovers and Recesses (Capital Project) (FYs 2014, 2015, 2016, 2017, and 2018 – $1,600,000)** – This project is a multi-year project to rehabilitate the operating machinery that is located within the crossover galleries and recesses at both locks. This equipment will be cleaned and coated to remove existing and to prevent further corrosion. In addition, severely corroded components such as support structures and anchor bolts will be replaced with corrosion resistant materials.

(36) **<u>Project No. 61</u>: Both Locks – Replace Recess Covers on Lock Walls (Capital Project) (FYs 2014, 2015, 2016, 2017, and 2018 – $500,000)** – This is a multi-year project to replace steel and steel/concrete composite covers that are used to access the lock operating machinery located in the galleries and recess at both locks. These recess covers are original and will be over 55 years old when replaced. They have deteriorated due to the use of salt to keep the areas in which these covers are located clear of ice and they have been damaged by trucks and heavy equipment driving over them. The plan is to replace them with more durable materials designed for greater loads.

Saint Lawrence Seaway Development Corporation (SLSDC)
Asset Renewal Program (ARP) Obligations (Fiscal Years 2009-2012)
(In Whole Dollars)

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)	Four Year Obligation Totals
1	Snell Lock - Replace Fendering Downstream Guidewall Extension	$241,600	$8,091	$0	$0	$249,691
2	Both Locks - Rehabilitate Downstream Miter Gates	$0	$0	$3,539,935	$8,384	$3,548,319
3	Both Locks - Rehabilitate Mooring Buttons, Pins, and Concrete Along Guidewalls and Guardwalls	(Comb. w/ No. 14)	$35,422	$0	$0	$35,422
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	$4,117,050	$344,915	$3,965,005	$539,889	$8,966,859
5	Both Locks - Rehabilitate Winter Maintenance Lock Covers	$46,698	$6,638	$23,781	$28,335	$105,452
6	Seaway International Bridge – Perform Structural Rehabilitation and Corrosion Prevention	$3,102,878	$5,680,707	$0	$0	$8,783,585
7	Both Locks - Culvert Valves - Replace With Single Skin Valves	$0	$326,898	$65,591	$302,468	$694,957
8	Floating Navigational Aids - Replace	$61,254	$54,576	$0	$0	$115,830
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles, and Shop Equipment	$1,574,504	$481,052	$108,038	$81,623	$2,245,217
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	$372,479
11	Fixed Navigational Aids - Rehabilitate	$0	$10,998	$16,217	$21,048	$48,263
12	Corporation Equipment - Upgrade/Replace Floating Plant	$678,745	$1,627,925	$1,908,563	$2,160,169	$6,375,402
13	Corporation Facilities - Replace Roofs	$143,949	$0	$3,348	$89,024	$236,321
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	$921,837	$1,829,621	$85,481	$0	$2,836,939
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	$26,636	$271,804	$99,459	$1,523	$399,422
16	Corporation Technologies - Upgrade GPS/AIS/TMS	$100,997	$76,451	($3,328)	$10,000	$184,120
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	$4,279,556	$0	$3,662,267	$99,714	$8,041,537
18	Eisenhower Lock - Vertical Lift Gate - Replace Wire Ropes	$0	$487,750	$109,490	$268,549	$865,789
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	$0	$753,400	$306,847	$41,304	$1,101,551
20	Both Locks - Upgrade Lock Status/Controls	$8,558	$139,805	$89,507	$37,549	$275,419
21	Both Locks - Compressed Air Systems - Upgrade/Replace	$19,878	$787,549	$3,381	$986	$811,794
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	$37,561	$0	$0	$0	$37,561
25	Corporation Facilities - Upgrade/Replace Fire Alarm/Protection Systems	$4,148	$0	$4,007	$0	$8,155
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	$0	$418,000	$12,144	$0	$430,144
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	$0	$33,776	$5,537	$8,070	$47,383
29	Eisenhower Lock - Walls, Sills, and Culverts - Rehabilitate Concrete	$0	$209,395	$0	$0	$209,395
31	Both Locks - Rehabilitate Upstream Miter Gates	$2,201,585	$2,478,896	$347,662	$14,961	$5,043,104
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	$0	$12,734	$346,600	$0	$359,334
34	Both Locks - Improve Ice Control	$0	$7,462	$0	$0	$7,462
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	$0	$0	$0	$189,763	$189,763
41	Snell Lock - Install Ice Flushing System Technologies	$0	$0	$272,000	$11,477,293	$11,749,293
42	Both Locks - Miter Gates - Structural Rehabilitation	$0	$0	$0	$210	$210
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	$0	$0	$133,364	$1,207	$134,571
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	$0	$24,183	$21,097	$352,347	$397,627
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace	$0	$0	$13,042	$0	$13,042
54	Corporation Facilities - Administration Building - Replace Elevator	$0	$0	$140,346	$0	$140,346
55	Corporation Facilities - Maintenance Building - Replace Fuel Tanks	$0	$0	$189,350	$2,350	$191,700
56	Corporation Facilities - Duth Free Store Property - Upgrade Security	$0	$0	$13,025	$0	$13,025
57	Corporation Facilities - Upgrade Network Security	$0	$0	$158,536	$16,998	$175,534
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	$0	$0	$47,511	$57,036	$104,547
--	Miscellaneous Expenses	$0	$443	$1,699	$0	$2,142
	Asset Renewal Program Total	**$17,587,028**	**$16,339,760**	**$15,783,115**	**$15,838,803**	**$65,548,706**

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, and $672,000 in personnel compensation and benefits from its "Agency Operations" program for staff time associated with ARP work in FYs 2009, 2010, 2011, and 2012, respectively.

(4) The miscellaneous expenses of $443 in FY 2010 and $1,699 in FY 2011 were for ARP-related travel costs by SLSDC personnel that could not be linked to a specific ARP project.

Saint Lawrence Seaway Development Corporation (SLSDC)

Asset Renewal Program Five-Year Plan (FYs 2014-2018)

(In Whole Dollars)

ARP #	ARP Project Description	Type of Project (1)	Completed By (2)	Mission Objective (3)	FY 2014 Request	FY 2015 Estimate	FY 2016 Estimate	FY 2017 Estimate	FY 2018 Estimate	Five-Year Total
8	Floating Navigational Aids - Replace	CP	N/A	W	$65,000	$65,000	$65,000	$65,000	$65,000	$325,000
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	CP/CE/MP	N/A	L, W	$260,000	$260,000	$260,000	$260,000	$260,000	$1,300,000
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	MP	C	L	$20,000	$20,000	$20,000	$20,000	$20,000	$100,000
11	Fixed Navigational Aids - Rehabilitate	CP/MP	C	W	$200,000	$200,000	$200,000	$200,000	$200,000	$1,000,000
12	Corporation Equipment - Upgrade/Replace Floating Plant	CP/CE/MP	C/I	L, W	---	$9,500,000	$10,350,000	---	---	$19,850,000
13	Corporation Facilities - Replace Roofs	CP	C	F	$500,000	$500,000	---	$40,000	$45,000	$1,085,000
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	CP	C	L, F	$1,300,000	---	---	---	---	$1,300,000
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	CP/MP	C/I	T/B	---	$260,000	---	$260,000	---	$520,000
16	Corporation Technologies - Upgrade GPS/AIS/TMS Technologies	CP/CE	C/I	W	---	$100,000	---	$100,000	---	$200,000
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	MP	C	W	$5,150,000	---	---	$5,200,000	---	$10,350,000
22	Both Locks - Install Vessel Self Spotting Equipment	CP	C	L	$300,000	---	---	---	---	$300,000
23	Both Locks - Install Vessel Vacuum Mooring Systems	CP	C	L	---	---	$5,000,000	$5,000,000		$10,000,000
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	CP	C/I	L, F	$200,000	---	---	---	---	$200,000
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	CP	C/I	F	$200,000	---	$210,000	---	$210,000	$620,000
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	CP	C/I	L	---	---	$1,775,000	---	$1,800,000	$3,575,000
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	CP	C/I	L	$1,500,000	$2,500,000	---	$2,825,000	---	$6,825,000
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	CP	C/I	L	$150,000	$155,000	---	---	---	$305,000
34	Both Locks - Improve Ice Control	CP	C	L	$230,000	$230,000	---	---	---	$460,000
35	Vessel Mooring Cells - Rehabilitate and Extend	CP	C/I	W	$1,020,000	---	---	$1,040,000	---	$2,060,000
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	CP	C	L, W	---	$800,000	---	---	---	$800,000
40	Both Locks - Extend Guidewalls in Pool	CP	C	L	---	---	---	$1,550,000	---	$1,550,000
42	Both Locks - Miter Gates - Structural Rehabilitation	CP	C	L	$1,295,000	$775,000	---	---	---	$2,070,000
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	CP	C	L	$1,750,000	---	---	---	---	$1,750,000
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	CP	C	L	$410,000	$415,000	---	---	---	$825,000
45	Flow Control Dikes - Rehabilitate	CP	C	W	---	$515,000	---	---	---	$515,000
46	Both Locks - Guidewall Extensions - Rehabilitate	CP	C	L	---	$515,000	$520,000	---	---	$1,035,000
47	Eisenhower Lock - Vertical Lift Gate - Structural Rehabilitation	CP	C	L	---	---	$725,000	---	---	$725,000
48	Both Locks - Stiffleg Derricks - Replace	CP	C	L	---	---	---	$420,000	$420,000	$840,000
49	Seaway International Bridge - Replace Deck	CP	C	T/B	---	---	---	---	$14,225,000	$14,225,000
50	Snell Lock - Diffusers - Replace	CP	C	L	---	---	---	---	$3,140,000	$3,140,000

Saint Lawrence Seaway Development Corporation (SLSDC)

Asset Renewal Program Five-Year Plan (FYs 2014-2018)

(In Whole Dollars)

ARP #	ARP Project Description	Type of Project (1)	Completed By (2)	Mission Objective (3)	FY 2014 Request	FY 2015 Estimate	FY 2016 Estimate	FY 2017 Estimate	FY 2018 Estimate	Five-Year Total
51	Corporation Facilities - Upgrade Physical Security to Meet HSPD-12 Requirements	CP/MP	C/I	F	$100,000	---	---	---	---	$100,000
52	Corporation Facilities - Eisenhower Lock Visitors' Center - Replace/Upgrade	CP	C	F	$500,000	---	---	---	---	$500,000
53	Corporation Technologies - Financial Management System - Upgrade/Replace	CP	C/I	F	---	$1,500,000	---	---	---	$1,500,000
58	Corporation Facilities - Upgrades to Meet Sustainability and Energy Goals	CP	C/I	F	$100,000	---	---	---	---	$100,000
60	Both Locks - Improve Access to and Rehabilitate Machinery in Crossovers and Recesses	CP	C	L	$500,000	$500,000	$200,000	$200,000	$200,000	$1,600,000
61	Both Locks - Replace Recess Covers on Lock Walls	CP	C/I	L	$100,000	$100,000	$100,000	$100,000	$100,000	$500,000
	Total				**$15,850,000**	**$18,910,000**	**$19,425,000**	**$17,280,000**	**$20,685,000**	**$92,150,000**

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

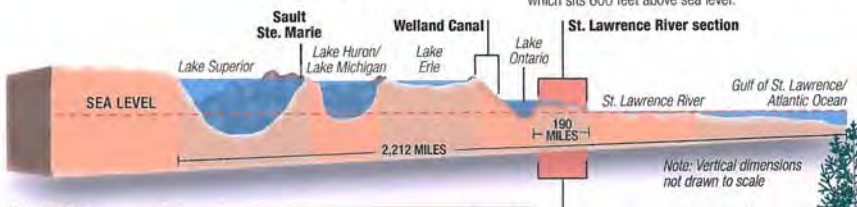
(2) C=Contractor; C/I =Contractor and/or In-House Corporation Personnel

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

Notes: (a) Estimates as of April 2013 and (b) dollar amounts for ARP projects are "project feasibility" estimates that can vary by an industry-recognized contingency of 20-30 percent.

SEAWAY LOCKS: **A 600-FOOT CLIMB IN 16 STEPS**

A ship traveling from Montreal to a port in Lake Superior has to navigate seven lock chambers in the St. Lawrence River, another set of eight locks through the Welland Canal and a final lock at Sault Ste. Marie. The ascent crosses more than 2,200 miles to Lake Superior, which sits 600 feet above sea level.



SEAWAY FACTS

■ Opened in 1959. The Seaway was considered crucial to the Great Lakes because it is the region's only outlet to the East Coast.

■ **INFRASTRUCTURE:** Dams and dikes, locks, channels and bridges.

■ **ELEVATION:** A ship in the St. Lawrence River has to go up seven locks – or 225 feet – to get to Lake Ontario.

St. Lawrence River section

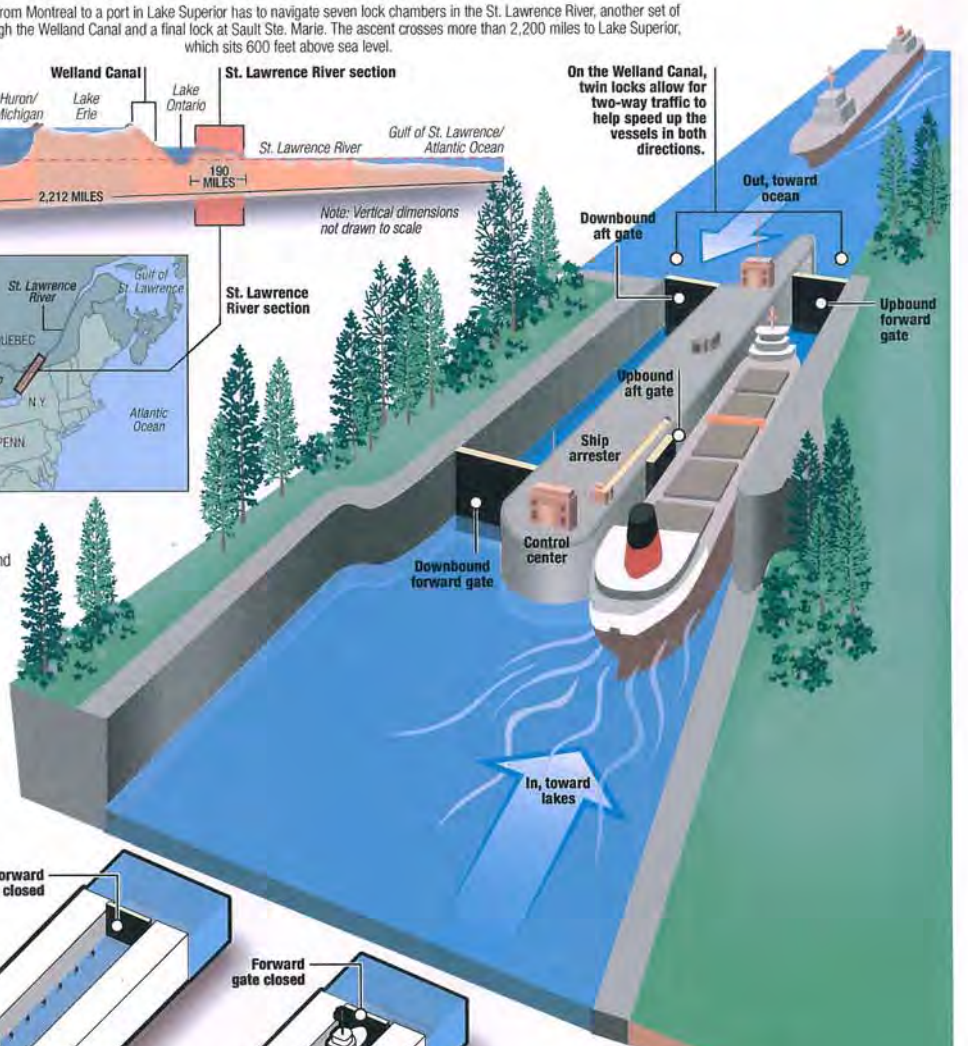
■ Every commercial ship sailing the Seaway carries a transponder that sends out its name, location coordinates and speed to the traffic control center and to other ships nearby.

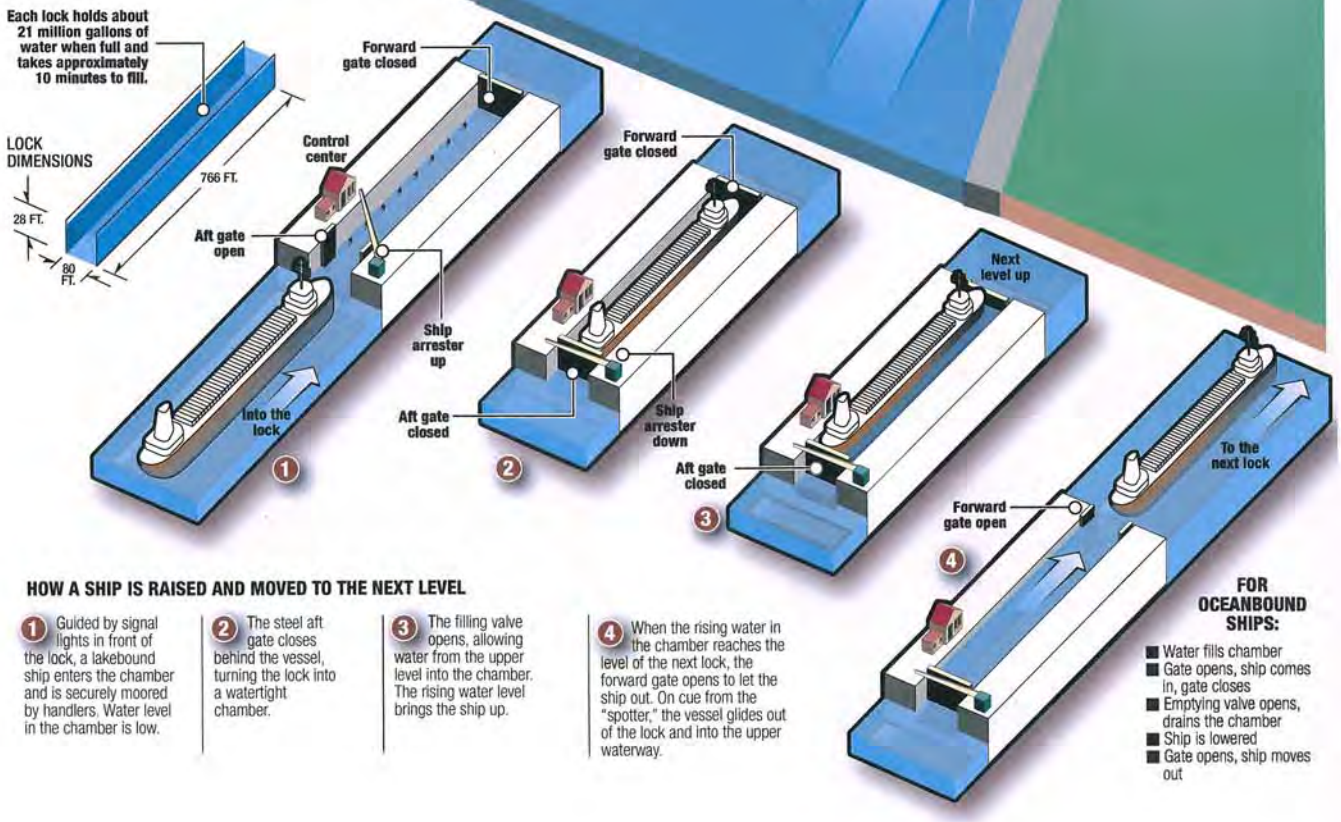
■ Seaway communications use radio signals linked to Differential Global Positioning System satellite technology.

■ Computers onboard ships and at the control center display information on a virtual Seaway map.

THE LOCK CHAMBER

The watertight chamber has gates at both ends. It allows a vessel in, then raises or lowers the ship from one level of the waterway to another. Each chamber is filled and emptied using the law of gravity – water flowing naturally from a higher elevation to a lower one.





HOW A SHIP IS RAISED AND MOVED TO THE NEXT LEVEL

1. Guided by signal lights in front of the lock, a lakebound ship enters the chamber and is securely moored by handlers. Water level in the chamber is low.

2. The steel aft gate closes behind the vessel, turning the lock into a watertight chamber.

3. The filling valve opens, allowing water from the upper level into the chamber. The rising water level brings the ship up.

4. When the rising water in the chamber reaches the level of the next lock, the forward gate opens to let the ship out. On cue from the "spotter," the vessel glides out of the lock and into the upper waterway.

FOR OCEANBOUND SHIPS:

■ Water fills chamber
■ Gate opens, ship comes in, gate closes
■ Emptying valve opens, drains the chamber
■ Ship is lowered
■ Gate opens, ship moves out






U.S. Saint Lawrence Seaway Development Corporation

http://www.greatlakes-seaway.com

April 2013