



**U.S. Department of  
Transportation**

# **BUDGET ESTIMATES**

**FISCAL YEAR 2011**

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**SAINT LAWRENCE  
SEAWAY DEVELOPMENT  
CORPORATION**

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**SUBMITTED FOR THE USE OF  
THE COMMITTEES ON APPROPRIATIONS**



**U.S. DEPARTMENT OF TRANSPORTATION**  
**SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION**  
**FY 2011 BUDGET REQUEST**  
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**Budget Summary**



# **Saint Lawrence Seaway Development Corporation**

## **FY 2011 Budget Request**

### **Budget Overview**

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For Fiscal Year (FY) 2011, the Saint Lawrence Seaway Development Corporation (SLSDC) is requesting an appropriation from the Harbor Maintenance Trust Fund (HMTF) of \$32.3 million to fund the daily operations and maintenance of the U.S. portion of the St. Lawrence Seaway as well as 19 Year Three projects of the Seaway's on-going Asset Renewal Program (ARP).

The SLSDC's program budget for FY 2011 also includes the use of \$900,000 in agency estimated non-federal revenues for a total spending plan of \$33.2 million. The spending plan includes approximately \$17.5 million for agency operations and \$15.7 million for ARP projects.

Under this funding scenario, the SLSDC will be able to perform its core mission of serving the U.S. intermodal and international transportation system and 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 lock operations and maintenance, vessel traffic control, vessel safety and environmental inspections, trade development, and capital infrastructure replacements and improvements.

The FY 2011 request includes agency operations net baseline increases of \$629,000 related to employee pay raises, personnel-related benefits, GSA rent for office space at the DOT Headquarters, DOT Working Capital Fund (WCF) costs, and non-pay inflation (*see page 47 for summary of baseline and program changes*). Program reductions totaling \$629,000 were made to the ARP's baseline estimates and to staff agency operations travel and supplies.

The \$15.7 million request to complete 20 ARP projects, 15 of which are multi-year projects that were funded in FY 2009 and/or requested in FY 2010, will address various needs for the two U.S. Seaway locks, the Seaway International Bridge connecting Ontario and New York, operational systems and networks, and Corporation facilities and equipment (*see pages 34-38 for ARP projects and descriptions*). Major ARP projects scheduled for funding in FY 2011 include hydraulic upgrades at the Seaway locks (\$4.5 million), rehabilitation of the downstream miter gate at Eisenhower Lock (\$4.3 million), and the completion of a three-year structural rehabilitation project at the Seaway International Bridge (\$3.5 million).

The SLSDC's ARP focuses on improving aging Seaway infrastructure, conducting maintenance dredging, investing in new technologies, purchasing new equipment, and refurbishing old facilities. The ARP marks the first time in the Seaway's history 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.

The Seaway's multi-year ARP, which began in FY 2009, will ensure the long-term structural integrity of the Seaway infrastructure. The St. Lawrence Seaway 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. After 50 years of continuous operation in often harsh weather conditions, the Seaway infrastructure needs to be rehabilitated if its exceptional record of performance and reliability is to be maintained for the next half century.

The SLSDC's ARP also 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, Environment Canada, U.S. Fish and Wildlife Service, and DOT's Office of the Secretary, SLSDC, and the Maritime Administration, 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.

An individual system delay or series of delays/shutdowns would seriously jeopardize the Great Lakes Seaway System's global competitiveness for the movement of agricultural and steel-related products. Although the Seaway has enjoyed a 99 percent reliability rate over its history, similar results in the future are uncertain with an aging infrastructure that has not been adequately renewed. In the competitive global market for commercial transportation, a system delay could force Seaway customers to seek alternative maritime routes and other transportation modes. An economic analysis concluded that the economic impact of a shutdown of either of the two U.S. locks would range from \$1.3-\$2.3 million per day, depending on the length of the delay.

SLSDC programs and activities, including the ARP, are principally focused on meeting the Department's Global Connectivity 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 throughout the waterway's history, beginning in 1959. In addition, the SLSDC's FY 2011 budget request also supports the Departmental strategic goals of Security, Preparedness and Response, and Organizational Excellence.

In FY 2011, the SLSDC will also continue to strengthen existing trading partner relations and develop new markets through its trade development initiatives, in an effort to increase Seaway commerce. The Seaway is positioned for significant growth in new business as the waterway has become a viable alternative for shippers looking to avoid highway and railway congestion. In 2009, 1.6 million metric tons of new cargo transited the system, including windmill parts and biofuels, due to binational efforts to market the waterway and reduce user costs. In FY 2011, the SLSDC will continue to identify niche commodities and new markets to further increase Seaway trade. The St. Lawrence Seaway is expected to become an even more important commercial transportation route over the next decade as the U.S. and Canadian governments seek to ease other modal congestion, especially along North America's East Coast and Midwest region.



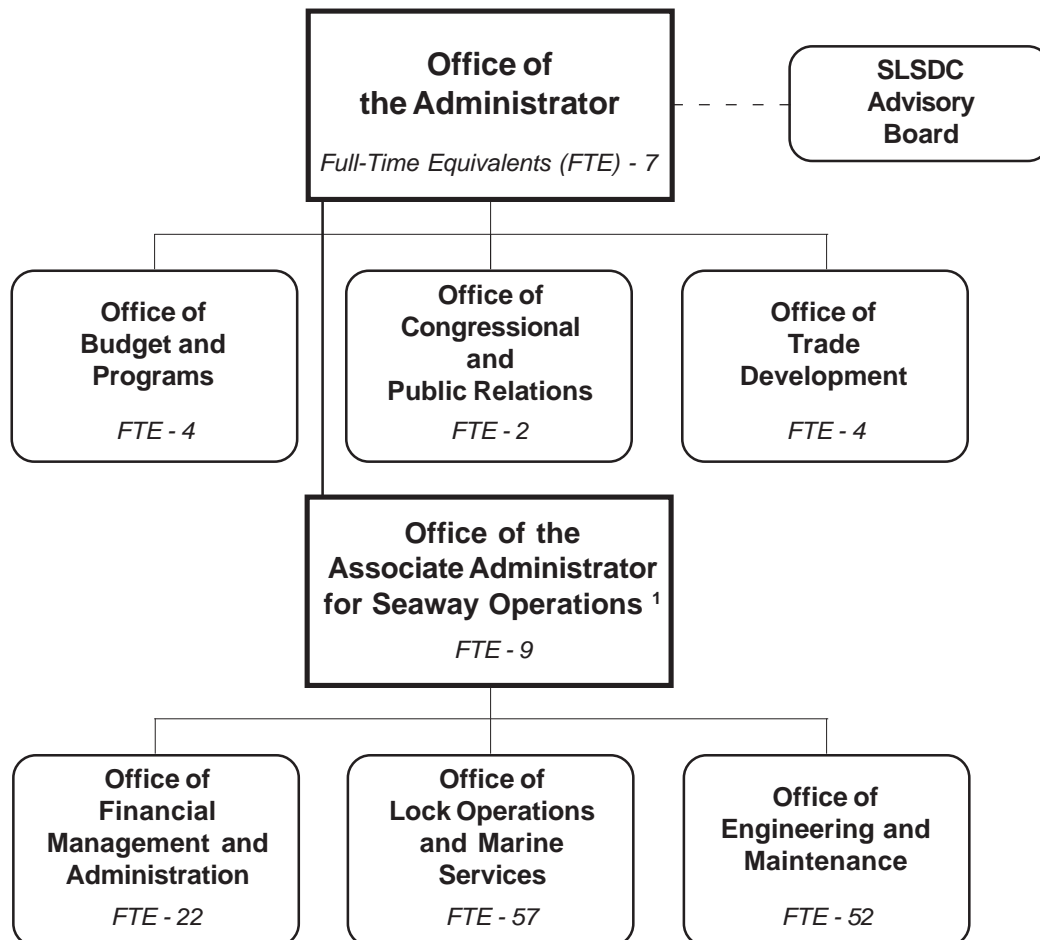
The SLSDC, Canadian SLSMC, and other U.S. and Canadian federal partners, continue to make notable progress in ballast water management and efforts to prevent any new introductions of aquatic invasive species (AIS) via commercial vessels entering Seaway waters. In 2008, the SLSDC implemented regulations 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 the other U.S. and Canadian partners, have enforced ballast water inspections of all vessels to ensure the regulations are carried out. In 2009, 100 percent of cargo vessels bound for Great Lakes Seaway System ports received a ballast water or ballast tank exam. Ships that failed to properly manage their ballast tanks were 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. As of January 2010, the Great Lakes Aquatic Nonindigenous Species Information System (GLANSIS), maintained by the National Oceanic and Atmospheric Administration (NOAA), documents that the last time a new non-native species was determined to have been established in the Great Lakes was 2006.

The St. Lawrence Seaway directly serves an eight-state, two-province region that accounts for 29 percent of the U.S. gross domestic product (GDP), 60 percent of Canada's GDP, 55 percent of North America's manufacturing and services industries, and is home to one-quarter of the continent's population. In fact, maritime commerce on the Great Lakes Seaway System impacts 150,000 U.S. jobs, \$12 million per day in wages, \$9 million per day in business revenues, and provides approximately \$3.6 billion in annual transportation cost savings compared to the next least expensive mode of transportation. Since it opened in 1959, the St. Lawrence Seaway has handled more than 2.5 billion metric tons of cargo valued in excess of \$375 billion.

# Saint Lawrence Seaway Development Corporation Organization Chart FY 2010-2011

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<sup>1</sup> All SLSDC FTEs/FTP are associated with the "Global Connectivity " performance measure of Seaway system availability, except for one FTE/FTP in the office of the Associate Administrator for Seaway Operations, which is directly attributable to the "Security, Preparedness and Response" performance measure.

## Budget Summary Tables



**EXHIBIT II-1**  
**COMPARATIVE STATEMENT OF NEW BUDGET AUTHORITY**  
**Saint Lawrence Seaway Development Corporation**  
**Budget Authority**  
*(In thousands of dollars)*

<u>ACCOUNT NAME</u>	<u>FY 2009 ACTUAL</u>	<u>FY 2010 ENACTED</u>	<u>FY 2011 REQUEST</u>
Operations and Maintenance - HMTF (69-8003)	\$31,842	\$32,324	\$32,324
	-----	-----	-----
<b>SLSDC TOTALS:</b>	<b>\$31,842</b>	<b>\$32,324</b>	<b>\$32,324</b>

**EXHIBIT II-2**  
**FY 2011 BUDGET REQUEST BY APPROPRIATION ACCOUNT**  
**Saint Lawrence Seaway Development Corporation**  
**Appropriations**  
*(In thousands of dollars)*

<b><u>ACCOUNT NAME</u></b>	<b><u>FY 2009 ACTUAL</u></b>	<b><u>FY 2010 ENACTED</u></b>	<b><u>FY 2011 REQUEST</u></b>
<b><u>Appropriations Request</u></b>			
Operations and Maintenance - HMTF (69-8003)	\$31,842	\$32,324	\$32,324
<b><u>Non Federal Revenues/Reserve Drawdown</u></b>	\$1,900	\$900	\$900
	-----	-----	-----
<b>Total SLSDC Funding:</b>	<b>\$33,742</b>	<b>\$33,224</b>	<b>\$33,224</b>
<b><u>Total Program Budget</u></b>			
<b><u>SLSDC Fund (69x4089) <sup>1</sup></u></b>			
Agency Operations	\$16,207	\$16,907	\$17,524
Asset Renewal Program	\$17,535	\$16,317	\$15,700
	-----	-----	-----
<b>Totals:</b>	<b>\$33,742</b>	<b>\$33,224</b>	<b>\$33,224</b>

<sup>1</sup> The SLSDC Fund (69x4089) for FY 2011 is proposed to include \$32,324,000 in an appropriation from the Harbor Maintenance Trust Fund (69-8003) and \$900,000 in estimated SLSDC non-federal revenues. Each year, the SLSDC, as a government corporation, generates non-federal income from such sources as interest on investments, rental payments, pleasure craft tolls, tug services, and duty free store revenues.

**EXHIBIT II-3**  
**FY 2011 BUDGET REQUEST BY APPROPRIATION ACCOUNT AND STRATEGIC OBJECTIVE**  
**Saint Lawrence Seaway Development Corporation**  
**Appropriations**  
*(in thousands of dollars)*

<b>APPROPRIATION/PROGRAM ACTIVITY/PERFORMANCE GOAL</b>	<b>SAFETY</b>	<b>REDUCED CONGESTION</b>	<b>GLOBAL CONN.</b>	<b>ENVIRON. STEWARD.</b>	<b>SECURITY</b>	<b>ORG. EXCELL.</b>	<b>TOTAL</b>
<b><u>SLSDC Fund (69x4089) <sup>1</sup></u></b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>	<b><u>\$32,899</u></b>	<b><u>\$0</u></b>	<b><u>\$285</u></b>	<b><u>\$40</u></b>	<b><u>\$33,224</u></b>
<b><u>Agency Operations and Maintenance</u></b>							
<b>Increase the Efficiency of Freight Movement:</b> Percent of days in the shipping season that the U.S. portion of the St. Lawrence Seaway is available	\$0	\$0	\$17,299	\$0	\$0	\$0	<b>\$17,299</b>
<b>Expert Transportation Sector Intelligence:</b> Preparedness for response to emergencies affecting the transportation sector (draft measure)	\$0	\$0	\$0	\$0	\$185	\$0	<b>\$185</b>
<b>Advance the Agency's Ability to Manage for Results:</b> Achieve financial performance goals, including unqualified annual audit report	\$0	\$0	\$0	\$0	\$0	\$40	<b>\$40</b>
<b>Program Activity Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$17,299</b>	<b>\$0</b>	<b>\$185</b>	<b>\$40</b>	<b>\$17,524</b>
<b><u>Asset Renewal Plan</u></b>							
<b>Increase the Efficiency of Freight Movement:</b> Percent of days in the shipping season that the U.S. portion of the St. Lawrence Seaway is available	\$0	\$0	\$15,600	\$0	\$100	\$0	<b>\$15,700</b>
<b>Program Activity Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$15,600</b>	<b>\$0</b>	<b>\$100</b>	<b>\$0</b>	<b>\$15,700</b>
<b>TOTAL:</b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>	<b><u>\$32,899</u></b>	<b><u>\$0</u></b>	<b><u>\$285</u></b>	<b><u>\$40</u></b>	<b><u>\$33,224</u></b>
<b>FTE (direct funded only):</b>	<b>0</b>	<b>0</b>	<b>156</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>157</b>

<sup>1</sup> The SLSDC Fund (69x4089) for FY 2011 is proposed to include \$32,324,000 in an appropriation from the Harbor Maintenance Trust Fund (69-8003) and \$900,000 in estimated SLSDC non-federal revenues. Each year, the SLSDC, as a government corporation, generates non-federal income from such sources as interest on investments, rental payments, pleasure craft tolls, tug services, and duty free store revenues.

**EXHIBIT II-4**  
**FY 2011 BUDGET REQUEST BY APPROPRIATION ACCOUNT**  
**Saint Lawrence Seaway Development Corporation**  
**Budget Authority**  
*(In thousands of dollars)*

<b><u>ACCOUNT NAME</u></b>	<b><u>FY 2009 ACTUAL</u></b>	<b><u>FY 2010 ENACTED</u></b>	<b><u>FY 2011 REQUEST</u></b>
<b><u>Appropriations Request</u></b>			
Operations and Maintenance - HMTF (69-8003)	\$31,842	\$32,324	\$32,324
<b><u>Non Federal Revenues/Reserve Drawdown</u></b>	\$2,200	\$900	\$900
	-----	-----	-----
<b>Total SLSDC Funding:</b>	<b>\$34,042</b>	<b>\$33,224</b>	<b>\$33,224</b>
<b><u>Total Program Budget</u></b>			
<b><u>SLSDC Fund (69x4089) <sup>1</sup></u></b>			
Agency Operations	\$16,507	\$16,907	\$17,524
Asset Renewal Program	\$17,535	\$16,317	\$15,700
	-----	-----	-----
<b>Totals:</b>	<b>\$34,042</b>	<b>\$33,224</b>	<b>\$33,224</b>

<sup>1</sup> The SLSDC Fund (69x4089) for FY 2011 is proposed to include \$32,324,000 in an appropriation from the Harbor Maintenance Trust Fund (69-8003) and \$900,000 in estimated SLSDC non-federal revenues. Each year, the SLSDC, as a government corporation, generates non-federal income from such sources as interest on investments, rental payments, pleasure craft tolls, tug services, and duty free store revenues.



**EXHIBIT II-5**  
**FY 2011 BUDGET REQUEST BY APPROPRIATION ACCOUNT**  
**Saint Lawrence Seaway Development Corporation**  
**Outlays <sup>1</sup>**  
*(In thousands of dollars)*

<b><u>ACCOUNT NAME</u></b>	<b><u>FY 2009 ACTUAL</u></b>	<b><u>FY 2010 ENACTED</u></b>	<b><u>FY 2011 REQUEST</u></b>
<b><u>Appropriations Request</u></b>			
Operations and Maintenance - HMTF (69-8003)	\$31,842	\$32,324	\$32,324
<b><u>Non Federal Revenues/Reserve Drawdown</u></b>	\$2,068	\$900	\$900
	-----	-----	-----
<b>Total SLSDC Funding:</b>	<b>\$33,910</b>	<b>\$33,224</b>	<b>\$33,224</b>
<b><u>Total Program Budget</u></b>			
<b><u>SLSDC Fund (69x4089) <sup>2</sup></u></b>			
Agency Operations	\$16,323	\$16,907	\$17,524
Asset Renewal Program	\$17,587	\$16,317	\$15,700
	-----	-----	-----
<b>Totals:</b>	<b>\$33,910</b>	<b>\$33,224</b>	<b>\$33,224</b>

<sup>1</sup> Outlays are reported on a cash expenditure basis. The amount of budget authority and outlays for a fiscal year typically differ because budget authority from a previous fiscal year can be used for outlays in the current fiscal year.

<sup>2</sup> The SLSDC Fund (69x4089) for FY 2011 is proposed to include \$32,324,000 in an appropriation from the Harbor Maintenance Trust Fund (69-8003) and \$900,000 in estimated SLSDC non-federal revenues. Each year, the SLSDC, as a government corporation, generates non-federal income from such sources as interest on investments, rental payments, pleasure craft tolls, tug services, and duty free store revenues.

## EXHIBIT II-6

### SUMMARY OF REQUESTED FUNDING CHANGES FROM BASE Saint Lawrence Seaway Development Corporation (In thousands of dollars)

#### SLSDC Fund (69x4089) <sup>1</sup>

	FY 2010 Enacted	Annual. of 2010 Pay Raises	2011 Pay Raises <sup>2</sup>	Personnel- Related Benefits	WCF and GSA Rent Increases <sup>3</sup>	Non-Pay Inflation	FY 2011 Adjusted Base	Program Increases/ Decreases	FY 2011 Request
<b>PERSONNEL RESOURCES</b>	<b>157</b>						<b>157</b>		<b>157</b>
Direct FTEs	157						157		157
<b>FINANCIAL RESOURCES</b>									
<b>Administrative Expenses</b>									
Salaries and Benefits	\$3,608	\$20	\$48	\$50			\$3,726		\$3,726
Travel	\$71					\$1	\$72	(\$5)	\$67
Transportation	\$2						\$2		\$2
GSA Rent	\$296				\$12		\$308		\$308
Comms and Utilities	\$40					\$1	\$41		\$41
Printing	\$2						\$2		\$2
Other Services:									
WCF	\$401				\$185		\$586		\$586
Other	\$263					\$6	\$269		\$269
Supplies	\$38						\$38	(\$7)	\$31
<b>Admin. Sub-Total</b>	<b>\$4,721</b>	<b>\$20</b>	<b>\$48</b>	<b>\$50</b>	<b>\$197</b>	<b>\$8</b>	<b>\$5,044</b>	<b>(\$12)</b>	<b>\$5,032</b>
<b>Programs</b>									
Agency Operations	\$12,186	\$10	\$144	\$149		\$3	\$12,492		\$12,492
U.S. Seaway Asset Renewal Program	\$16,317						\$16,317	(\$617)	\$15,700
<b>Program Sub-Total</b>	<b>\$28,503</b>	<b>\$10</b>	<b>\$144</b>	<b>\$149</b>		<b>\$3</b>	<b>\$28,909</b>	<b>(\$617)</b>	<b>\$28,192</b>
<b>GRAND TOTAL</b>	<b>\$33,224</b>	<b>\$30</b>	<b>\$192</b>	<b>\$199</b>	<b>\$197</b>	<b>\$11</b>	<b>\$33,853</b>	<b>(\$629)</b>	<b>\$33,224</b>

<sup>1</sup> The SLSDC Fund (69x4089) is proposed to include \$32,324,000 in an appropriation from the Harbor Maintenance Trust Fund (69-8003) and \$900,000 in estimated SLSDC non-federal revenues. Each year, the SLSDC, as a government corporation, generates non-federal income from such sources as interest on investments, rental payments, pleasure craft tolls, tug services, and duty free store revenues.

<sup>2</sup> "FY 2011 Pay Raises" column includes \$68,000 for three-quarters of the General Schedule (GS) pay increase of 1.4 percent and \$124,000 for a full year of the Wage Grade (WG) pay increase of 2.5 percent.

<sup>3</sup> "WCF/GSA Rent Increase" column includes increases of \$185,000 for the DOT Working Capital Fund (WCF) and \$12,000 for GSA rent for Washington Headquarters office space.

**EXHIBIT II-7**  
**WORKING CAPITAL FUND**  
**Saint Lawrence Seaway Development Corporation**  
**Appropriations**  
*(In thousands of dollars)*

<u>ACCOUNT NAME</u>	<u>FY 2010 ENACTED</u>	<u>FY 2011 REQUEST</u>	<u>CHANGE</u>
<b>DIRECT:</b>			
Operations and Maintenance - HMTF (69-8003)	\$401	\$586	\$185
	-----	-----	-----
<b>SLSDC TOTALS:</b>	<b>\$401</b>	<b>\$586</b>	<b>\$185</b>

**EXHIBIT II-8**  
**Saint Lawrence Seaway Development Corporation**  
**PERSONNEL RESOURCE -- SUMMARY**  
**Total Full-Time Equivalents**

<u>ACCOUNT(S)</u>	<u>FY 2009 ACTUAL</u>	<u>FY 2010 ENACTED</u>	<u>FY 2011 REQUEST</u>
Operations and Maintenance - HMTF (69-8003)	138	157	157
	-----	-----	-----
<b>TOTAL FTEs:</b>	<b>138</b>	<b>157</b>	<b>157</b>

**EXHIBIT II-9**  
**Saint Lawrence Seaway Development Corporation**  
**RESOURCE SUMMARY -- STAFFING**  
**Full-Time Permanent Positions**

<u>ACCOUNT(S)</u>	<u>FY 2009 ACTUAL</u>	<u>FY 2010 ENACTED</u>	<u>FY 2011 REQUEST</u>
Operations and Maintenance - HMTF (69-8003)	138	157	157
	-----	-----	-----
<b>TOTAL POSITIONS:</b>	<b>138</b>	<b>157</b>	<b>157</b>

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**Budget Request by  
Approp Account**





# **Operations and Maintenance (69-8003)**

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**DEPARTMENT OF TRANSPORTATION  
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION**

**TRUST FUNDS**

**OPERATIONS AND MAINTENANCE**

**(Harbor Maintenance Trust Fund)**

For necessary expenses for operations, maintenance, and capital asset renewal of those portions of the St. Lawrence Seaway owned, operated, and maintained by the Saint Lawrence Seaway Development Corporation, \$32,324,000, to be derived from the Harbor Maintenance Trust Fund, pursuant to Public Law 99-662. (*Department of Transportation Appropriations Act, 2010.*)

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

<b>Identification code 69-8003-0-7-403</b>	<b>2009 ACTUAL</b>	<b>2010 ENACTED</b>	<b>2011 REQUEST</b>
<b>Obligations by program activity:</b>			
10.00 Total new obligations (object class 25.2)	31,842	32,324	32,324
<b>Budgetary resources available for obligation:</b>			
22.00 New budget authority (gross)	31,842	32,324	32,324
23.95 Total new obligations (-)	(31,842)	(32,324)	(32,324)
<b>New budget authority (gross), detail:</b>			
<b>Discretionary</b>			
40.26 Appropriation (trust fund, definite)	31,842	32,324	32,324
40.75 Reduction	...	...	...
43.00 Appropriation (total discretionary)	31,842	32,324	32,324
<b>Change in unpaid obligations:</b>			
73.10 Total new obligations	31,842	32,324	32,324
73.20 Total outlays (gross) (-)	(31,842)	(32,324)	(32,324)
<b>Outlays (gross), detail:</b>			
86.90 Outlays from new discretionary authority	31,842	32,324	32,324
<b>New budget authority and outlays:</b>			
89.00 Budget authority	31,842	32,324	32,324
90.00 Outlays	31,842	32,324	32,324

The Water Resources Development Act of 1986 authorizes use of the Harbor Maintenance Trust Fund as the major source of funding for the Corporation's operations and maintenance activities.

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

<u>YEAR</u>	<u>REQUEST</u>	<u>YEAR</u>	<u>ENACTED</u>
2001	0 /1	2001	\$12,975,391 /2
2002	\$13,345,000	2002	\$13,305,000 /3
2003	\$14,086,000	2003	\$13,974,000 /4
2004	\$14,400,000	2004	\$14,273,000 /5
2005	\$15,900,000	2005	\$15,707,000 /6
2006	\$ 8,000,000 /7	2006	\$16,121,000 /8
2007	\$ 7,920,000 /9	2007	\$16,223,160 /10
2008	\$17,392,000	2008	\$17,392,000
2009	\$31,842,000	2009	\$31,842,000
2010	\$32,324,000	2010	\$32,324,000
2011	\$32,324,000		

1/ Proposed as a performance-based organization using mandatory (permanent) budget authority.

2/ Reflects reduction of \$28,609 (.22%) pursuant to P.L. 106-554 (Sec. 1403).

3/ Reflects reductions of \$11,000 pursuant to P.L. 107-87 (Sec. 349) for TASC, \$10,000 pursuant to P.L. 107-117 (Sec. 1106) for TASC, and \$19,000 pursuant to P.L. 107-206 (Sec. 1403).

4/ Reflects reductions of \$91,559 pursuant to P.L. 108-7 (Sec. 601) and \$20,000 pursuant to P.L. 108-7 (Sec. 362).

5/ Reflects reductions of \$84,960 (0.59%) pursuant to P.L. 108-199 (Division H, Sec. 168(b)) and \$42,006 pursuant to P.L. 108-199 (Division F, Sec. 517).

6/ 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)

7/ 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.

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

9/ 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.

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

# **SLSDC Fund**

## **(69x4089)**

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**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. (*Department of Transportation Appropriations Act, 2010.*)

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## EXHIBIT III-1

### SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION Summary by Program Activity (In thousands of dollars)

	<b><u>FY 2009 ACTUAL</u></b>	<b><u>FY 2010 ENACTED</u></b>	<b><u>FY 2011 REQUEST</u></b>	<b><u>CHANGE (2010-11)</u></b>
<b><u>Appropriations Request</u></b>				
Operations and Maintenance (HMTF)	\$31,842	\$32,324	\$32,324	\$0
<b><u>Non-Fed. Revenues/ Reserve Drawdown</u></b>	<b><u>\$2,200</u></b>	<b><u>\$900</u></b>	<b><u>\$900</u></b>	<b><u>\$0</u></b>
<b>Total SLSDC Funding:</b>	<b><u>\$34,042</u></b>	<b><u>\$33,324</u></b>	<b><u>\$33,324</u></b>	<b><u>\$0</u></b>
<b><u>Total Program Budget</u></b>				
<b><u>SLSDC Fund – 69x4089 <sup>1</sup></u></b>				
Agency Operations	\$16,207	\$16,907	\$17,524	\$617
Seaway Asset Renewal Program	\$17,535	\$16,317	\$15,700	(\$617)
<b>Total:</b>	<b><u>\$33,742</u></b>	<b><u>\$33,224</u></b>	<b><u>\$33,224</u></b>	<b><u>\$0</u></b>
<b>FTEs:</b>	<b>138</b>	<b>157</b>	<b>157</b>	<b>0</b>

<sup>1</sup> The SLSDC Fund (69x4089) for FY 2011 is proposed to include \$32.324 million in an appropriation from the Harbor Maintenance Trust Fund (HMTF) and \$900,000 in non-federal revenues. Each year, the SLSDC, as a government corporation, generates non-federal income from such sources as interest on investments, rental payments, pleasure craft tolls, tug services, and duty free store revenues.

### **Program and Performance Statement**

The SLSDC's total program budget request for FY 2011 is \$33.2 million to fund general agency operations (\$17.5 million) as well as 20 capital and non-capital maintenance projects included in the third year of the SLSDC's multi-year Asset Renewal Program (ARP) (\$15.7 million) (*see pages 34-38 for ARP project estimates and descriptions*). Funding for the request is proposed to be derived from an appropriation from the Harbor Maintenance Trust Fund (HMTF) (\$32.3 million) and SLSDC non-federal revenues (estimated at \$900,000).

SLSDC programs and activities, including the ARP, are principally focused on meeting the Department's Global Connectivity 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 throughout the waterway's history, beginning in 1959. In addition, the SLSDC's FY 2011 budget request also supports the Departmental strategic goals of Security, Preparedness and Response, and Organizational Excellence.

**EXHIBIT III-2**

**SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION  
SLSDC FUND (69x4089)**

**SUMMARY ANALYSIS OF CHANGES FROM FY 2010 TO FY 2011  
(In thousands of dollars)**

<b>Item</b>	<b>Change from FY 2010 to FY 2011</b>	<b>FY 2011 PC&amp;B by Program</b>	<b>FY 2011 FTEs by Program</b>	<b>FY 2011 Contract Expenses</b>	<b>Total</b>
<b>FY 2010 Base (Enacted)</b>		<b>Note: Columns are Non-Add</b>			
<b>SLSDC Fund (69x4089) <sup>1</sup></b>			<b>157</b>		<b>\$33,224</b>
<b>Adjustments to Base</b>					
Annualization of 2010 Pay Raises	\$ 30				
2011 Pay Raises (GS and WG)	192				
Personnel Benefits	199				
Working Capital Fund	185				
DOT HQ Rent	12				
Non-Pay Inflation	11				
<b>Subtotal, Adjustments to Base</b>					<b>\$ 629</b>
<b>Program Changes</b>					
Reductions to Asset Renewal Program Year Three Projects	(\$ 617)				
Reductions to staff travel and supplies	(12)				
<b>Subtotal, Program Changes</b>					<b>(\$629)</b>
<b>FY 2011 Request (69x4089)</b>			<b>157</b>		<b>\$33,324</b>

<sup>1</sup> The SLSDC Fund (69x4089) for FY 2011 is proposed to include \$32.324 million in an appropriation from the Harbor Maintenance Trust Fund (HMTF) and \$900,000 in non-federal revenues. Each year, the SLSDC, as a government corporation, generates non-federal income from such sources as interest on investments, rental payments, pleasure craft tolls, tug services, and duty free store revenues.

## **DETAILED JUSTIFICATION PROGRAM ACTIVITY NO. 1 – AGENCY OPERATIONS**

**FY 2011 Request – \$17.524 million / 157 FTEs**

### **Overview:**

Activities financed by this program include functions described below. Corporation objectives are to continue to operate the system in a safe, secure, reliable, and efficient manner while interfacing with a multitude of diverse stakeholders that share the common goal of expanding commerce on the Great Lakes St. Lawrence Seaway System.

*Lock Operations* – 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).

*Maintenance, Marine, and Engineering* – 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 on existing facilities will continue to be performed during the non-navigation winter months. Marine operations consist of commissioning and decommissioning aids to navigation, channel dredging and maintenance, tugboat and other floating equipment services.

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

*Security and Infrastructure Protection* – The Corporation continues to perform its security program focused on protecting the U.S. sections of the St. Lawrence Seaway, including the two U.S. locks and other assets in Massena, N.Y., and its employees.

*Administrative* – Executive management and administration of the Corporation includes legal, civil rights, accounting, procurement, information technology, personnel administration, public relations, and other related administrative support services.

### **FY 2010 Base:**

The FY 2010 enacted level for SLSDC operations and maintenance activities to be funded from the agency's revolving fund account (69x4089) is \$16.9 million.

## **Anticipated FY 2010 Accomplishments:**

In FY 2010, the SLSDC will:

- Provide 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 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<sub>2</sub>O 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.
- Utilize and enhance AIS/GPS technologies to more efficiently manage vessel traffic control and lock transits. The St. Lawrence Seaway was the first inland waterway in the western hemisphere to implement an operational AIS vessel traffic system.
- Participate in various federal and department-wide activities, including electronic payroll and training, disaster management, and automated staffing.

## **FY 2011 Budget Request:**

The FY 2011 request for agency operations of \$17.5 million is \$617,000 above the FY 2010 enacted level. Baseline increases of \$629,000 include:

- \$199,000 increase in personnel-related benefits;
- \$192,000 increase in employee pay increases (general schedule and wage grade);
- \$185,000 increase in DOT Working Capital Fund (WCF) projections;
- \$30,000 increase for the annualization of the FY 2010 Pay Act;
- \$12,000 increase in GSA/DOT rent for SLSDC Washington Office staff; and
- \$11,000 increase for inflation to non-pay object classes.

An additional program reduction of \$12,000 is proposed for agency travel and supplies.

In FY 2011, the SLSDC will continue to perform its core programs including lock operations, vessel traffic control, safety and environmental inspections of ocean vessels, waterway management, and trade development. To maximize its funding for operations and maintenance activities and ARP projects and equipment, the SLSDC constantly works toward attaining its OMB efficiency goal and internal performance measure of managing agency administrative expenses as a percentage of all operating costs at 25 percent or less

(administrative cost ratio). This level of overhead expenses, well below baseline federal and state government levels, was established based on an analysis of private-sector goals for companies of similar size. In FY 2009, the SLSDC's administrative cost percentage was 21 percent.

Administrative expenses include executive management and administration of the Corporation. These programs include legal, policy, civil rights, accounting, procurement, human resources, information technology, and related administrative support services. 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 SLSDC's FY 2011 budget request for "Agency Operations" also includes \$371,000 in an information technology (IT) investment related to the common IT services provided by the Department's Office of the Chief Information Officer (OCIO) to all of DOT's Operating Administrations. These services, funded through the WCF, include: IT security; network engineering; voice, cable, and wireless; campus area network; desktop support; server operations; and directory and messaging services (e-mail). In FY 2009, the SLSDC's Massena, N.Y., Microsoft-based systems and associated infrastructure were migrated to the Department's Common Operating Environment. The FY 2011 request represents the first full-year request of the fully migrated IT environment.

In FY 2011, the SLSDC will also continue to strengthen existing trading partner relations and develop new markets through its trade development initiatives, in an effort to increase Seaway commerce. The Seaway is positioned for significant growth in new business as the waterway has become a viable alternative for shippers looking to avoid highway and railway congestion. In 2009, 1.6 million metric tons of new cargo transited the system, including windmill parts and biofuels, due to binational efforts to market the waterway and reduce user costs.

The SLSDC will continue to identify niche commodities and new markets to further increase Seaway trade. The St. Lawrence Seaway is expected to become an even more important commercial transportation route over the next decade as the U.S. and Canadian governments seek to ease other modal congestion, especially along North America's East Coast and Midwest region.

The SLSDC, Canadian SLSMC, and other U.S. and Canadian federal partners, continue to make notable progress in ballast water management and efforts to prevent any new introductions of aquatic invasive species (AIS) via commercial vessels entering Seaway waters. In 2008, the SLSDC implemented regulations 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 the other U.S. and Canadian partners, have enforced ballast water inspections of all vessels to ensure the regulations are carried out. In 2009, 100 percent of cargo vessels bound for Great Lakes Seaway System ports received a ballast water or ballast tank exam. Ships that failed to properly manage their ballast tanks were 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. As of January 2010, the Great Lakes Aquatic Nonindigenous Species Information System (GLANSIS), maintained by the National Oceanic and Atmospheric Administration (NOAA), documents that the last time a new non-native species was determined to have been established in the Great Lakes was 2006.

The FY 2011 request will allow Corporation officials to continue its efficient and effective programs and initiatives and to meet its performance goals. The SLSDC will continue to work towards achieving its goal of 99 percent system availability by providing a safe, secure, reliable, and efficient waterway and lock system. A reduction in the Seaway's availability rate could result in commercial users seeking alternative transportation routes and modes to and from North America, negatively affecting Great Lakes St. Lawrence Seaway System economic benefits while increasing road congestion, fuel use, and air emissions.



## **DETAILED JUSTIFICATION**

### **PROGRAM ACTIVITY NO. 2 – ASSET RENEWAL PROGRAM**

**FY 2011 Request – \$15.7 million / 0 FTEs**

#### **Overview:**

With the enactment of the FY 2009 Omnibus Appropriations Act, the SLSDC's multi-year Asset Renewal Program (ARP) was initiated. The ARP focuses on improving aging Seaway infrastructure, conducting maintenance dredging, investing in new technologies, purchasing new equipment, and refurbishing old facilities. The program marks the first time in the Seaway's history that a coordinated effort to repair and modernize the U.S. Seaway infrastructure has taken place.

The Seaway is comprised of perpetual assets (locks, channels, an international bridge, highway tunnel, vessel traffic control system, and accompanying facilities and equipment), which requires periodic capital reinvestment in order to continue to operate safely, reliably, and efficiently. Yet, the U.S. Seaway infrastructure has approached the end of its original "design" life, and 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. In addition to supporting the SLSDC's performance goals, the ARP also advances several key Department priorities, specifically, system performance and reliability 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. After 50 years of continuous operation in often harsh weather conditions, the Seaway infrastructure needs to be rehabilitated if its exceptional record of performance and reliability is to be maintained for the next half century.

An individual system delay or series of delays/shutdowns would seriously jeopardize the Great Lakes Seaway System's global competitiveness for the movement of agricultural and steel-related products. Although the Seaway has enjoyed a 99 percent reliability rate over its history, similar results in the future are uncertain with an aging infrastructure that has not been adequately renewed. In the competitive global market for commercial transportation, a system delay could force Seaway customers to seek alternative maritime routes and other transportation modes. An economic analysis concluded that the economic impact of a shutdown of either of the two U.S. locks would range from \$1.3-\$2.3 million per day, depending on the length of the delay.

The ARP supports the engineering considerations highlighted in the November 2007 binational *Great Lakes St. Lawrence Seaway Study*. The Study evaluated the infrastructure needs of the U.S. and Canadian Great Lakes Seaway System and assessed the economic, environmental, and engineering implications of those needs pertaining to commercial navigation. During its work on the study, the SLSDC measured its infrastructure assets using a Corps-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.

The Canadian Seaway locks along the St. Lawrence River are identical in age and design to those owned by the U.S. SLSDC. Several years ago, the Canadian Government began addressing its need for capital reinvestment in its Seaway assets. 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.

In FY 2009, the SLSDC obligated \$17.6 million for 21 Year One ARP projects. These projects included: maintenance dredging in the U.S. portion of the navigation channel (\$4.3 million); lock culvert valve machinery upgrade to hydraulic operation (\$4.1 million); structural rehabilitation and corrosion prevention work on the Seaway International Bridge (\$3.1 million), which the SLSDC co-owns with the Federal Bridge Corporation of Canada; and upstream miter gate rehabilitation at Eisenhower Lock (\$2.2 million), as well as various other structural and equipment repairs and/or replacement.

#### **FY 2010 Base:**

The FY 2010 enacted level for ARP projects and equipment is \$16.3 million from the SLSDC's revolving fund account (69x4089).

#### **Anticipated FY 2010 Accomplishments:**

ARP projects scheduled for funding in FY 2010 are:

- Project No. 3: Eisenhower Lock – Rehabilitate Mooring Buttons, Pins, and Concrete along Guidewalls and Guardwalls (\$251,000)
- Project No. 6: Seaway International Bridge – Perform Structural Rehabilitation and Corrosion Prevention (\$5,773,000)
- Project No. 7: Both Locks – Culvert Valve – Replace with Single Skin Valves (\$603,000)
- Project No. 8: Floating Navigational Aids – Replace (\$60,000)
- Project No. 9: Corporation Equipment – Replace Heavy and Light Equipment, Maintenance Vehicles, and Shop Equipment (\$251,000)
- Project No. 10: Both Locks – Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities (\$75,000)
- Project No. 11: Fixed Navigational Aids – Rehabilitate (\$201,000)
- Project No. 12: Corporation Equipment – Upgrade/Replace Floating Plant (\$503,000)
- Project No. 14: Corporation Facilities – Replace Paving and Drainage Infrastructure (\$1,508,000)
- Project No. 18: Eisenhower Lock – Vertical Lift Gate – Replace Wire Ropes (\$503,000)
- Project No. 19: Both Locks – Upgrade Electrical Distribution Equipment (\$151,000)
- Project No. 20: Both Locks – Upgrade Lock Status/Controls (\$151,000)
- Project No. 21: Both Locks – Compressed Air Systems – Upgrade/Replace (\$1,508,000)

- Project No. 22: Both Locks – Install Vessel Self Spotting Equipment (\$251,000)
- Project No. 24: Both Locks – Structural Repair – Grout Leaks in Galleries and Recesses (\$201,000)
- Project No. 25: Corporation Facilities – Upgrade/Replace Fire Alarm/Protection Systems (\$101,000)
- Project No. 26: Corporation Facilities – Upgrade Storage for Lock Spare Parts (\$201,000)
- Project No. 27: Corporation Facilities – Replace Windows and Doors Repair Building Facades (\$201,000)
- Project No. 29: Corporation Facilities – Walls, Sills, and Culverts – Rehabilitate Concrete (\$2,010,000)
- Project No. 31: Snell Lock – Rehabilitate Downstream Miter Gate (\$1,508,000)

The SLSDC expects to obligate the \$16.3 million enacted for ARP projects in FY 2010 prior to September 30, 2010. Major ARP lock projects obligated in FY 2010, including culvert valve and miter gate upgrades, will be completed following the 2011 and/or 2012 navigation seasons due to long lead times for ordering parts and equipment.

#### **FY 2011 Budget Request:**

For FY 2011, the SLSDC is proposing to fund 20 capital and maintenance infrastructure projects in Year Three of the ARP at a cost of \$15.7 million. These 20 projects, 15 of which are multi-year projects that were funded in FY 2009 and/or requested in FY 2010, will address various needs for the two U.S. Seaway locks, the Seaway International Bridge connecting Ontario and New York, operational systems and networks, and Corporation facilities and equipment.

Major ARP projects scheduled for funding in FY 2011 include hydraulic upgrades at the Seaway locks (\$4.5 million), rehabilitation of the downstream miter gate at Eisenhower Lock (\$4.3 million), and the completion of a three-year structural rehabilitation project at the Seaway International Bridge (\$3.5 million).

The SLSDC's FY 2011 ARP budget request also includes \$150,000 in information technology (IT) investments related to the Corporation's Automatic Identification System (AIS) / Global Positioning System (GPS) project (\$50,000) and Homeland Security Presidential Directive (HSPD)-12 requirements (\$100,000).

A summary of the proposed FY 2011 ARP and project descriptions follows:

<b>FY 2011 U.S. Seaway Asset Renewal Program (ARP) Projects</b>		
<b>ARP Project Number</b>	<b>Project Name</b>	<b>FY 2011 Request</b>
1	Snell Lock – Replace Fendering Downstream Guidewall Extension	\$ 10,000
2	Eisenhower Lock – Rehabilitate Downstream Miter Gate	4,250,000
4	Both Locks – Culvert Valve Machinery – Upgrade to Hydraulic Operation	4,500,000
6	Seaway International Bridge – Perform Structural Rehabilitation and Corrosion Prevention	3,466,000
7	Both Locks – Culvert Valves – Replace with Single Skin Valves	300,000
8	Floating Navigational Aids – Replace	61,000
9	Corporation Equipment – Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	100,000
10	Both Locks – Upgrade Power Supply Infrastructure from Moses-Saunders Dam	50,000
11	Fixed Navigational Aids – Rehabilitate	100,000
12	Corporation Equipment – Upgrade/Replace Floating Plant	505,000
13	Corporation Facilities – Replace Roofs	130,000
14	Corporation Facilities – Replace Paving and Drainage Infrastructure	750,000
15	Eisenhower Lock Highway Tunnel – Rehabilitate	650,000
16	Seaway System – Upgrade GPS/AIS/TMS Technologies	50,000
19	Corporation Facilities – Upgrade Electrical Distribution Equipment	150,000
20	Both Locks – Upgrade Lock Status/Controls	75,000
32	Snug Harbor – Rehabilitate Spare Gate Storage and Assembly Area	253,000
34	Both Locks – Improve Ice Control	100,000
35	Vessel Mooring Cells – Rehabilitate and Extend	100,000
51	Corporation Facilities – Upgrade Physical Security to Meet HSPD-12 Requirements	100,000
<b>ARP Totals (20 projects):</b>		<b>\$15,700,000</b>

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, networks and communications infrastructure, and 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.

It is also important to note that 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 funding targets for those years as estimated and 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.

**ARP Project No. 1: Snell Lock – Replace Fendering Downstream Guidewall Extension (Capital Project) (\$10,000)** – Funding in FY 2011 will provide for the installation of the fendering purchased with ARP funds in FY 2009. *(Project funds obligated in FY 2009)*

**ARP Project No. 2: Eisenhower Lock – Rehabilitate Downstream Miter Gate (Capital Project) (\$4,250,000)** – This project is to completely rehabilitate the miter gate at the downstream end of Eisenhower Lock. It includes replacing worn and/or damaged components including the miter and quoin contact blocks, pintles, gate anchorages and diagonals to insure proper functioning of the miter gate.

**ARP Project No. 4: Both Locks – Culvert Valve Machinery – Upgrade to Hydraulic Operation (Capital Project) (\$4,500,000)** – This project is for replacing the operating machinery for the culvert valves at Eisenhower and Snell Locks, which are utilized for filling and emptying the locks. This is the second and final year of the project with the operating machinery for the south filling and emptying valves at both locks being replaced. This machinery is more than 50 years old and the open gearing is exhibiting macropitting. This equipment needs to be upgraded to insure its continued reliability. Failure of this equipment will cause delays to shipping while repairs are made. Due to the fact that this machinery was custom made and spare parts are limited, repairs to multiple pieces of machinery using the spare parts that are on-hand would not be possible. The upgrade will include new hydraulic operating machinery to match the upgrades made at the Canadian Seaway locks and other similar locks in the United States. *(Project funds obligated in FY 2009)*

**ARP Project No. 6: Seaway International Bridge – Perform Structural Rehabilitation and Corrosion Prevention (Non-Capital Maintenance Project) (\$3,466,000)** – This project is for rehabilitation of the structural components of the south span of the bridge between Rooseveltown, N.Y., and Cornwall Island, which crosses the Seaway navigation channel. This project is designed to stop the corrosion currently experienced on many portions of the bridge structure and prevent the need for large-scale structural or even bridge replacement in the future. The SLSDC owns 68 percent of the south span of the bridge and the budget request reflects the U.S. prorated amount for the project. The Canadian Federal Bridge Corporation owns the remaining 32 percent of the south span. *(Project funds obligated in FY 2009 and enacted for FY 2010)*

**ARP Project No. 7: Both Locks – Culvert Valves – Replace with Single Skin Valves (Capital Project) (\$300,000)** – This project is for replacing the double skin culvert valves utilized for filling and emptying the locks with single skin valves. Cracking of major structural members has occurred and with the double skin construction, the structural members are not accessible for inspection, blast cleaning and painting. The culvert valves are more than 50 years old and are corroding from the inside. The new single skin valves will provide access to the

structural members for inspection and maintenance. The failure of a culvert valve would cause a delay to shipping while the damaged valve was removed and replaced. Dependant on the type of failure, other lock operating components/ equipment could be damaged causing the lock to be out of service for a longer time. *(Project funds enacted for FY 2010)*

**ARP Project No. 8: Floating Navigational Aids – Replace (Capital Project) (\$61,000)** – 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 enacted for FY 2010)*

**ARP Project No. 9: Corporation Equipment – Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment (Capital Equipment) (\$100,000)** – This is an ongoing program to replace heavy and light equipment, vehicles and shop equipment as it becomes worn out and unserviceable. Heavy and light equipment includes such items as a crane, dump truck, snow plow, backhoe, grader, front end loader and shop equipment 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 and enacted for FY 2010)*

**ARP Project No. 10: Both Locks – Upgrade Power Supply Infrastructure from Moses-Saunders Dam (Non-Capital Maintenance Project) (\$50,000)** – This project is for upgrading the infrastructure that supplies power to Eisenhower and Snell Locks. The power is furnished directly from the Moses-Saunders Power Dam over infrastructure that is more than 50 years old. The loss of power from the Moses-Saunders Power Dam makes it necessary to utilize diesel generators, which are expensive to operate, to continue operation of the locks. *(Project funds obligated in FY 2009 and enacted for FY 2010)*

**ARP Project No. 11: Fixed Navigational Aids – Rehabilitate (Capital Project) (\$100,000)** – This project is for rehabilitating fixed navigational aids in the Seaway for which the Corporation is responsible. 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 eroding and cracking. The inspection of these structures was done by divers and the majority of the repairs will require divers and the use of a tug and barge with crane to complete. 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 2009 and enacted for FY 2010)*

**ARP Project No. 12: Corporation Equipment – Upgrade/Replace Floating Plant (Capital Project) (\$505,000)** – This is an ongoing program to rehabilitate and/or replace the Corporation's floating plant which is utilized for maintaining the locks and navigation channels as it becomes unreliable and/or unserviceable. In FY 2011, plans are to rehabilitate/upgrade the Corporation's gatelifter. The gatelifter is a 300-ton capacity floating derrick that was built in the 1950s. It was designed to replace a miter gate with the spare miter gate which is stored on site should the need arise. The spare miter gate was fabricated in sections and the gatelifter is also required to assemble the spare gate in the required configuration. *(Project funds obligated in FY 2009 and enacted for FY 2010)*

**ARP Project No. 13: Corporation Facilities – Replace Roofs (Capital Project) (\$130,000) –**

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 15-20 years and have exceeded, by several years, the end of that time frame. This project is for replacing the roof on the Compressor/Transformer Building at Eisenhower Lock. *(Project funds obligated in FY 2009)*

**ARP Project No. 14: Corporation Facilities – Replace Paving and Drainage Infrastructure (Capital Project) (\$750,000) –**

This project is for improving the pavement and drainage along lock approach walls, Corporation roadways and public parking and work areas at all Corporation facilities. In Upstate New York, the damage to pavements caused by winter conditions is significant, and 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. This work will proceed on a priority basis contingent upon annual condition inspections. *(Project funds obligated in FY 2009 and enacted for FY 2010)*

**ARP Project No. 15: Eisenhower Lock Highway Tunnel – Rehabilitate (Capital Project) (\$650,000) –**

This is an ongoing project to maintain the highway tunnel which goes through the upper sill area of Eisenhower Lock to provide the only land 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, replacing damaged/missing tiles from the walls and ceiling, replacing the lighting in the tunnel, 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. Any problems that would make it necessary to close the tunnel for repair would have very significant impacts. In FY 2011, the project is for upgrading the lighting to meet current standards. The lights in the tunnel were installed during the original construction and it is difficult to procure replacement parts. Further, a study completed in FY 2009 revealed the lighting fails to meet current tunnel lighting standards. *(Project funds obligated in FY 2009)*

**ARP Project No. 16: Seaway System – Upgrade GPS/AIS/TMS Technologies (Capital Project) (\$50,000) –**

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)*

**ARP Project No. 19: Corporation Facilities – Upgrade Electrical Distribution Equipment (Capital Project) (\$150,000) –**

This project is for upgrading electrical distribution equipment at both Eisenhower and Snell Locks and at the Maintenance Facility to insure continued reliability. The majority of this equipment is more than 50 years old. This project is for completing the upgrades at Snell Lock and for commencing with the upgrades at Eisenhower Lock. *(Project funds enacted for FY 2010)*

**ARP Project No. 20: Both Locks – Upgrade Lock Status/Controls (Capital Project) (\$75,000)** – This project is for upgrading the lock/equipment status systems and the lock operating controls at both Eisenhower and Snell Locks. At present only the most critical components are monitored and controlled by the new computerized system. Adding control of some of the less critical components and more in depth monitoring of the status of all components will improve the effectiveness of preventive maintenance activities and result in increased reliability. *(Project funds enacted for FY 2010)*

**ARP Project No. 32: Snug Harbor – Rehabilitate Spare Gate Storage and Assembly Area (Capital Project) (\$253,000)** – This project is for rehabilitating the spare miter gate storage and assembly area at Snug Harbor. The work will include repair of the spare gate assembly pads and their supporting piles and blast cleaning and painting of the spare miter gates and gate assembly towers.

**ARP Project No. 34: Both Locks – Improve Ice Control (Capital Project) (\$100,000)** – 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 during times when there is ice in the water more efficient and would minimize damages to the lock components and transiting vessels.

**ARP Project No. 35: Vessel Mooring Cells – Rehabilitate and Extend (Capital Project) (\$100,000)** – 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.

**ARP Project No. 51: Corporation Facilities – Upgrade Physical Security to Meet HSPD-12 Requirements (Capital Project) (\$100,000)** – This project is for procuring the Personal Identity Verification (PIV) cards issued by the Department and for procuring and installing the necessary ID smart card readers and other required infrastructure to meet HSPD-12 requirements.

#####



**EXPLANATION OF FUNDING CHANGES  
PROGRAM ACTIVITY NO. 1 – AGENCY OPERATIONS**

**NET INCREASE OF \$617,000**

**Overview:**

Increases to the SLSDC’s “Agency Operations” budget request are entirely baseline adjustments, principally to personnel compensation and benefits and Working Capital Fund projections. A small program reduction is also included to provide additional funding to ARP projects. Explanations of these changes are listed below.

**Base Changes -- \$629,000:**

**Salaries and Benefits.....\$421,000**

Net increase includes annualization of FY 2010 Pay Act (\$30,000), FY 2011 General Schedule Pay Act (\$68,000), FY 2010 SLSDC union wage grade pay raise (\$124,000), and personnel-related benefits (\$199,000).

**DOT Working Capital Fund.....\$185,000**

Net increase in DOT Working Capital Fund based on projections provided by OST. The majority of the projected increase (\$153,000) is related to information technology services. In FY 2009, the SLSDC completed a migration of its Massena, N.Y., Microsoft-based systems and associated infrastructure to the Department’s Common Operating Environment. The FY 2011 request represents the first full-year request of the fully migrated IT environment.

**GSA/DOT Rent for Washington Headquarters Office Space .....\$12,000**

Net increase based on latest estimates from OST and GSA.

**Non-Pay Inflation.....\$11,000**

Net increase for inflation is provided for non-pay object classes (0.5 percent).

**Program Changes -- (\$12,000):**

**Travel and Supplies ..... (\$12,000)**

Net reductions to agency travel and supplies.

**EXPLANATION OF FUNDING CHANGES  
PROGRAM ACTIVITY NO. 2 – ASSET RENEWAL PROGRAM**

**NET DECREASE OF \$617,000**

**Overview:**

Due to the projected year-to-year fluctuations in the Seaway's ARP estimates, as well as adjusted and new projects over the life of the program, the FY 2011 request to complete 20 projects is \$15.7 million, a reduction of \$617,000 compared to the FY 2010 enacted level for the ARP.

**DEPARTMENT OF TRANSPORTATION  
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION**

**Program and Financing**

*(In thousands of dollars)*

<b>Identification code 69-4089-0-3-403</b>	<b>2009 ACTUAL</b>	<b>2010 ENACTED</b>	<b>2011 REQUEST</b>
<b>Obligations by program activity:</b>			
00.01 Operations and maintenance	23,733	26,680	21,040
00.02 Replacements and improvements	10,177	6,544	12,184
10.00 Total new obligations	33,910	33,224	33,224
<b>Budgetary resources available for obligation:</b>			
<b>Unobligated balance carried forward, start of year:</b>			
21.47 Authority to borrow	3,200	3,200	3,200
21.90 Fund balance	11,439	11,284	11,284
21.40 Unobligated balance carried forward, start of year	14,639	14,484	14,484
22.00 New budget authority (gross)	32,915	33,224	33,224
22.10 Resources available from recoveries of prior year obligations	811	...	...
23.90 Total budgetary resources available for obligation	48,365	47,708	47,708
23.95 Total new obligations (-)	(33,910)	(33,224)	(33,224)
<b>Unobligated balance carried forward, end of year:</b>			
24.47 Authority to borrow	3,200	3,200	3,200
24.90 Fund balance	11,284	11,284	11,284
24.40 Unobligated balance carried forward, end of year	14,484	14,484	14,484
<b>Net budget authority (gross), detail:</b>			
Mandatory: Spending authority from offsetting collections:			
69.00 Offsetting collections (cash)	32,883	33,224	33,224
69.10 Change in uncollected payments from Federal sources	32	...	...
69.90 Spending authority from offsetting collections (total)	32,915	33,224	33,224
<b>Change in obligated balance:</b>			
72.40 Obligated balance, start of year	6,891	18,516	18,516
73.10 Total new obligations	33,910	33,224	33,224
73.20 Total outlays (gross) (-)	(21,412)	(33,224)	(33,224)
73.45 Recoveries of prior year obligations (-)	(841)	...	...
74.00 Change in uncollected payments from Federal sources	(32)	...	...
74.40 Obligated balance, end of year	18,516	18,516	18,516
<b>Outlays (gross), detail:</b>			
86.97 Outlays from new mandatory authority	21,412	33,224	33,224
<b>Offsets:</b>			
Against gross budget authority and outlays:			
Offsetting collections (cash) from:			
88.00 Federal sources	31,842	32,324	32,324
88.40 Non-Federal sources	1,041	900	900
88.90 Total offsetting collections (cash)	32,883	33,224	33,224
Against gross budget authority only:			
88.95 Change in uncollected payments from Federal sources	32	...	...
<b>Net budget authority and outlays:</b>			
89.00 Budget authority (net)	...	...	...
90.00 Outlays (net)	(11,471)	...	...

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

Identification code 69-4089-0-3-403	2008 ACTUAL	2009 ACTUAL
<b>Assets:</b>		
Federal assets:		
1101 Fund balance with Treasury	7,175	18,492
1106 Receivables, net	...	...
1107 Advances and prepayments	...	...
Non-Federal assets:		
1201 Investments in non-Federal securities	7	7
1206 Receivables, net	108	113
1207 Advances and prepayments	...	...
Other Federal assets:		
1801 Cash and other monetary assets	12,018	12,190
1803 Property, plant and equipment, net	73,181	73,533
1901 Other assets	3,707	3,484
<b>1999 Total assets</b>	<b>96,196</b>	<b>107,819</b>
<b>Liabilities:</b>		
Federal liabilities:		
2101 Accounts payable	...	...
Non-Federal liabilities:		
2201 Accounts payable	2,790	3,464
2206 Pension and other actuarial liabilities	3,705	3,457
2207 Other	...	...
<b>2999 Total liabilities</b>	<b>6,495</b>	<b>6,921</b>
<b>Net Position:</b>		
3200 Invested capital	88,220	88,662
3300 Cumulative results of operations	1,481	12,236
<b>3999 Total net position</b>	<b>89,701</b>	<b>100,898</b>
<b>4999 Total liabilities and net position</b>	<b>96,196</b>	<b>107,819</b>

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

<b>Identification code 69-4089-0-3-403</b>		<b>2009 ACTUAL</b>	<b>2010 ENACTED</b>	<b>2011 REQUEST</b>
Personnel compensation:				
11.1	Full-time permanent	9,307	9,670	9,876
11.3	Other than full-time permanent	213	213	218
11.5	Other personnel compensation	547	547	558
<b>11.9</b>	<b>Total personnel compensation</b>	<b>10,067</b>	<b>10,430</b>	<b>10,652</b>
<b>12.1</b>	<b>Civilian personnel benefits</b>	<b>3,070</b>	<b>3,289</b>	<b>3,488</b>
	<b>Personnel compensation and benefits</b>	<b>13,137</b>	<b>13,719</b>	<b>14,140</b>
<b>21.0</b>	<b>Travel and transportation of persons</b>	<b>246</b>	<b>246</b>	<b>241</b>
<b>22.0</b>	<b>Transportation of things</b>	<b>8</b>	<b>8</b>	<b>8</b>
23.1	Rental payments to GSA	296	305	317
23.2	Rental payments to others	13	13	13
23.3	Communications, utilities, and miscellaneous	197	198	199
<b>23.0</b>	<b>Total rent, communications, and utilities</b>	<b>506</b>	<b>516</b>	<b>529</b>
<b>24.0</b>	<b>Printing and reproduction</b>	<b>31</b>	<b>31</b>	<b>31</b>
25.1	Advisory and assistance services	23	23	23
25.2	Other services	1,316	214	215
25.3	Purchases of goods/services from Government accounts	657	727	912
25.4	Operation and maintenance of facilities (includes ARP)	6,907	9,773	3,516
25.6	Medical care	13	13	13
25.7	Operation and maintenance of equipment	323	325	327
<b>25.0</b>	<b>Total other contractual services</b>	<b>9,239</b>	<b>11,075</b>	<b>5,006</b>
<b>26.0</b>	<b>Supplies and materials</b>	<b>1,080</b>	<b>1,085</b>	<b>1,085</b>
<b>31.0</b>	<b>Equipment (includes ARP)</b>	<b>2,197</b>	<b>251</b>	<b>100</b>
<b>32.0</b>	<b>Land and structures (includes ARP)</b>	<b>7,466</b>	<b>6,293</b>	<b>12,084</b>
	<b>Total other-than-personnel</b>	<b>20,773</b>	<b>19,505</b>	<b>19,084</b>
<b>99.9</b>	<b>Total obligations</b>	<b>33,910</b>	<b>33,224</b>	<b>33,224</b>

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

Identification code 69-4089-0-3-403	2009 ACTUAL	2010 ENACTED	2011 REQUEST
<b>Operations and Maintenance:</b>			
1. Lock and Marine Operations	3,674	3,784	3,913
2. Maintenance and Engineering	11,346	13,921	7,846
3. General and Development	4,795	4,939	5,107
4. Administrative	3,918	4,036	4,174
<b>Total Operations and Maintenance</b>	<b>23,733</b>	<b>26,680</b>	<b>21,040</b>
<b>Replacements and Improvements:</b>			
1. Equipment	1,601	251	100
2. Capital Projects	8,576	6,293	12,084
<b>Total Replacements and Improvements</b>	<b>10,177</b>	<b>6,544</b>	<b>12,184</b>
<b>Total Obligations</b>	<b>33,910</b>	<b>33,224</b>	<b>33,224</b>
<b>Authorized Positions by Activity:</b>			
1. Lock and Marine Operations	46	46	46
2. Maintenance and Engineering	63	63	63
3. General and Development	16	16	16
4. Administrative	32	32	32
<b>Total Authorized Positions</b>	<b>157</b>	<b>157</b>	<b>157</b>

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

<b>Identification code 69-4089-0-3-403</b>	<b>2009 ACTUAL</b>	<b>2010 ENACTED</b>	<b>2011 REQUEST</b>
<b>Field Offices:</b>			
Business travel			
Operations	24	24	24
Administrative	0	0	0
Travel associated with training	40	40	39
Travel to and from Washington, D.C.	11	11	11
Travel to and from Massena, N.Y.	0	0	0
Foreign travel	0	0	0
Canadian travel	19	19	18
<b>Subtotal</b>	<b>94</b>	<b>94</b>	<b>92</b>
<b>DC Office:</b>			
Business travel			
Operations	14	14	14
Administrative	23	23	23
Travel associated with training	1	1	1
Travel to and from Washington, D.C.	3	3	3
Travel to and from Massena, N.Y.	45	45	44
Foreign travel	27	27	26
Canadian travel	39	39	38
<b>Subtotal</b>	<b>152</b>	<b>152</b>	<b>149</b>
<b>Grand Total</b>	<b>246</b>	<b>246</b>	<b>241</b>

**DEPARTMENT OF TRANSPORTATION  
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION  
Personnel Summary**

<b>Identification code 69-4089-0-3-403</b>	<b>2009 ACTUAL</b>	<b>2010 ENACTED</b>	<b>2011 REQUEST</b>
Total compensable work years:			
5001 Full-time equivalent employment	138	157	157
5005 Full-time equivalent of overtime and holiday hours	3	6	6



**SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION**

**Summary of Changes**

**FY 2011 Request vs. FY 2010 Enacted**

*(In thousands of dollars)*

**AGENCY OPERATIONS**

<b>Annualization of FY 2010 Pay Act Increase (Baseline Change)</b>	<b>\$</b>	<b>30</b>
This annualizes the proposed January 2010 pay act increase (2.0 percent) by providing funding for the fourth quarter.		
<b>FY 2011 Pay Act Increase (Baseline Change)</b>		<b>68</b>
This will provide three-quarter year funding for the proposed pay act increase, estimated at 1.4 percent, effective in January 2011.		
<b>FY 2011 Wage Board Increase (Baseline Change)</b>		<b>124</b>
This will provide a 2.5 percent pay increase for SLSDC wage grade personnel, effective October 2010. The increase was negotiated between SLSDC management and AFGE Local No. 1968 in the Collective Bargaining Agreement approved October 21, 2009.		
<b>Increase in Personnel Benefits (Baseline Change)</b>		<b>199</b>
This increase is for personnel-related benefits provided to employees (Health Insurance, Workers' Compensation, TSP, FERS), based on OMB guidance.		
<b>DOT Working Capital Fund (Baseline Change)</b>		<b>185</b>
Based on estimates provided by OST.		
<b>GSA/DOT Rent for Washington Headquarters Office Space (Baseline Change)</b>		<b>12</b>
Based on estimates provided by OST and GSA.		
<b>Non-Pay Inflationary Increases (Baseline Change)</b>		<b>11</b>
Net increases for inflation for non-pay object classes (0.5 percent).		
<b>Program Reductions (Program Change)</b>		<b>(12)</b>
Net reductions to travel and supplies.		
<b>Total of SLSDC Agency Operations Changes</b>	<b>\$</b>	<b>617</b>

**ASSET RENEWAL PROGRAM**

<b>Seaway Asset Renewal Program (Program Change)</b>	<b>\$</b>	<b>(617)</b>
FY 2011 request level compared to the FY 2010 enacted level.		
<b>Total of SLSDC ARP Changes</b>	<b>\$</b>	<b>(617)</b>
<b>TOTAL CHANGES (FY 2011 Request vs. FY 2010 Enacted) (69x4089)</b>	<b>\$</b>	<b>-</b>

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**Budget Request by  
Performance Goal**



## **PERFORMANCE OVERVIEW**

### **SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION**

#### **Recent Performance**

In FY 2009, the SLSDC met its core performance metric of availability on the U.S. portion of the St. Lawrence Seaway. During FY 2009, the SLSDC reported a 99.4 percent system availability rate, surpassing the annual target of 99.0 percent. The SLSDC's success in this core mission area is due primarily to efficient management and operations of the locks and vessel traffic control and capital asset renewal investment in aging lock parts and machinery.

In FY 2009, the SLSDC achieved numerous successes in the area of financial management. Related to annual financial audits, the SLSDC received an unqualified opinion of its financial statements for FY 2009 with no material weaknesses or reportable conditions in November 2009. FY 2009 marked the 46<sup>th</sup> consecutive unqualified opinion or clean audit report for the Corporation.

The SLSDC also met its performance goals in all nine core OMB financial management areas and met its agency efficiency measure related to managing administrative expenses. During FY 2009, the SLSDC achieved its lowest percentage of administrative expenses as compared to its total operating expenses since it began reporting this metric in the early 1990s at 21 percent. The annual target for this measure is 25 percent.

The SLSDC has taken a number of steps in recent years to reduce administrative costs and concentrate its funding priorities on asset renewal. In 2006, the SLSDC implemented a succession planning program 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 lower costs associated with personnel compensation and benefits.

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.

#### **FY 2011 Request**

The SLSDC's total program budget request for FY 2011 is \$33.2 million to fund general agency operations (\$17.5 million) as well as 20 capital and non-capital maintenance projects included in the third year of the SLSDC's multi-year Asset Renewal Program (ARP) (\$15.7 million).

SLSDC programs and activities, including the ARP, are principally focused on meeting the Department's Global Connectivity 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 maintained a 99 percent availability rate throughout the waterway's history, beginning in 1959. In addition, the SLSDC's FY 2011 budget request also supports the Departmental strategic goals of Security, Preparedness and Response, and Organizational Excellence.

### **A Note about DOT's Strategic Goals**

The performance sections of the Department's FY 2011 budget submissions align with the current FY 2006-11 DOT Strategic Plan. The Department will release a new strategic plan in FY 2010 that will detail its new priorities and areas of emphasis. DOT expects the performance sections of the FY 2012 budget submissions to be aligned to the new strategic plan.

**EXHIBIT IV-1**  
**FY 2011 PROGRAM BUDGET BY STRATEGIC OBJECTIVE AND PERFORMANCE GOAL**  
**Saint Lawrence Seaway Development Corporation**  
*(In thousands of dollars)*

<b>STRATEGIC &amp; PERFORMANCE GOALS BY PROGRAM ACTIVITIES</b>	<b>FY 2009 ACTUAL</b>	<b>FY 2010 ENACTED</b>	<b>FY 2011 REQUEST</b>
<b>1. GLOBAL CONNECTIVITY</b>			
A. <u>More Efficient Movement of Cargo</u>			
(1) Percent of days in the shipping season that the U.S. portion of the St. Lawrence Seaway is available	\$33,402	\$32,819	\$32,899
Performance Goal Subtotal:	\$33,402	\$32,819	\$32,899
<b>Total - Global Connectivity Strategic Goal:</b>	<b>\$33,402</b>	<b>\$32,819</b>	<b>\$32,899</b>
<b>2. SECURITY</b>			
A. <u>Preparedness</u>			
(1) Percent of DOT personnel with emergency management responsibilities participating in exercises ( <i>draft measure</i> )	\$280	\$285	\$285
Performance Goal Subtotal:	\$280	\$285	\$285
<b>Total - Security Strategic Goal:</b>	<b>\$280</b>	<b>\$285</b>	<b>\$285</b>
<b>3. ORGANIZATIONAL EXCELLENCE</b>			
A. <u>Advance the agency's ability to manage for results</u>			
(1) Achieve financial performance goals, including unqualified annual audit report	\$60	\$120	\$40
Performance Goal Subtotal:	\$60	\$120	\$40
<b>Total - Organizational Excellence Strategic Goal:</b>	<b>\$60</b>	<b>\$120</b>	<b>\$40</b>
<b>GRAND TOTAL (SLSDC Fund - 69x4089) <sup>1</sup>:</b>	<b><u>\$33,742</u></b>	<b><u>\$33,224</u></b>	<b><u>\$33,224</u></b>

<sup>1</sup> The SLSDC Fund (69x4089) for FY 2011 is proposed to include \$32,324,000 in an appropriation from the Harbor Maintenance Trust Fund (69-8003) and \$900,000 in estimated SLSDC non-federal revenues. Each year, the SLSDC, as a government corporation, generates non-federal income from such sources as interest on investments, rental payments, pleasure craft tolls, tug services, and duty free store revenues.

## EXHIBIT IV-2

### PERFORMANCE OVERVIEW 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 agency tracks the following DOT level performance measure to demonstrate program results:

Strategic Goal/Performance Goal: DOT's Global Connectivity strategic goal and SLSDC's Reliability and Availability strategic goal.

Measure: Percent of days in the shipping season that the U.S. portion of the St. Lawrence Seaway System is available.

<b>Increase the Efficiency of Freight Movement (<i>Seaway System Availability</i>)</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
Target:	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%
Actual:	99.0%	99.4%	98.8%	99.4%	---	---

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.

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Strategic Goal/Performance Goal: SLSDC's efficiency measure and SLSDC's Management Accountability strategic goal.

Measure: Percentage of SLSDC administrative overhead expenses as a percentage of total operating expenses, excluding Asset Renewal Program (ARP) projects, depreciation, and imputed expenses

<b>Administrative Expenses</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
Target:	25%	25%	25%	25%	25%	25%
Actual:	25%	25%	25%	21%	---	---

Administrative expenses include executive management and administration of the Corporation includes legal, policy, civil rights, accounting, procurement, human resources, information technology, and related administrative support services.



# **Global Connectivity**

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**STRATEGIC AND ORGANIZATIONAL GOALS  
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION**

**GLOBAL CONNECTIVITY**

**Performance Overview**

**Recent Performance**

In FY 2009, the SLSDC met its core performance metric of availability on the U.S. portion of the St. Lawrence Seaway. In FY 2009, the SLSDC reported a 99.4 percent system availability rate, surpassing the annual target of 99.0 percent. The SLSDC's success in this core mission area is due primarily to efficient management and operations of the locks and vessel traffic control and capital asset renewal investment in aging lock parts and machinery.

**FY 2011 Request**

The SLSDC's Global Connectivity budget request for FY 2011 is \$32.9 million, which includes \$17.3 million for general agency operations and \$15.6 million to complete 19 of the Corporation's 20 overall proposed Asset Renewal Program (ARP) projects. Included in the agency operations budget is funding for 156 full-time equivalent (FTE) employees.

In FY 2011, the SLSDC anticipates the following key accomplishments related to Global Connectivity:

- (1) Operate and maintain 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 effective lock operations and waterway management.
- (2) Continue the SLSDC's ARP to address the various replacement and improvement needs for the two U.S. Seaway locks, the Seaway International Bridge, operational systems, and Corporation facilities and equipment.

## EXHIBIT IV-3A

### PERFORMANCE PLANNING LOGIC MODEL SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION DOT STRATEGIC GOAL – GLOBAL CONNECTIVITY

Program Name	Purpose and Customers/Beneficiaries	2011 Inputs		2011 Activity
		\$ in 000s	FTE	
<b>Agency Operations</b>	<p>To operate and maintain the U.S. portion of the St. Lawrence Seaway, including the two U.S. Seaway locks in Massena, N.Y.</p> <p>Customers/beneficiaries include:            (1) domestic and international commercial users of the St. Lawrence Seaway, including carriers, shippers, and agents;            (2) Great Lakes Seaway System U.S. and Canadian ports and terminal operators;            (3) agricultural and manufacturing industries; and (4) labor force employed by maritime activity on the waterway system.</p>	\$17,299	156	<p>Perform core mission of operating and maintaining the U.S. portion of the St. Lawrence Seaway, which includes lock operations and maintenance, vessel traffic control, vessel safety and environmental inspections, and trade development.</p>
<b>Asset Renewal Program</b>	<p>To rehabilitate the Seaway's 50-year-old infrastructure, which includes conducting maintenance dredging, investing in new technologies, purchasing new equipment, and refurbishing old facilities.</p> <p>Customers/beneficiaries include those listed above under "Agency Operations" as the ARP will ensure the long-term structural integrity and reliability of the St. Lawrence Seaway's infrastructure assets. In addition, the ARP will provide direct, indirect, and induced benefits to the local and regional economies.</p>	\$15,600	—	<p>Fund 19 ARP projects related to Global Connectivity, 15 of which are multi-year projects that were funded in FY 2009 and/or requested in FY 2010.</p> <p>Major ARP projects proposed for funding in FY 2011 include hydraulic upgrades at the Seaway locks (\$4.5 million), rehabilitation of the downstream miter gate at Eisenhower Lock (\$4.3 million), and the completion of a three-year structural rehabilitation project at the Seaway International Bridge (\$3.5 million).</p> <p>Provide administrative and technical management and oversight of all on-going ARP projects.</p>

**EXHIBIT IV-3A (cont'd)**

**PERFORMANCE PLANNING LOGIC MODEL  
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION  
DOT STRATEGIC GOAL – GLOBAL CONNECTIVITY**

<b>2011 Achievements</b>	<b>Outputs – 2011 and Beyond</b>	<b>Outcomes – 2011 and Beyond</b>	<b>Contribution to DOT Goal</b>
<p>Provide a safe, reliable, efficient, and environmentally responsible deep-draft waterway.</p> <p>Perform binational trade development activities to increase Seaway trade.</p>	<p>Inspections of 100 percent of ocean vessels during their first Seaway inbound transit.</p>	<p>Ensure the reliability and availability of the U.S. portion of the Seaway at 99 percent or better.</p>	<p>Global Connectivity – Efficient Movement of Cargo: Percent of days in the shipping season that the U.S. portion of the St. Lawrence Seaway is available.</p>
<p>Complete the engineering specifications/plans, permitting and environmental studies (if applicable), and contractual obligations for all 19 Global Connectivity-related ARP projects proposed for funding in FY 2011.</p>	<p>By the end of FY 2011, the SLSDC will have completed all 21 ARP projects obligated in FY 2009, including the rehabilitation of the upstream miter gate at Eisenhower Lock and the lock culvert valve machinery upgrade to hydraulic operation at Eisenhower Lock.</p>	<p>Reduce the risk of delays to commercial navigation caused by lock equipment malfunctions.</p> <p>Implement new and improved technologies in the operation of the Seaway infrastructure to minimize maintenance needs and improve transit times.</p>	<p>Global Connectivity – Efficient Movement of Cargo: Percent of days in the shipping season that the U.S. portion of the St. Lawrence Seaway is available.</p>

## **PROGRAM REVIEW FOR GLOBAL CONNECTIVITY**

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### **AGENCY OPERATIONS**

#### **Program Purpose and Customers/Beneficiaries**

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 goal and 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 Seaway System, which contributes to the comprehensive economic and environmental development of the entire Great Lakes region.

Approximately 40-50 million metric tons of cargo is transported on the St. Lawrence Seaway annually to and from more than 50 nations. Principal commodities include grain, iron ore, coal, steel, and project cargoes. The St. Lawrence Seaway directly serves an eight-state, two-province region that accounts for 29 percent of the U.S. gross domestic product (GDP), 55 percent of North America's manufacturing and services industries, and is home to one-quarter of the continent's population. In fact, maritime commerce on the Great Lakes Seaway System impacts 150,000 U.S. jobs, \$12 million per day in wages, \$9 million per day in business revenues, and provides approximately \$3.6 billion in annual transportation cost savings compared to the next least expensive mode of transportation. Since it opened in 1959, the St. Lawrence Seaway has handled more than 2.5 billion metric tons of cargo valued in excess of \$375 billion.

#### **2010 Program Anticipated Results**

The FY 2010 enacted level of \$16.9 million for Global Connectivity/Agency Operations will allow the SLSDC to:

- (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 effective lock operations and 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. The two agencies will continue to work cooperatively on the vessel inspection procedures of foreign-flagged vessels, research and development of lockage and transit-related technologies; invasive species activities affecting the Great Lakes Seaway System; and binational trade development initiatives.
- (3) 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.

## **2011 Program Inputs**

The SLSDC's FY 2011 request of \$17.3 million for Global Connectivity/Agency Operations includes all SLSDC operational expenses (except for security and financial management-related costs), and funds 156 of the SLSDC's 157 full-time equivalent (FTE) employees (the other FTE is under the Security goal). The FY 2011 program request is \$617,000 above the FY 2010 enacted level, funding \$629,000 in baseline cost increases associated with pay raises, Working Capital Fund and GSA rent, and non-pay inflation. A reduction of \$12,000 in agency travel and supplies is proposed to increase ARP funding.

Approximately 80 percent of this program budget funds employee salaries and benefits. The remaining 20 percent of funds are used for operations and non-capital maintenance of the Seaway locks and facilities, vessel traffic control, equipment, supplies, vessel safety and environmental inspections, staff travel and training, and marketing activities.

## **2011 Program Activities**

During the navigation season (typically late March to late December), the SLSDC provides 24-hour vessel traffic control and oversight for its portions of the binational waterway. The Corporation will continue to listen to its customers through industry meetings and surveys to find new ways to further improve the operations and management of the Seaway System.

The SLSDC will also continue to strengthen existing trading partner relations and develop new markets through its trade development initiatives, in an effort to increase Seaway commerce. The Seaway is positioned for significant growth in new business as the waterway has become a viable alternative for shippers looking to avoid highway and railway congestion. In 2009, 1.6 million metric tons of new cargo transited the system, including windmill parts and biofuels, due to binational efforts to market the waterway and reduce user costs. In FY 2011, the SLSDC will continue to identify niche commodities and new markets to further increase Seaway trade.

The SLSDC, Canadian SLSMC, and other U.S. and Canadian federal partners, continue to make notable progress in ballast water management and efforts to prevent any new introductions of aquatic invasive species (AIS) via commercial vessels entering Seaway waters. In 2008, the SLSDC implemented regulations 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 the other U.S. and Canadian partners, have enforced ballast water inspections of all vessels to ensure the regulations are carried out. In 2009, 100 percent of cargo vessels bound for Great Lakes Seaway System ports received a ballast water or ballast tank exam. Ships that failed to properly manage their ballast tanks were 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. As of January 2010, the Great Lakes Aquatic Nonindigenous Species Information System (GLANSIS), maintained by the National Oceanic and Atmospheric Administration (NOAA), documents that the last time a new non-native species was determined to have been established in the Great Lakes was 2006.

## **2011 Program Anticipated Achievements**

Through its waterway management and lock operations program, the SLSDC will continue to provide commercial users with a safe, efficient, and environmentally friendly transportation route for the moving of goods to and from the Heartland of North America.

## **2011 Program Outputs**

In FY 2011, SLSDC will continue to perform inspections of all commercial ocean vessels in Montreal, Quebec, during their first inbound transit each year for safety and environmental compliance to ensure the safety of transiting vessels and the Seaway locks as well as the protection of U.S. and Canadian waters from invasive species. Annually, SLSDC marine inspectors complete more than 200 inspections. The SLSDC maintains an internal performance metric of inspecting 100 percent of foreign-flag vessels each year and it has met the goal each year since the program began in 1997.

## **2011 Program Outcomes**

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 navigation season.

During FY 2009, the SLSDC reported a 99.4 percent system availability, surpassing the annual target of 99.0 percent. The SLSDC's success in this core mission area is due primarily to efficient management and operations of the locks and vessel traffic control and capital asset renewal investment in aging lock parts and machinery. This program has sole responsibility for the achievement of this outcome.

## **Program Contribution to DOT Goal**

SLSDC activities associated with Global Connectivity/Agency Operations directly support its core performance measure of system availability and the Department's Global Connectivity measure related to the efficient movement of cargo. This goal measures the percent of days in the shipping season that the U.S. portion of the St. Lawrence Seaway is available.

## **ASSET RENEWAL PROGRAM**

### **Program Purpose and Customers/Beneficiaries**

With the enactment of the FY 2009 Omnibus Appropriations Act, the SLSDC's multi-year Asset Renewal Program (ARP) was initiated. Over the next decade, the ARP will focus on improving aging Seaway infrastructure, conducting maintenance dredging, investing in new technologies, purchasing new equipment, and refurbishing old facilities. The program marks the first time in the Seaway's history that a coordinated effort to repair and modernize the U.S. Seaway infrastructure has taken place.



The Canadian Seaway locks along the St. Lawrence River are identical in age and design to those owned by the U.S. SLSDC. Several years ago, the Canadian government began addressing its need for capital reinvestment in its Seaway assets. 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.

The goal of the Seaway's ARP is to ensure the long-term structural integrity of the Seaway infrastructure. In modernizing the Seaway's physical assets, the ARP will help ensure the reliability and availability of the waterway, thus providing direct, indirect, and induced benefits to the commercial users of the system.

In FY 2009, the SLSDC obligated \$17.6 million for 21 Year One ARP projects. These projects included: maintenance dredging in the U.S. portion of the navigation channel (\$4.3 million); lock culvert valve machinery upgrade to hydraulic operation (\$4.1 million); structural rehabilitation and corrosion prevention work on the Seaway International Bridge (\$3.1 million), which the SLSDC co-owns with the Federal Bridge Corporation of Canada; and upstream miter gate rehabilitation at Eisenhower Lock (\$2.2 million), as well as various other structural and equipment repairs and/or replacement.

### **2010 Program Anticipated Results**

The FY 2010 enacted level of \$16.3 million for Global Connectivity/ARP will allow the SLSDC to fund 20 capital and maintenance infrastructure projects including in Year Two of the plan. Major ARP projects to be funded in FY 2010 include the continued structural rehabilitation and corrosion prevention of the Seaway International Bridge (\$5.8 million), major concrete rehabilitation at Eisenhower Lock (\$2 million), rehabilitation of the upstream miter gate at Snell Lock (\$2.5 million), paving and drainage improvements at Corporation facilities (\$1.5 million), and improvements to the compressed air systems at both locks to control ice in and around the locks during the opening and closing of the navigation seasons (\$1.5 million).

The SLSDC expects to obligate the \$16.3 million enacted for ARP projects in FY 2010 prior to September 30, 2010. Major ARP lock projects obligated in FY 2010, including culvert valve and miter gate upgrades, will be completed following the 2011 and/or 2012 navigation seasons due to long lead times for ordering parts and equipment.

### **2011 Program Inputs**

For FY 2011, the SLSDC is proposing to fund 19 Global Connectivity capital and maintenance infrastructure projects in Year Three of the ARP at a cost of \$15.6 million. These 19 projects, 15 of which are multi-year projects that were funded in FY 2009 and/or enacted in FY 2010, will address various needs for the two U.S. Seaway locks, the Seaway International Bridge, operational systems and networks, and Corporation facilities and equipment.

Major ARP projects scheduled for funding in FY 2011 include hydraulic upgrades at the Seaway locks (\$4.5 million), rehabilitation of the downstream miter gate at Eisenhower Lock (\$4.3 million), and the completion of a three-year structural rehabilitation project at the Seaway International Bridge (\$3.5 million).

## **2011 Program Activities**

In FY 2011, the SLSDC will obligate funds for 19 proposed Global Connectivity/ARP projects (the only non-Global Connectivity ARP project is Project No. 51 (HSPD-12 upgrades)). ARP project descriptions and cost estimates can be found on pages 34-38. In addition, the SLSDC expects to complete all FY 2009 funded ARP projects by the end of the first half of FY 2011.

## **2011 Program Anticipated Achievements**

The SLSDC's Office of Engineering and Maintenance will complete the engineering specifications and plans, permitting and environmental studies (if applicable), and contractual obligations for all 19 Global Connectivity-related ARP projects proposed for funding in FY 2011. The Corporation's Office of Finance also directly supports this initiative.

## **2011 Program Outputs**

In the first half of FY 2011, the SLSDC will complete some of the larger lock-related ARP projects funded in FY 2009. This timeframe is due to the 10-12 month lead time for delivery and the need to install this machinery during the non-navigation winter months when the Seaway is closed. These projects include the hydraulic upgrade of culvert valve machinery (ARP Project No. 4) and the rehabilitation of an upstream miter gate (ARP Project No. 31). The SLSDC also expects to complete those FY 2010 ARP projects that do not require the long lead-times for delivery and installation.

## **2011 Program Outcomes**

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.

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.

## **Program Contribution to DOT Goal**

SLSDC activities associated with Global Connectivity/ARP directly support its core performance measure of system availability and the Department's Global Connectivity measure related to the efficient movement of cargo. This goal measures the percent of days in the shipping season that the U.S. portion of the St. Lawrence Seaway is available.

# **Security, Preparedness and Response**

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# **STRATEGIC AND ORGANIZATIONAL GOALS SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION**

## **SECURITY, PREPAREDNESS AND RESPONSE**

### **Performance Overview**

#### **Recent Performance**

The SLSDC's security program represents a critical component to ensuring that the binational St. Lawrence Seaway continues to operate efficiently while remaining open for commerce. A shutdown, due to a security-related event or any type of lock malfunction or failure, to any one of the Seaway's 15 U.S. and Canadian locks between Montreal and Lake Erie would stop operations through the St. Lawrence Seaway System and severely disrupt international traffic throughout the entire Great Lakes. The Great Lakes Seaway System serves as a critical transportation link to and from the agricultural and industrial heartland of North America. The economic impact of a Seaway shutdown would be detrimental to the waterway's core customer base and harm the binational waterway's reputation as a safe and reliable transportation route.

Following the September 11, 2001 terrorist attacks, the SLSDC immediately increased its level of security along its portion of the St. Lawrence Seaway and coordinated its activities with various law enforcement and security-related agencies. The SLSDC already maintained close relationships with Federal, state, local, and Canadian agencies involved in law enforcement and emergency issues. Those relationships have become closer and additional ties have been formed with the Transportation Security Administration and the Department of Homeland Security.

#### **FY 2011 Request**

The SLSDC's Security, Preparedness and Response budget request for FY 2011 is \$285,000 to continue its security program to ensure that SLSDC workplace assets, including the two U.S. Seaway locks, and its employees are protected. The FY 2011 request includes funding for one full-time equivalent (FTE) employee, seasonal security guards for the Eisenhower Lock Visitors' Center during the summer months, and \$100,000 to begin implementing the access control requirements in Homeland Security Presidential Directive (HSPD) 12 at the SLSDC's regional site in Massena, N.Y.

In FY 2011, the SLSDC anticipates the following key accomplishments related to Security, Preparedness and Response:

- (1) Continue to perform its security-related activities, including participating on various security working groups, coordinating security policies with U.S. and Canadian agencies, and ensuring that off-site COOP locations are in a "ready state" in the event of activation.
- (2) Improve its physical security systems and equipment, such as intrusion detection and electronic access control systems, to include HSPD-12.

## EXHIBIT IV-3B

### PERFORMANCE PLANNING LOGIC MODEL SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION DOT STRATEGIC GOAL – SECURITY, PREPAREDNESS AND RESPONSE

Program Name	Purpose and Customers/Beneficiaries	2011 Inputs		2011 Activity
		\$ in 000s	FTE	
<b>Agency Operations</b>	<p>To secure the U.S. infrastructure assets of the St. Lawrence Seaway and to respond quickly and effectively to any emergency situations affecting U.S. Seaway operations and/or navigation.</p> <p>Customers/beneficiaries include:  (1) SLSDC employees;  (2) Great Lakes Seaway System commercial users, including carriers, shippers, and agents; and  (3) general public.</p>	\$185	1	<p>Perform regular security duties related to the protection of the U.S. Seaway infrastructure.</p> <p>Participate in at least one annual emergency response tabletop exercise and/or simulation at the Federal, state, or local level.</p>
<b>Asset Renewal Program</b>	<p>To begin implementing Homeland Security Presidential Directive (HSPD) 12 at the SLSDC's Massena, N.Y. sites, related to access controls of facilities and computer systems.</p> <p>Customers/beneficiaries include SLSDC employees.</p>	\$100	—	Implement start of HSPD-12 functionality for SLSDC facilities and systems.

**EXHIBIT IV-3B (cont'd)**

**PERFORMANCE PLANNING LOGIC MODEL  
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION  
DOT STRATEGIC GOAL – SECURITY, PREPAREDNESS AND RESPONSE**

<b>2011 Achievements</b>	<b>Outputs – 2011 and Beyond</b>	<b>Outcomes – 2011 and Beyond</b>	<b>Contribution to DOT Goal</b>
Provide a secure waterway system for global commercial users, as well secure facilities for employees and the general public (Eisenhower Lock Visitors' Center).	<p>Train 100% of current and new employees on responding to various emergency and/or terrorist-related incidents, including pandemic events, as well as IT security awareness.</p> <p>Train 100% of contractor security guards stationed at the Eisenhower Lock Visitors' Center during the summer months.</p> <p>Train 100% of SLSDC employees used for non-navigation season security work.</p>	Ensure that SLSDC facilities are secure and employees are prepared to respond to any emergency and/or terrorist-related incident.	Security, Preparedness and Response
Begin implementing logical and physical access controls at the SLSDC's Massena, N.Y. sites.	<p>Implement logical access controls on 100% of Common Operating Environment (COE) systems, as well as the SLSDC's internally facing systems, where feasible.</p> <p>Implement physical access controls on 100% of buildings, gates, and other entry points identified in previous security assessments by FY 2015.</p>	Ensure that SLSDC facilities and systems adhere to Federal and Departmental policies and practices.	Security, Preparedness and Response

## **PROGRAM REVIEW FOR SECURITY, PREPAREDNESS AND RESPONSE**

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### **AGENCY OPERATIONS**

#### **Program Purpose and Customers/Beneficiaries**

The SLSDC's security program represents a critical component to ensuring that the binational St. Lawrence Seaway continues to operate efficiently while remaining open for commerce. A shutdown, due to a security-related event or any type of lock malfunction or failure, to any one of the Seaway's 15 U.S. and Canadian locks between Montreal and Lake Erie would stop operations through the St. Lawrence Seaway System and severely disrupt international traffic throughout the entire Great Lakes. The Great Lakes Seaway System serves as a critical transportation link to and from the agricultural and industrial heartland of North America. The economic impact of a Seaway shutdown would be detrimental to the waterway's core customer base and harm the binational waterway's reputation as a safe and reliable transportation route.

#### **2010 Program Anticipated Results**

The FY 2010 enacted level of \$285,000 for Security/Agency Operations will allow the SLSDC to:

- (1) Continue to perform its security-related activities, including participating on various security working groups, coordinating security policies with U.S. and Canadian agencies, and ensuring that off-site COOP locations are in a "ready state" in the event of activation.
- (2) Provide temporary security guards at the Eisenhower Lock Visitors' Center during the summer months.

#### **2011 Program Inputs**

The SLSDC's FY 2011 request of \$185,000 for Security/Agency Operations includes funding for one FTE as well as for security guards for the Eisenhower Lock Visitors' Center during the summer months. The FY 2011 program request is \$100,000 below the FY 2010 enacted level due to the completion of two security-related capital projects and the shifting of HSPD-12 costs from Agency Operations to ARP.

#### **2011 Program Activities**

In FY 2011, the SLSDC will continue to perform its security-related activities, which includes working cooperatively with security and intelligence officials at both the Departments of Transportation and Homeland Security to ensure that the St. Lawrence Seaway infrastructure is protected to the maximum extent possible. The SLSDC's lock infrastructure has been recognized as critical by the Department of Transportation. The SLSDC ensures the infrastructure's physical security, conducts vessel inspections on foreign flag vessels before they enter into U.S. waters, and employs GPS-based vessel tracking technologies to increase both efficiency and security while carrying out its responsibility of controlling vessel traffic over approximately 450 nautical



miles. The SLSDC will continue to be an active participant in federal, DOT, and New York State tests and exercises.

### **2011 Program Anticipated Achievements**

The SLSDC security program has been instrumental in the safe and secure operations of the St. Lawrence Seaway and the agency's facilities. During the summer months, the general public has direct access to the SLSDC's Eisenhower Lock Visitors' Center and the Corporation takes a serious approach to facility security. Contractor guards are trained annually and are on duty at the locks during operating hours. In addition, SLSDC lock operations crews are used for round-the-clock security detail during the non-navigation months of the year.

### **2011 Program Outputs**

In FY 2011, SLSDC staff will continue to be trained and tested on the agency's contingency measures in the event of a security, terrorist, or pandemic-related incident, IT security awareness, and physical security protocols. SLSDC staff will also continue to aggressively pursue the objectives of its security program, which includes greater protection of SLSDC facilities, improved measures for employee and visitor entry into facilities, and planned contingencies for facilities/infrastructure in the event of a heightened security alert. Finally, SLSDC staff will continue to work collaboratively with federal and state security and intelligence agencies as situations arise.

### **2011 Program Outcomes**

By providing a safe and secure transportation route for its commercial users, the SLSDC is improving the competitive state of the St. Lawrence Seaway as compared with other North American modes and routes. The economic impact of a Seaway shutdown would be detrimental to the waterway's core customer base and harm the binational waterway's reputation as a safe and reliable transportation route. In addition, SLSDC employees have greater workplace satisfaction knowing the facilities and infrastructure assets are secure.

### **Program Contribution to DOT Goal**

SLSDC security-related activities supplement the DOT Security, Preparedness and Response strategic goal and the DOT performance measure of preparedness for response to emergencies affecting the transportation sector currently under development.

## **ASSET RENEWAL PROGRAM**

### **Program Purpose and Customers/Beneficiaries**

The SLSDC's multi-year ARP will focus on improving aging Seaway infrastructure, conducting maintenance dredging, investing in new technologies, purchasing new equipment, and

refurbishing old facilities. The ARP marks the first time in the Seaway's history that a coordinated effort to repair and modernize the U.S. Seaway infrastructure has taken place.

### **2010 Program Anticipated Results**

There are no FY 2010 ARP projects planned under the Security/ARP goal.

### **2011 Program Inputs**

For FY 2011, the SLSDC is proposing to fund one Security/ARP capital project in Year Three of the ARP at a cost of \$100,000.

### **2011 Program Activities**

**ARP Project No. 51: Corporation Facilities – Upgrade Physical Security to Meet HSPD-12 Requirements (\$100,000)** – This project is for procuring the Personal Identity Verification (PIV) cards issued by the Department and for procuring and installing the necessary physical and logical card readers and other required infrastructure to meet HSPD-12 requirements.

### **2011 Program Anticipated Achievements**

The SLSDC's Office of Engineering and Maintenance will work with Departmental officials to begin implementing logical and physical access controls at the SLSDC's Massena, N.Y. sites. The SLSDC will work closely with the Department's Office of the Chief Information Officer (S-80) and Office of Security (M-40) to ensure HSPD-12 compliance.

### **2011 Program Outputs**

The SLSDC will implement logical access controls on 100 percent of its Common Operating Environment (COE) systems, as well as the SLSDC's internally facing systems (vessel traffic control system and financial management system), where feasible. In addition, the Corporation will implement physical access controls on 100 percent of buildings, gates, and other entry points identified in previous security assessments by FY 2015.

### **2011 Program Outcomes**

Through its on-going security program, as well as HSPD-12 logical and physical access control upgrades, the SLSDC will ensure that its facilities and systems adhere to Federal and Departmental policies and practices.

### **Program Contribution to DOT Goal**

SLSDC security-related activities supplement the DOT Security, Preparedness and Response strategic goal and the performance measure of preparedness for response to emergencies affecting the transportation sector currently under development.

# **Organizational Excellence**

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**STRATEGIC AND ORGANIZATIONAL GOALS  
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION**

**ORGANIZATIONAL EXCELLENCE**

**Performance Overview**

**Recent Performance**

In FY 2009, the SLSDC achieved numerous successes in the area of financial management. Related to annual financial audits, the SLSDC received an unqualified opinion of its financial statements for FY 2009 with no material weaknesses or reportable conditions in November 2009. The FY 2009 audit marked the 46<sup>th</sup> consecutive unqualified opinion or clean audit report for the Corporation.

The SLSDC also met its performance goals in all nine core OMB financial management areas and met its agency efficiency measure related to managing administrative expenses. During FY 2009, the SLSDC surpassed its annual 25 percent target for administrative expenses with a measure of 21 percent. This marked the best administrative efficiency performance the SLSDC has achieved since it began reporting this metric in the early 1990s.

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.

**FY 2011 Request**

The SLSDC's Organizational Excellence budget request for FY 2011 is \$40,000, which includes funding for its annual financial audit. No FTE employees are funded in the Organizational Excellence request.

## EXHIBIT IV-3C

### PERFORMANCE PLANNING LOGIC MODEL SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION DOT STRATEGIC GOAL – ORGANIZATIONAL EXCELLENCE

Program Name	Purpose and Customers/Beneficiaries	2011 Inputs		2011 Activity
		\$ in 000s	FTE	
Agency Operations	<p>To perform effective and efficient management of the SLSDC's financial procedures, practices, and system.</p> <p>Customers/beneficiaries include:  (1) SLSDC employees; and  (2) public agencies and private individuals and firms that engage in financial transactions with the SLSDC.</p>	\$40	—	<p>Perform regular duties related to budget formulation, budget execution, procurement, and other areas of financial management.</p> <p>Work with independent auditors before, during, and after annual financial audits.</p>

**EXHIBIT IV-3C (cont'd)**

**PERFORMANCE PLANNING LOGIC MODEL  
SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION  
DOT STRATEGIC GOAL – ORGANIZATIONAL EXCELLENCE**

<b>2011 Achievements</b>	<b>Outputs – 2011 and Beyond</b>	<b>Outcomes – 2011 and Beyond</b>	<b>Contribution to DOT Goal</b>
<p>Provide agency senior managers with timely budgetary and financial information to make informed planning and spending decisions.</p> <p>Adhere to all federal laws and regulations related to budgeting and financial management.</p>	<p>Prepare monthly variance reports of budgetary resources and expenditures by activity.</p> <p>Perform all required OMB and federal reporting of financial activities.</p> <p>Monitor and improve internal financial controls and business procedures, as needed.</p>	<p>Reduce the administrative overhead expense ratio of total operating costs to 25 percent or lower.</p> <p>Achieve an unqualified opinion (clean audit report) in the independent examination of financial statements.</p> <p>Meet performance goals in nine financial performance metrics related to fund balances with Treasury, suspense clearing greater than 60 days old, delinquent accounts receivable from the public over 180 days old, electronic payments, percent of non-credit card invoices paid on time, interest penalties paid, and travel and purchase card delinquencies.</p>	<p>Organizational Excellence – Financial Stewardship: Achieve financial performance goals, including unqualified annual audit.</p>

## **PROGRAM REVIEW FOR ORGANIZATIONAL EXCELLENCE**

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### **AGENCY OPERATIONS**

#### **Program Purpose and Customers/Beneficiaries**

The SLSDC performs effective and efficient management of its financial procedures, practices, and systems. Its financial management program directly benefits both SLSDC employees and public agencies and private individuals and firms that engage in financial transactions with the Corporation.

As a government corporation, the SLSDC manages an independent financial management system (FMS) for its accounting and reporting requirements. Additionally, the SLSDC implements effective internal control policies that have been vital to properly managing its financial resources and assets, reporting timely and accurate budget and expenditure data to agency officials, and maintaining an unqualified audit position.

#### **2010 Program Anticipated Results**

For FY 2010, the SLSDC requested \$120,000 to fund the operations and maintenance of its current FMS, the annual independent audit, and the start of an upgrade to its FMS.

#### **2011 Program Inputs**

For FY 2011, the SLSDC is requesting \$40,000 for the Organizational Excellence/Agency Operations program to fund its annual independent audit.

#### **2011 Program Activities**

The SLSDC will continue to perform its regular duties related to budget formulation, budget execution, procurement, and other areas of financial management. In addition, SLSDC officials will work with its independent auditors before, during, and after the annual financial audits.

#### **2011 Program Anticipated Achievements**

Throughout each year, Corporation financial officials provide agency senior managers with timely budgetary and financial information to make informed planning and spending decisions as well as adhere to all Federal laws and regulations related to budgeting and financial management.



## **2011 Program Outputs**

In addition to its work related to the annual financial audit, SLSDC financial management staff performs regular monitoring and monthly reporting of budget and expenditures by office division or as requested. In staff, they perform all required OMB and federal reporting of financial activities, and monitor and improve internal financial controls and business procedures, as needed.

## **2011 Program Outcomes**

The SLSDC measures its financial management activities against a number of internal and external performance goals. 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.

In addition, the SLSDC constantly works to reduce the ratio of administrative overhead expenses to total operating costs to 25 percent or lower. The SLSDC has taken a number of steps in recent years to reduce administrative costs and concentrate its funding priorities on asset renewal. During FY 2009, the SLSDC achieved its lowest percentage of administrative expenses as compared to its total operating expenses (21 percent) since it began reporting this metric in the early 1990s.

The SLSDC also measures its financial management performance against nine financial performance metrics established by OMB related to fund balances with Treasury, suspense clearing greater than 60 days old, delinquent accounts receivable from the public over 180 days old, electronic payments, percent of non-credit card invoices paid on time, interest penalties paid, and travel and purchase card delinquencies. For FY 2009, the SLSDC was fully successful in achieving all nine metrics.

## **Program Contribution to DOT Goal**

SLSDC financial management-related activities supplement the DOT Organizational Excellence strategic goal of fulfilling the measure related to achieving financial management excellence, including an unqualified annual audit.

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## EXHIBIT IV-4

### KEY PROGRAM REVIEWS, ASSESSMENTS, AND EVALUATIONS SAINT LAWRENCE SEAWAY DEVELOPMENT CORPORATION

#### A. Recent Reviews, Assessments, and Evaluations

Name/Title	Type	Result
Great Lakes St. Lawrence Seaway Study	Evaluation	Waterway is cost effective and generates economic benefits, but requires infrastructure renewal
International Standards Organization External Audit	Assessment	Recertification of agency's core operational business practices and procedures

Great Lakes St. Lawrence Seaway Study – The study, started in 2000 and completed in November 2007, 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. Seven Canadian and U.S. departments and agencies were involved in a multi-year study of this issue: Transport Canada, U.S. Department of Transportation, U.S. Army Corps of Engineers, Canadian St. Lawrence Seaway Management Corporation, SLSDC, Environment Canada, and the U.S. Fish and Wildlife Service. During its work on the study, the SLSDC measured its infrastructure assets using a Corps-based lock criticality index to better identify and prioritize maintenance and replacement needs. The results of the initial index were used to develop the SLSDC ARP.

International Standards Organization (ISO) External Audit – In June 2009, the SLSDC completed a recertification audit of its ISO 9001:2000 certified quality management system, conducted by Lloyds Register of Quality Assurance (LRQA), an independent accrediting agency. The SLSDC began the process of certifying its operational business processes in 1998 and has been audited by LRQA annually for compliance. 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. Maintaining the ISO certification has kept SLSDC officials focused on finding better ways of operating the waterway and recognizing how agency initiatives and decisions affect customers, both internally and externally.

#### B. On-Going/Planned Reviews, Assessments, and Evaluations

Name/Title	Type	Intended Result
Government Accountability Office (GAO) Review of the SLSDC's ARP	Assessment	Support of ARP and the cost estimation methods used to develop baseline
International Standards Organization External Audit	Assessment	Recertification of agency's core operational business practices and procedures

GAO Review of the SLSDC's ARP – In July 2009, the Government Accountability Office began work on a review of the SLSDC's Asset Renewal Program. GAO began this work in response to a congressional mandate contained in P.L. 111-8, Omnibus Appropriations Act, 2009.

GAO plans to assess three core areas of the ARP: (1) development and estimation of project costs; (2) thoroughness of the Plan in addressing all agency needs; and (3) asset renewal coordination with the Canadian Seaway entity. During its course of work in the summer/fall of 2009, the GAO contacted the SLSDC, Canadian SLSMC, and the U.S. Army Corps of Engineers. In addition, site visits to the Seaway's Massena, N.Y., facilities were completed. A final report is expected to be issued in spring 2010.

ISO External Audit – See description above. Next external audit by LRQA is scheduled for summer 2010.





# **U.S. St. Lawrence Seaway Asset Renewal Program Capital Investment Plan *FY 2011-2015***



**Saint Lawrence Seaway  
Development Corporation**



The U.S. Saint Lawrence Seaway Development Corporation (SLSDC), a wholly owned government corporation and an Operating Administration of 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 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 located in Massena, N.Y.

The SLSDC coordinates its activities with its Canadian counterpart, the St. Lawrence Seaway Management Corporation, to ensure that the U.S. portion of the St. Lawrence Seaway, including the two U.S. locks, are available for commercial transit 99 percent of the time during the navigation season (usually late March to late December of each year). 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>.







## **Saint Lawrence Seaway Development Corporation U.S. Seaway Asset Renewal Program Capital Investment Plan FY 2011-2015**

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### **Background/Summary**

In 2009, the U.S./Canadian binational St. Lawrence Seaway celebrated its 50<sup>th</sup> year of serving global commerce with a safe, secure, efficient, reliable, and cost competitive transportation route connecting the five Great Lakes to the world. Over those first 50 years, more than 2.5 billion metric tons of cargo has moved through the 15-lock waterway valued at more than \$375 billion. Additionally, maritime commerce on the Great Lakes Seaway System provides shippers provides approximately \$3.6 billion in annual transportation cost savings compared to the next least expensive mode of transportation.

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 29 percent of the U.S. gross domestic product (GDP), 60 percent of the Canadian GDP, 55 percent of North America's manufacturing and services industries, and is home to 110 million people or one quarter of the continent's population. In fact, maritime commerce on the Great Lakes Seaway System impacts 150,000 jobs, \$12 million per day in wages, and \$9 million per day in business revenues by firms engaged in trade in the U.S. alone.

To continue providing these economic benefits to both nations as well as serving as a viable option to help mitigate highway and rail congestion in the region, the binational St. Lawrence Seaway must remain available, efficient, and competitive for commercial transportation. To achieve these goals, the Seaway's infrastructure, which is approaching the end of its original "design" life, must be renewed through a large-scale capital reinvestment on both sides of the border.



**SLSDC's U.S. Eisenhower Lock in Massena, N.Y.**

Starting in 2009, the SLSDC initiated its multi-year U.S. Seaway Asset Renewal Program (ARP) for its navigation infrastructure and facilities. The ARP 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. None of these 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.

In FY 2009, the SLSDC obligated \$17.6 million for 21 Year One ARP projects. These projects included: maintenance dredging in the U.S. portion of the navigation channel (\$4.3 million); lock culvert valve machinery upgrade to hydraulic operation (\$4.1 million); structural rehabilitation and corrosion prevention work on the Seaway International Bridge (\$3.1 million); and upstream miter gate rehabilitation at Eisenhower Lock (\$2.2 million), as well as various other structural and equipment repairs and/or replacement.

For the FY 2010-2014 time frame, the Seaway ARP/CIP includes 41 projects and equipment estimated at \$97.2 million with total funding for each year of the plan constrained to funding targets for those years as estimated and approved by the Office of Management and Budget (OMB). It is also important to note that dollar amounts for ARP projects are “project feasibility” estimates and can vary by an industry-recognized 20-30 percent. Project estimates and schedules may fluctuate at various points in the lifespan of the ARP and will be revised as needed.

Original 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 for similar work it completed at other U.S. locks, (3) consultation with the SLSMC for similar work it completed at the Canadian Seaway locks, and (4) utilization of data from RSMeans, which serves as North America's leading supplier of construction cost information. In several cases, estimates for FYs 2011-2015 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 will be completed by contractors, the SLSDC will utilize its own workforce for several of the maintenance-related projects as well as for completing much of the pre-contract work, including preparation of designs, specifications, and drawings.

As part of its policy priority of “System Reliability and Availability”, the SLSDC developed its ARP to address the long-term asset renewal needs of the U.S. Seaway infrastructure. A perpetual infrastructure asset, such as a lock, needs a capital investment equivalent to its original cost over its design life, which is typically 50 years, in order to sustain itself. The U.S. portion of the St. Lawrence Seaway was built in the late 1950s at an original cost of \$130 million. Prior to the start of the ARP in FY 2009, only \$47 million in capital expenditures had been invested in the U.S. Seaway locks since they opened in 1959.

Without sufficient investment in the SLSDC’s perpetual assets, the future availability and reliability of the U.S. section of the St. Lawrence Seaway would be in jeopardy. The Seaway has enjoyed a 99 percent reliability rate over its history, but similar results in the future are uncertain with an aging infrastructure quickly approaching the end of its original design life. Adequate capital reinvestment in the Seaway infrastructure is critical to maintaining its exceptional reliability record.

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 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.

The Seaway 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 Corps-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 (*see page 18*).

Over the past decade, the Canadian government has started 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). Many of the lock-related ARP improvements will parallel activities underway at the Canadian Seaway locks.

### **Seaway ARP Internal Working Group**

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 on-going projects and to collectively discuss ways to improve the overall management, execution, and reporting of the program.

### **Indefinite Delivery Contracts**

The SLSDC's Procurement Division, in working with the agency's engineering team, recognized the need to be able to award ARP-related support contracts quickly without the time constraints of traditional federal contracts.

To that end, the SLSDC awarded indefinite delivery contracts in FY 2009 to three architectural/engineering (A/E) firms to support the ARP on project plans, specifications, and drawings. As support work is needed, the SLSDC will request proposals from the three firms in a streamlined process, with negotiations, if required, limited to only those firms. The policies and procedures for awarding indefinite delivery contracts are contained in Federal Acquisition Regulation (FAR), Subpart 16.5.

### **GAO Review**

In July 2009, the SLSDC was notified by the Government Accountability Office (GAO) that its Physical Infrastructure Branch would be conducting a review of the ARP. The review is in response to a congressional mandate contained in P.L. 111-8, Omnibus Appropriations Act, 2009.

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

Since the start of the review, the SLSDC has responded to numerous requests for information; participated in meetings, conference calls, and interviews; and hosted a GAO team at its operational facilities in Massena, N.Y., for a site visit and file review. A final report is expected to be issued in the spring of 2010.

### **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 goals of "Global Connectivity" and "Security, Preparedness and Response".

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.

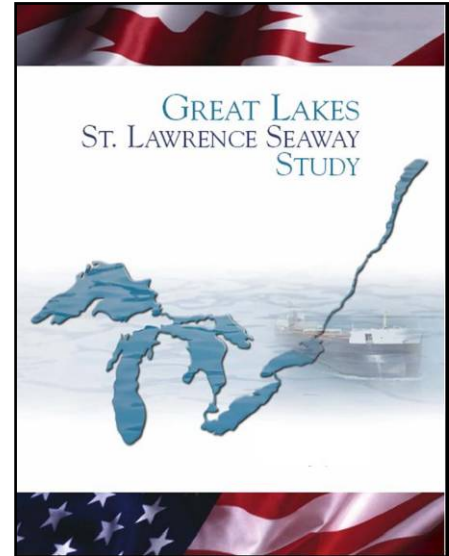
During FY 2009, the availability of the U.S. sectors of the Seaway, including the two U.S. locks maintained and operated by the SLSDC, was 99.4 percent. The primary causes for delays were weather and vessel incidents. Of the remaining factors that cause system non-availability, the SLSDC has the most control over the proper functioning of its lock equipment. During FY 2009, lock-related delays to commercial shipping totaled 5 hours, 16 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 is in jeopardy. Although the Seaway has enjoyed a 99 percent reliability rate over its history, similar results in the future are uncertain with an aging infrastructure that has not been adequately renewed.

## ***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 locks of the St. Lawrence Seaway as well as the Soo locks operated and maintained by the U.S. Army Corps of Engineers.

The U.S. Department of Transportation has been partnering with the Corps on this project for the last seven years and Transport Canada for the last five years. The Study report consists of eight chapters totaling over 100 pages as well as lengthy appendices. The Study is available to the public electronically on the Study's website ([www.glsls-study.com](http://www.glsls-study.com)).



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 analysis 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 serving 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 serving the System, including evolving intermodal linkages and transportation technologies. 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. The waterway offers shippers significant savings: surveys suggest that the System saves shippers \$2.7 billion a year in transportation costs. 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 will require capital investment in order for the System to remain reliable and competitive.

The Study provided specific considerations and conclusions:

- 1) 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.
- 2) 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.
- 3) 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.
- 4) 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.

**SLSDC U.S. SEAWAY ASSET RENEWAL PROGRAM  
CAPITAL INVESTMENT PLAN  
FYs 2011-2015**

**SUMMARY OF CAPITAL AND MAINTENANCE PROJECTS  
TOTALING \$97,205,000**

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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.

It is also important to note that 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 funding targets for those years as estimated and 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. The majority of the projects listed below have additional anticipated costs beyond FY 2015.

**Project No. 1: Snell Lock – Replace Fendering Downstream Guidewall Extension (Capital Project) (FY 2011 – \$10,000)** – Funding in FY 2011 will provide for the installation of the fendering purchased with ARP funds in FY 2009. *(Project funds obligated in FY 2009)*

**Project No. 2: Both Locks – Rehabilitate Downstream Miter Gates (Non-Capital Maintenance Project) (FYs 2011 and 2012 – \$8,630,000)** – This project is to completely rehabilitate the miter gate at the downstream end of both Eisenhower and Snell Locks. It includes replacing worn and/or damaged components including the miter and quoin contact blocks, pintles, and diagonals to insure proper functioning of the miter gates. The FY 2011 estimate exceeds original baseline estimates due to actual costs associated with rehabilitating the upstream miter gates in FYs 2009 and 2010.

**Project No. 4: Both Locks – Culvert Valve Machinery – Upgrade to Hydraulic Operation (Capital Project) (FY 2011 – \$4,500,000)** – This project is for replacing the operating machinery for the Eisenhower and Snell Lock culvert valves, which are utilized for filling and emptying the locks. This machinery is more than 50 years old and the open gearing is exhibiting macropitting. This equipment needs to be upgraded to insure its continued reliability. Failure of this equipment will cause delays to shipping while repairs are made. Due to the fact that this



machinery was custom made and spare parts are limited, repairs to multiple pieces of machinery using the spare parts that are on-hand would not be possible. The upgrade will include new hydraulic operating machinery to match the upgrades made at the Canadian Seaway locks and other similar locks in the United States. The FY 2011 estimate exceeds original baseline estimates due to actual costs for the project in FY 2009. *(Project funds obligated in FY 2009)*

**Project No. 5: Both Locks – Rehabilitate and Insulate Winter Maintenance Lock Covers (Capital Project) (FY 2012 – \$258,000)** – This project is for rehabilitating and insulating the roof cover modules utilized to cover Eisenhower and Snell Locks when major winter maintenance projects are planned. These covers are over 40 years old and insulating them would save on funds used to heat work areas when required for such temperature sensitive projects as placing concrete and painting steel structures. *(Project funds obligated in FY 2009)*



**Project No. 6: Seaway International Bridge – Perform Structural Rehabilitation and Corrosion Prevention (Non-Capital Maintenance Project) (FY 2011 – \$3,446,000)** – This project is for rehabilitation of the structural components of the south span of the bridge between Roosevelttown, N.Y., and Cornwall Island, which crosses the Seaway navigation channel. The bridge, which annually accommodates more than 2.5 million vehicles, was opened to traffic in 1962 and is in need for significant rehabilitation. This project is

designed to stop the corrosion currently experienced on many portions of the bridge structure and prevent the need for large-scale structural or even bridge replacement in the future. The SLSDC owns 68 percent of the south span of the bridge and the budget request reflects the U.S. prorated amount for the project. The Canadian Federal Bridge Corporation owns the remaining 32 percent of the south span. *(Project funds obligated in FY 2009 and enacted for FY 2010)*

**Project No. 7: Both Locks – Culvert Valves – Replace with Single Skin Valves (Capital Project) (FYs 2011, 2012, and 2013 – \$911,000)** – This project is for replacing the double skin culvert valves utilized for filling and emptying the locks with single skin valves. Cracking of major structural members has occurred and with the double skin construction, the structural members are not accessible for inspection, blast cleaning and painting. The culvert valves are more than 50 years old and are corroding from the inside. The new single skin valves will provide access to the structural members for inspection and maintenance. The failure of a culvert





valve would cause a delay to shipping while the damaged valve was removed and replaced. Dependant on the type of failure, other lock operating components/equipment could be damaged causing the lock to be out of service for a longer time. *(Project funds obligated in FY 2010)*



**Project No. 8: Floating Navigational Aids – Upgrade/Replace (Capital Project) (FYs 2011, 2012, 2013, 2014, and 2015 – \$307,000)** – 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 enacted for FY 2010)*

**Project No. 9: Corporation Equipment – Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment (Capital Equipment) (FYs 2011, 2012, 2013, 2014, and 2015 – \$1,123,000)** – This is an ongoing program to replace heavy and light equipment, vehicles and shop equipment as it becomes worn out and unserviceable. Heavy and light equipment includes such items as a crane, dump truck, snow plow, backhoe, grader, front end loader and shop equipment 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 and enacted for FY 2010)*

**Project No. 10: Both Locks – Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities (Non-Capital Maintenance Project) (FYs 2011, 2012, 2013, 2014, and 2015 – \$132,000)** – 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 nearly 50 years old. The loss of power from the Moses-Saunders Power Dam makes it necessary to utilize diesel generators, which are expensive to operate, to continue operation of Eisenhower and Snell Locks and the Maintenance Facility. *(Project funds obligated in FY 2009 and enacted for FY 2010)*

**Project No. 11: Fixed Navigational Aids – Rehabilitate (Non-Capital Maintenance Project) (FYs 2011, 2012, 2013, 2014, and 2015 – \$918,000)** – 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 done by divers and any repairs to the foundations will require divers and the use of a tug and barge with crane to complete. 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 enacted for FY 2010)*



**Project No. 12: Corporation Equipment – Upgrade/Replace Floating Plant (Capital Project) (FYs 2011, 2012, and 2014 – \$20,484,000)** – This is an ongoing program to rehabilitate and/or replace the Corporation's floating plant which is utilized for maintaining the locks and navigation channels. This multiyear project also includes replacing the tug; upgrading the buoy tender barge; purchasing a smaller tug which would be more efficient for many operations where the capabilities of the larger tug are not required, a small boat for emergency response and a

small scow for transporting dredged spoil from emergency/spot dredging; and for rehabilitating the crane barge/gatelifter which would have to be utilized if a miter gate was damaged and had to be replaced. *(Project funds obligated in FY 2009 and enacted for FY 2010)*

**Project No. 13: Corporation Facilities – Replace Roofs (Capital Project) (FYs 2011, 2012, 2013, 2014, and 2015 – \$1,660,000)** – 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. *(Project funds obligated in FY 2009)*

**Project No. 14: Corporation Facilities – Replace Paving and Drainage Infrastructure (Capital Project) (FYs 2011, 2013, and 2015 – \$3,826,000)** – This project is for improving the pavement and drainage along lock approach walls, Corporation roadways and public parking and work areas at all Corporation facilities. In Upstate New York, the damage to pavements caused by winter conditions is significant and 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 and enacted for FY 2010)*

**Project No. 15: Eisenhower Lock Highway Tunnel – Rehabilitate (Non-Capital Maintenance Project) (FYs 2011, 2013, and 2015 – \$1,163,000)** – This is an ongoing project to maintain the highway tunnel which goes through the upper sill area of Eisenhower Lock to provide 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)*

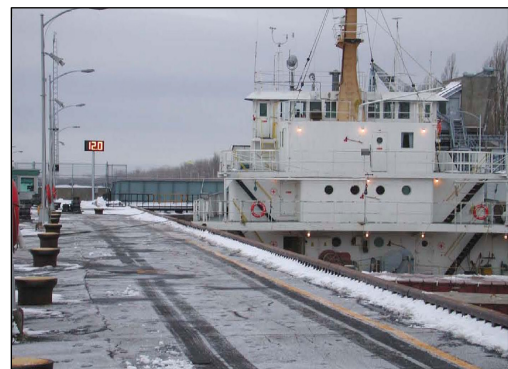
**Project No. 16: Seaway System – Upgrade GPS/AIS/TMS Technologies (Capital Project) (FYs 2011, 2013, and 2015 – \$255,000)** – This project is to expand the use of the Seaway’s Global Positioning System (GPS)/ Automatic Identification System (AIS) navigation technologies, which are incorporated into 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)*

**Project No. 17: Navigation Channels – Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments (Non-Capital Maintenance Project) (FY 2015 – \$5,152,000)** – This project is for dredging of the navigation channel to remove sediments 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 contractor began dredging the intermediate pool in early October 2009 and expected to complete the project between September 1 and December 31, 2010. For FY 2015, the Corporation will focus on various upriver sections of the St. Lawrence River under U.S. jurisdiction that require maintenance dredging. *(Project funds obligated in FY 2009)*

**Project No. 19: Corporation Facilities – Upgrade Electrical Distribution Equipment (Capital Project) (FYs 2011 and 2012 – \$650,000)** – This project is for upgrading electrical distribution equipment at both Eisenhower and Snell Locks and at the Maintenance Facility to insure continued reliability. The majority of this equipment is more than 50 years old. *(Project funds enacted for FY 2010)*

**Project No. 20: Both Locks – Upgrade Lock Status/Controls (Capital Project) (FY 2011 – \$75,000)** – This project is for upgrading the lock/equipment status systems and the lock operating controls at both Eisenhower and Snell Locks. At present only the most critical components are monitored and controlled by the new computerized system. Adding control of some of the less critical components and more in depth monitoring of the status of all components will improve the effectiveness of preventive maintenance activities and result in increased reliability. *(Project funds obligated in FY 2009 and enacted for FY 2010)*

**Project No. 22: Both Locks – Install Vessel Self Spotting Equipment (Capital Project) (FYs 2014 and 2015 – \$579,000)** – This project is for installing equipment at both Eisenhower and Snell Locks such that transiting vessels can spot/locate themselves in the lock. This new technology, once fully implemented, will reduce labor costs for locking vessels. The Canadian Seaway agency has been testing this new technology at their locks.





**Project No. 24: Both Locks – Structural Repair – Grout Leaks in Galleries and Recesses (Non-Capital Maintenance Project) (FY 2012 – \$203,000)** – This project is for grouting cracks/joints in the concrete in the galleries and recesses at both Eisenhower and Snell Locks to reduce the infiltration of water into these areas. Water leaking into these areas accelerates the corrosion of the components/ machinery and makes it difficult to perform maintenance on these items. *(Project funds obligated in FY 2009 and enacted for FY 2010)*

**Project No. 26: Corporation Facilities – Upgrade Storage for Lock Spare Parts (Capital Project) (FYs 2012 and 2014 – \$408,000)** – This project is for constructing shelters for storage of lock spare parts to prevent them from corroding prior to their use. Many of these items are not stored under cover and/or are stored in old storage sheds that are in need of repair or replacement. *(Project funds enacted for FY 2010)*

**Project No. 27: Corporation Facilities – Replace Windows and Doors and Repair Building Facades (Non-Capital Maintenance Project) (FYs 2012 and 2014 – \$408,000)** – 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 enacted for FY 2010)*

**Project No. 28: Snell Lock – Walls, Sills and Culverts – Rehabilitate Concrete (Non-Capital Maintenance Project) (FY 2013 – \$2,040,000)** – 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, filling and emptying culverts and the gate sills by replacing deteriorated/damaged concrete.



**Project No. 29: Eisenhower Lock – Walls, Sills and Culverts – Rehabilitate Concrete (Non-Capital Maintenance Project) (FYs 2012 and 2015 – \$4,091,000)** – 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. It is resurfacing the mass concrete that forms the locks walls, filling and

emptying culverts and the gate sills by replacing concrete to depths ranging between approximately 8 inches and 24 inches. *(Project funds enacted for FY 2010)*

**Project No. 32: Snug Harbor – Rehabilitate Spare Gate Storage and Assembly Area (Non-Capital Maintenance Project) (FYs 2011, 2012, and 2013 – \$762,000)** – This project is for rehabilitating the spare miter gate storage and assembly area at Snug Harbor. The work will include repair of the spare gate assembly pads and their supporting piles and blast cleaning and painting of the spare miter gates and gate assembly towers.

**Project No. 33: Both Locks – Upgrade Drainage Infrastructure in Galleries and Recesses (Capital Project) (FYs 2012, 2013, 2014, and 2015 – \$614,000)** – This project is to open existing drains or to drill new ones 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.

**Project No. 34: Both Locks – Improve Ice Control (Capital Project) (FYs 2011, 2012, 2013, 2014, and 2015 – \$1,021,000)** – 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 and 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 during times when there is ice in the water more efficient and would minimize damages to the lock components and transiting vessels.

**Project No. 35: Vessel Mooring Cells – Rehabilitate and Extend (Capital Project) (FYs 2011, 2013, and 2014 – \$2,145,000)** – 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.

**Project No. 36: Eisenhower Lock – Diffusers – Replace (Non-Capital Maintenance Project) (FY 2012 – \$3,045,000)** – This project is to replace deteriorated/damaged concrete in the diffusers at Eisenhower Lock. This includes concrete that was of poor quality when placed during original construction and 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.

**Project No. 37: 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 the cost of transporting vessels to a drydock typically located in the Great Lakes and the daily rate for having a vessel in that drydock.

**Project No. 38: Both Locks – Upgrade/Replace Emergency Generators (Capital Project) (FYs 2012 and 2013 – \$1,018,000)** – This project is for replacing the emergency generators at both Eisenhower and Snell Locks and for installing one of those removed from the locks at the Maintenance Facility. The generators at the locks are over 20 years old and will not carry the total load. It is sometimes necessary to eliminate some of the load to insure that the generators will run. Also, installing one of these units at the Maintenance Facility with an automatic transfer switch will insure that if the power goes out, water lines will not freeze and break and it will enable maintenance activities to continue.

**Project No. 39: Both Locks – Dewatering Pumps – Upgrade Outdated Equipment (Capital Project) (FYs 2012 and 2013 – \$407,000)** – This project is for replacing the pumps used for dewatering both Eisenhower and Snell Locks for maintenance of their underwater components. These pumps are nearly 50 years old and parts for these units are no longer available.

**Project No. 40: Both Locks – Extend Guidewalls in Pool (Capital Project) (FYs 2013 and 2015 – \$3,076,000)** – 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.

**Project No. 41: Snell Lock – Install Ice Flushing System Technologies (Capital Project) (FYs 2012 and 2013 – \$10,178,000)** – This project is for installation of an ice flushing system at Snell Lock similar to the one at Eisenhower Lock. An ice flushing system is utilized to remove floating ice from the lock chamber to make room for transiting vessels and to prevent/minimize damage to the vessels and/or lock structures. Without an ice flushing system, it is necessary to flush ice utilizing the filling valves which is less efficient and effective and significantly increases the stresses on these valves and causes damage to them.

**Project No. 42: Both Locks – Miter Gates – Structural Rehabilitation (Non-Capital Maintenance Project) (FYs 2012, 2013, 2014, and 2015 – \$2,554,000)** – This project is to blast clean and treat the upstream and downstream miter gates at both Eisenhower and Snell Locks to prevent further corrosion of these structures. They were last treated over 20 years ago.



**Project No. 43: Both Locks – Miter Gate Machinery – Upgrade/ Replace (Capital Project) (FYs 2013 and 2015 – \$3,281,000)** – This project is for replacing the operating machinery for the miter gates at both Eisenhower and Snell 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 upgrades made at the Canadian Seaway locks and the other locks in the United States.

**Project No. 44: 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 if a vessel had a malfunction such that it was unable to stop and struck a miter gate. This operating machinery is more than 50 years old and needs to be upgraded to insure its continued reliability.

**Project No. 45: Flow Control Dikes – Rehabilitate (Non-Capital Maintenance 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 from which these dikes were constructed are moved by the forces of the water and ice and work needs to be done to restore the dikes to their as-constructed condition.

**Project No. 46: Both Locks – Guidewall Extensions – Rehabilitate (Non-Capital Maintenance Project) (FY 2015 – \$515,000)** – 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 constructed after original construction of the locks to lengthen the approach walls 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 guidewalls which are mass concrete structures. They have been damaged by vessel impacts over the years and require rehabilitation to maintain their serviceability.

**Project No. 51: Corporation Facilities – Upgrade Physical Security to Meet HSPD-12 Requirements (Capital Project) (FY 2011 – \$200,000)** – This project is for procuring the Personal Identity Verification (PIV) cards issued by the Department and for procuring and installing the necessary ID smart card readers and other required infrastructure to meet HSPD-12 requirements.

**Project No. 52: Eisenhower Lock Visitors' Center – Replace (Capital Project) (FY 2013 – \$5,000,000)** – The Eisenhower Lock Visitors' Center is approaching 50 years of age and is in need of replacement. Each year, the facility is visited by more than 50,000 people annually and is an important attraction for Upstate New York tourism. The Center provides historical displays on the St. Lawrence Seaway and President Eisenhower and includes observation decks for tourists to watch vessels transit the lock. Due to more critical maintenance needs, only a minimal amount of maintenance has been performed over the years by the SLSDC on the facility. A new Visitors' Center is needed to meet federal physical security and handicap accessibility standards. Due to the condition of the facility, replacement would be a more cost effective solution than remodeling.

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U.S. Seaway Asset Renewal Program Capital Investment Plan FY 2011-2015										
Project No.	Project Title	Type of Project (1)	Mission Objective (2)	Time Work Completed (3)	FY 2011 Request	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Five Year Total
1	Snell Lock - Replace Fendering Downstream Guidewall Extension	CP	L	Other	\$10,000					\$10,000
2	Both Locks - Rehabilitate Downstream Miter Gates	MP	L	Winter	\$4,250,000	\$4,380,000				\$8,630,000
4	Both Locks - Culvert Valve Machinery - Upgrade to Hydraulic Operation	CP	L	Winter	\$4,500,000					\$4,500,000
5	Both Locks - Rehabilitate and Insulate Winter Maintenance Lock Covers	CP	L	Other		\$258,000				\$258,000
6	Seaway International Bridge - Perform Structural Rehabilitation and Corrosion Prevention	MP	T/B	Other	\$3,466,000					\$3,466,000
7	Both Locks - Culvert Valves - Replace with Single Skin Valves	CP	L	Other	\$300,000	\$305,000	\$306,000			\$911,000
8	Floating Navigational Aids - Replace	CP	W	Other	\$61,000	\$61,000	\$61,000	\$62,000	\$62,000	\$307,000
9	Corporation Equipment - Replace Heavy and Light Equipment, Maintenance Vehicles and Shop Equipment	CE	L, W	Other	\$100,000	\$254,000	\$255,000	\$256,000	\$258,000	\$1,123,000
10	Both Locks - Upgrade Power Supply Infrastructure from Moses-Saunders Dam to Both Locks and Adjacent Facilities	MP	L	Other	\$50,000	\$20,000	\$20,000	\$21,000	\$21,000	\$132,000
11	Fixed Navigational Aids - Rehabilitate	MP	W	Other	\$100,000	\$203,000	\$204,000	\$205,000	\$206,000	\$918,000
12	Corporation Equipment - Upgrade/Replace Floating Plant	CP	L, W	Other	\$505,000	\$1,524,000		\$18,455,000		\$20,484,000
13	Corporation Facilities - Replace Roofs	CP	F	Other	\$130,000	\$230,000	\$300,000	\$500,000	\$500,000	\$1,660,000
14	Corporation Facilities - Replace Paving and Drainage Infrastructure	CP	L, F	Other	\$750,000		\$1,530,000		\$1,546,000	\$3,826,000
15	Eisenhower Lock - Highway Tunnel - Rehabilitate	MP	T/B	Other	\$650,000		\$255,000		\$258,000	\$1,163,000
16	Corporation Technologies - Upgrade GPS/AIS/TMS	CP	W	Other	\$50,000		\$102,000		\$103,000	\$255,000
17	Navigation Channels - Dredge U.S. Sectors to Maintain Design Grade and Dispose of Sediments	MP	W	Other					\$5,152,000	\$5,152,000
19	Corporation Facilities - Upgrade Electrical Distribution Equipment	CP	L, F	Other	\$150,000	\$500,000				\$650,000
20	Both Locks - Upgrade Lock Status/Controls	CP	L	Other	\$75,000					\$75,000
22	Both Locks - Install Vessel Self Spotting Equipment	CP	L	Other				\$288,000	\$291,000	\$579,000
24	Both Locks - Structural Repair - Grout Leaks in Galleries and Recesses	MP	L	Other		\$203,000				\$203,000
26	Corporation Facilities - Upgrade Storage for Lock Spare Parts	CP	L, F	Other		\$203,000		\$205,000		\$408,000
27	Corporation Facilities - Replace Windows and Doors and Repair Building Facades	MP	F	Other		\$203,000		\$205,000		\$408,000
28	Snell Lock - Walls, Sills and Culverts - Rehabilitate Concrete	MP	L	Winter			\$2,040,000			\$2,040,000
29	Eisenhower Lock - Walls, Sills and Culverts - Rehabilitate Concrete	MP	L	Winter		\$2,030,000			\$2,061,000	\$4,091,000
32	Snug Harbor - Rehabilitate Spare Gate Storage and Assembly Area	MP	L	Other	\$253,000	\$254,000	\$255,000			\$762,000



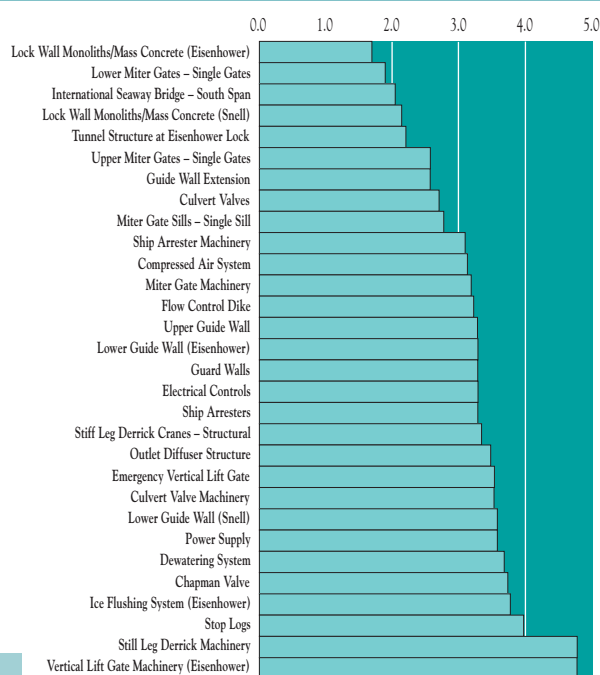
U.S. Seaway Asset Renewal Program Capital Investment Plan FY 2011-2015										
Project No.	Project Title	Type of Project (1)	Mission Objective (2)	Time Work Completed (3)	FY 2011 Request	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Five Year Total
33	Both Locks - Upgrade Drainage Infrastructure in Galleries and Recesses	CP	L	Other		\$152,000	\$153,000	\$154,000	\$155,000	\$614,000
34	Both Locks - Improve Ice Control	CP	L	Winter	\$100,000	\$228,000	\$230,000	\$231,000	\$232,000	\$1,021,000
35	Vessel Mooring Cells - Rehabilitate and Extend	CP	W	Other	\$100,000		\$1,020,000	\$1,025,000		\$2,145,000
36	Eisenhower Lock - Diffusers - Replace	MP	L	Winter		\$3,045,000				\$3,045,000
37	Eisenhower Lock - Construct Drydock for Vessel Maintenance	CP	L, W	Winter					\$800,000	\$800,000
38	Both Locks - Upgrade/Replace Emergency Generators	CP	L	Winter		\$508,000	\$510,000			\$1,018,000
39	Both Locks - Dewatering Pumps - Upgrade Outdated Equipment	CP	L	Other		\$203,000	\$204,000			\$407,000
40	Both Locks - Extend Guidewalls in Pool	CP	L	Other			\$1,530,000		\$1,546,000	\$3,076,000
41	Snell Lock - Install Ice Flushing System Technologies	CP	L	Winter		\$5,075,000	\$5,103,000			\$10,178,000
42	Both Locks - Miter Gates - Structural Rehabilitation	MP	L	Winter		\$761,000	\$765,000	\$513,000	\$515,000	\$2,554,000
43	Both Locks - Miter Gate Machinery - Upgrade/Replace	CP	L	Winter			\$1,632,000		\$1,649,000	\$3,281,000
44	Both Locks - Ship Arrestor Machinery - Upgrade/Replace	CP	L	Winter				\$410,000	\$415,000	\$825,000
45	Flow Control Dikes - Rehabilitate	MP	W	Other					\$515,000	\$515,000
46	Both Locks - Guidewall Extensions - Rehabilitate	MP	L	Other					\$515,000	\$515,000
51	Corporation Facilities -- Upgrade Physical Security to Meet HSPD-12 Requirements	CP	F	Other	\$100,000	\$50,000	\$50,000			\$200,000
52	Eisenhower Lock Visitors' Center - Replace	CP	F	Other			\$5,000,000			\$5,000,000
	<b>Total</b>				<b>\$15,700,000</b>	<b>\$20,650,000</b>	<b>\$21,525,000</b>	<b>\$22,530,000</b>	<b>\$16,800,000</b>	<b>\$97,205,000</b>
(1) CP=Capital Project; CE=Capital Equipment; MP=Non-Capital Maintenance Project (2) L=Lock Operation Upgrade and Maintenance; W=Waterway Management; T/B=Tunnel and Bridge Maintenance; F=Facility/Equipment Upgrade and Maintenance (3) Winter=During Non-Navigation Season; Other=Other Than Non-Navigation Season  Notes: (a) Estimates as of January 2010; (b) Dollar amounts for ARP projects are "project feasibility" estimates and can vary have an industry-recognized contingency of 20-30 percent; (c) FY 2009 Actuals include No. 99 in project totals. Amount shown is a "non-add" total.										

## MLO SECTION – U.S. COMPONENTS

The U.S. portion of the St. Lawrence Seaway consists of the Snell and Eisenhower Locks, which are virtually identical in design but which manifest significant differences in their condition. The Eisenhower Lock suffers from poor concrete quality, which has led to advanced concrete degradation of the lock walls and seepage around a road tunnel that provides access to the Moses-Saunders hydroelectric dam.

Mass concrete	While concrete at the Snell Lock is in relatively good shape, the concrete at the Eisenhower Lock has deteriorated significantly. Up to 1.2 m (4 ft) of concrete has to be removed to get to sound underlying concrete. The service tunnel through the lock sill has experienced cracking, leakage, and ice build-up in winter. Grouting has been used repeatedly but the problem continues to worsen.
Approach walls	The approach walls and guide walls at both the Snell and Eisenhower Locks have suffered considerable wear and tear from ship impacts. They maintain their integrity, though regular maintenance is required.
Gates	The upper miter gates are in good operating condition at both locks. The pintles, quoin blocks and miter blocks are subject to significant wear and are replaced on a 'fix-as-fails' basis. The lower gates at both Snell and Eisenhower show considerable cracking. Cracking in the Snell gates is about three times as extensive as in the Eisenhower gates and is a major cause for concern.
Stoplogs	The Snell and Eisenhower locks have complete sets of stoplogs for dewatering. They are installed using stiff-leg derrick cranes. The Eisenhower Lock also has an emergency vertical lift gate that protects the upstream pool level in the event of a catastrophic failure of the miter gates.
Ship arrestors	The ship arrestors at the Eisenhower and Snell Locks date from the original construction and are in need of modernization.

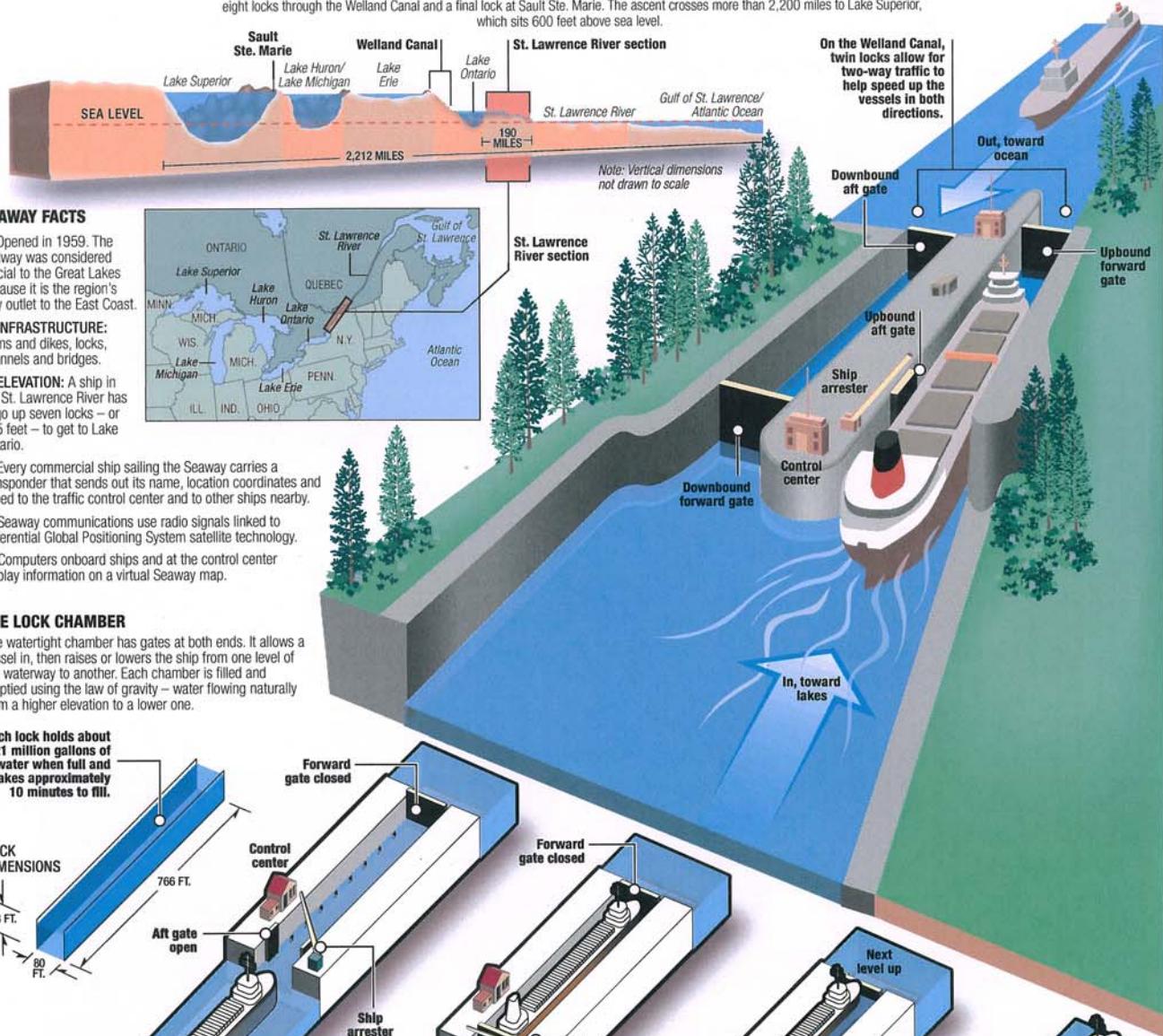
**Machinery & controls** Programmable logic controllers are used to control both the Snell and Eisenhower Locks. The latter houses the control room for SLSDC's new vessel tracking system, which monitors ship movements throughout the Seaway. The SLSDC will need new ship positioning, hydraulics and ship mooring technology to harmonize lock operations with the SLSMC.



At the SLSDC facilities on the St. Lawrence River, the most critical areas are associated with concrete quality at the Eisenhower Lock, the condition of the lower miter gates at both locks, the south span of the Seaway International Bridge, and the Eisenhower Lock highway tunnel.

## 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.
- 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.

Each lock holds about 21 million gallons of water when full and takes approximately 10 minutes to fill.

### LOCK DIMENSIONS

766 FT.  
28 FT.  
80 FT.

### 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>*

January 2010