

**STATEMENT OF  
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U.S. DEPARTMENT OF TRANSPORTATION**

**BEFORE THE  
SUBCOMMITTEE ON SURFACE TRANSPORTATION AND  
MERCHANT MARINE INFRASTRUCTURE, SAFETY AND SECURITY  
UNITED STATES SENATE**

**APRIL 24, 2018**

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Chairman Fischer, Ranking Member Peters, Members of the Subcommittee, thank you for the opportunity to testify on the activities of the Saint Lawrence Seaway Development Corporation (SLSDC). It is an honor to represent the Corporation and to appear today before the Subcommittee.

The SLSDC is a wholly owned government corporation within the U.S. Department of Transportation with an enacted FY 2018 budget of \$40 million. The SLSDC's annual funding is appropriated primarily from the user fee-based Harbor Maintenance Trust Fund, not from charging Seaway tolls to commercial vessels. The SLSDC's mission is to operate and maintain the U.S. infrastructure and waters of the St. Lawrence Seaway, while performing trade and economic development activities designed to enhance the utilization of the Great Lakes St. Lawrence Seaway System. The SLSDC is primarily responsible for maintaining and operating the two U.S. Seaway locks located in Massena, New York, and controlling commercial vessel traffic in areas of the St. Lawrence River and Lake Ontario. Since the opening of the St. Lawrence Seaway in 1959, the SLSDC has directly served the marine transportation industries by providing a safe, reliable, and efficient deep-draft international waterway, in cooperation with our Canadian counterpart, the St. Lawrence Seaway Management Corporation (SLSMC).

Over the last 59 navigation seasons, nearly 2.9 billion tons of cargo has transited the St. Lawrence Seaway, including grain, iron ore, iron and steel, project cargoes, and other raw and bulk commodities. During the 2017 navigation season, the Seaway enjoyed a 9 percent increase in commercial traffic, including a 25 percent increase in U.S. exports to foreign markets.

A ship entering the St. Lawrence Seaway at Montreal, Canada, and transiting to Lake Erie crosses the international border 27 times while passing through the St. Lawrence Seaway's 15 locks (2 U.S. and 13 Canadian). As a consequence of this geographic fact, when constructing the Seaway in 1954, the U.S. and Canada created a binational governance approach for the Seaway through an exchange of diplomatic notes, constituting a binding international agreement between the countries. It was and remains a bold, optimistic, and unique governance approach; all other U.S. inland waterways are operated and maintained directly either by the U.S. Army Corps of Engineers or the U.S. Coast Guard. Due to the geography of the St. Lawrence River and the importance of the sovereignty issues involved, the U.S. and Canadian Governments established a

binational framework of civilian federal oversight and control of this international waterway, which today is administered by the SLSDC and the Canadian SLSMC.

To carry out its mission, the SLSDC possesses legal authorities that distinguish it from other operating modes at the Department of Transportation and from most other Executive Branch agencies. The Wiley-Dondero Act of 1954 (Seaway Act), which created, and permanently authorized the SLSDC, incorporated authorities that were first put into law through the Government Corporation Control Act of 1945. The SLSDC was created as a corporation to manage this public infrastructure asset and provide a direct service to customers – moving ships safely and efficiently through a binational waterway. The succinct and efficient nature of the Corporation’s enabling statute allows sufficient flexibility to manage its operations like a business. Some of the distinguishing attributes include the ability to make and carry out contracts or agreements (MOUs) as necessary to conduct business as well as the ability to acquire real and personal property and sell, lease, or dispose of such property. Together with its mission of providing 24/7 transportation services, these legal authorities help promote a culture within the SLSDC of accountability and customer service.

The deep degree of trust and operational cross-border interaction that has developed between the U.S. and Canadian Seaway entities over the past 60 years helps maintain a transit experience for Seaway users that is essentially seamless from a ship captain’s perspective. It is a remarkable achievement given the operational complexities and multiple jurisdictions that impact that transit. This close binational partnership is built on institutional and personal relationships, and everyone at the SLSDC works hard to maintain and enhance these relationships. The SLSDC’s ability to achieve its mission is directly dependent on its success in sustaining and improving stakeholder interactions.

The St. Lawrence Seaway directly serves an eight-state, two-province region that accounts for one-quarter of the U.S. gross domestic product (GDP), one-half of North America’s manufacturing and services industries, and is home to nearly one-quarter of the continent’s population. The Great Lakes region is the world’s third largest economy with annual economic output of nearly \$6 trillion<sup>1</sup>.

Annual commerce on the Great Lakes Seaway System typically exceeds 180 million metric tons and serves U.S. miners, farmers, factory workers, and commercial interests from the Great Lakes region. Virtually every type of bulk and general cargo commodity moves on the Great Lakes Seaway System, including iron ore for the U.S. steel industry; limestone for construction and steel industries; coal for power generation and steel production; grain exports from U.S. farms; general cargo such as iron and steel products and heavy machinery; and cement, salt, and stone aggregates for agriculture and industry.

Maritime commerce on the Great Lakes Seaway System provides shippers with nearly \$4 billion in annual cost savings compared to the next least expensive mode of transportation<sup>2</sup>. The

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<sup>1</sup> BMO (Bank of Montreal) Capital Markets Economic Research, Great Lakes-St. Lawrence Region Special Report, Spring 2017, page 1. Author, Robert Kavcic, Senior Economist.

<sup>2</sup> U.S. Army Corps of Engineers, Great Lakes Navigation System: Economic Strength to the Nation, January, 2009

waterway also produces significant economic benefits to the Great Lakes region. An economic impact study completed in 2011 concluded that maritime commerce on the Great Lakes Seaway System sustains 227,000 U.S. and Canadian jobs, \$35 billion in transportation-related business revenue, \$14 billion in personal income, and \$5 billion in federal, state, provincial, and local taxes each year. An updated economic impact study is currently being completed and new data is expected to be released by early summer. The 2011 study significantly raised awareness about the importance of the Great Lakes Seaway System and this updated report will likely be equally impactful.

### Safety/Reliability/Accountability

The continued safety and reliability of our waterway is the foundation upon which we can promote and accommodate increases in maritime cargo. The St. Lawrence Seaway is already one of the world's safest waterways and that safety record continues to improve. Over the last 20 years, the average number of vessel incidents in the Seaway has decreased significantly. An incident is defined as a situation that triggers an on-board inspection by one of the Seaway inspectors. It could include on board injuries and vessel damage. From 1996-2006, the average number of incidents was 19 per year. Over the next 11 years, from 2007 through 2017, the average number of incidents declined to only 6 per year. Despite the harsh weather conditions during this past year's closing period, 2017 was one of the safest Seaway navigation seasons on record with just 4 vessel incidents in the U.S. sector during the 298-day season. This positive development can be attributed to several factors including the implementation of a consolidated U.S.-Canadian Enhanced Ship Inspection (ESI) Program in Montreal in 1997, the development of the Seaway's Automatic Identification System (AIS) vessel traffic management technology, exceptionally skilled SLSDC lock operations and maintenance staff as well as professionals, including pilots and vessel officers and crews, and a major fleet renewal program implemented by many of the Seaway's customers.

In addition, since the Seaway's opening in 1959, the SLSDC has consistently maintained a 99 percent reliability rate for its locks and the U.S. sector of the waterway. The SLSDC calculates the reliability rate by subtracting delays (weather, vessel, and lock-related) from the total hours/minutes during the navigation season. The SLSDC manages the tabulation of this rate in-house and is not dependent on contractor data. This high mark of success is due primarily to the SLSDC's efficient management and operations of the locks and control of vessel traffic. Global customers from nearly 70 countries return each year to use the Seaway because of the waterway's strong safety record, efficient operations, and near-perfect reliability rate.

The Seaway also ensures strict ballast water management efforts to prevent any new introductions of aquatic invasive species via commercial vessels entering Seaway waters. In 2008, the SLSDC and Canadian SLSMC implemented regulations jointly requiring all ships with no ballast in their tanks to conduct saltwater flushing of the empty ballast water tanks before arriving in the Seaway. The SLSDC, along with the U.S. Coast Guard, Transport Canada, and the SLSMC, formed the Ballast Water Working Group (BWWG) to enforce ballast water inspections of all vessels to ensure these regulations are carried out. The BWWG's inspection efforts are an SLSDC operational performance measurement and an annual summary report documents the group's inspections and findings. The report measures both the performance of

the binational inspection team in inspecting the ballast tanks of incoming ocean vessels and the compliance by the oceangoing trade in meeting U.S. and Canadian ballast water management requirements.

In both cases, the results of this year's report are outstanding. In 2017, every ballast tank of every ocean vessel entering the Seaway was assessed. Of these 8,350 tanks, only 68 registered low salinity, which equates to a ship compliance rate of 99.2 percent. In those rare instances where salinity levels do not meet the standard, the ballast tanks are sealed and then re-inspected on the vessel's outbound journey to ensure that the tank was not used on its voyage in the Great Lakes. Since 2009, 100 percent of international vessels entering the Seaway have received a ballast water management exam. The Great Lakes Seaway System has one of the most stringent inspection regimes in world. The effectiveness of the Seaway's ballast water inspection program has been publicly credited as a key factor in preventing the discovery of establishment of any new invasive species through ballast water in the Great Lakes since 2006 – the longest such period of non-detection on record.

### Infrastructure Modernization

The locks, channels, and accompanying infrastructure of the St. Lawrence Seaway owned and maintained by the SLSDC are “perpetual” transportation assets that require periodic and regular capital reinvestment in order to continue to operate safely, reliably, and efficiently. In 2007, the U.S. Army Corps of Engineers completed a binational assessment of the infrastructure needs of the Great Lakes St. Lawrence Seaway System. That study laid foundational groundwork by identifying the specific infrastructure rehabilitation and modernization projects that were needed throughout the system. After 50 years of continuous operation with only minimal capital reinvestment, Congress approved the authorization and funding for the Seaway's Asset Renewal Program (ARP) beginning in FY 2009. Every penny of the ARP program is accounted for and we provide Congress with an annual ARP progress report. This program will enable the SLSDC to effectively manage the Seaway's assets for the next 50 years.

The projects and equipment included in the ARP address various needs for the two U.S. Seaway locks, the Seaway International Bridge, maintenance dredging, operational systems, and Corporation facilities and equipment. The start of the program marked the first time in the Seaway's 50-year history that a coordinated effort to repair and modernize the U.S. Seaway infrastructure had taken place.

During the ARP's first nine years (FY2009-FY2017), the SLSDC obligated \$139 million on 48 separate projects. Several ARP projects involve implementation of new innovations and improved technologies for the operation of the Seaway infrastructure, resulting in reduced maintenance needs and operating costs to Seaway users. In FY 2017, the SLSDC obligated \$27.9 million on 11 ARP projects, including \$18.1 million for the start of the SLSDC's tugboat replacement project and \$8.1 million for construction work for the Hands-Free-Mooring (HFM) system installation at Snell Lock. These are two of our largest planned capital and infrastructure projects, on which work continues in FY 2018.

The SLSDC's tugboat, the *Robinson Bay*, is 60 years old and is the SLSDC's primary watercraft for emergency response, ice breaking operations, navigation aid (buoy) placement/removal, and other operational activities, including moving the SLSDC's 300-ton capacity gatelifter crane barge. It is the only icebreaking asset stationed full-time in the region, and the replacement tug will have even greater icebreaking capabilities. Expenses incurred in maintaining the existing tugboat have increased significantly in recent years. We anticipate delivery of the new tug in the summer of 2019 and look forward to the greater operational and cost saving efficiencies it will bring.

The Seaway's HFM project is the first use of this technology for an inland waterway to safely transit commercial vessels through a lock system. The innovative technology allows commercial ships to transit safely and efficiently, while also enhancing workplace and operational safety conditions. It is estimated that HFM technology will reduce lock transit times by approximately seven minutes per lockage for each vessel, which equates to 3-4 hours of potential time savings on a roundtrip transit. HFM will be operational at all Seaway locks by the end of next year (2019).

### Innovation

The SLSDC is always looking to leverage technology to improve system utilization. The list of cutting-edge technologies implemented, or soon to be introduced by the Seaway is impressive. It includes the Automatic Identification System (AIS), the Draft Information System (DIS), and the Hands-Free-Mooring technology. Mandatory Global Positioning System-based (GPS) Automatic Identification System (AIS) carriage became effective on the St. Lawrence Seaway on March 31, 2003. The Seaway became the first inland waterway in the western hemisphere to implement an operational AIS vessel traffic services system. All commercial vessels transiting in Seaway waters from Montreal to mid-Lake Erie are capable of ship-to-ship, ship-to-shore, and shore-to-ship communication under all weather conditions on a 24/7 basis.

A major enhancement to the AIS system occurred in July 2012 with implementation of the Draft Information System (DIS). DIS is an onboard technology, providing Seaway mariners with real-time information on current and projected distances between a vessel's keel and the river bottom using real-time, three-dimensional displays. The Seaway is the first inland waterway in the world to implement this technology. Vessels with DIS technology are permitted to sail at a draft of up to three inches above the published maximum, which could allow for transport of as much as 360 additional metric tons of cargo per voyage. In addition to increasing the productivity and economic competitiveness of the Seaway, AIS and DIS have greatly enhanced the safety and efficiency of the waterway and have improved Great Lakes Seaway System maritime security. By pairing these navigation technologies, precise vessel traffic management has been enhanced more than ever, and ships equipped with these technologies can travel the Seaway more safely and with more cargo.

The SLSDC and Canadian SLSMC are currently assessing how to improve and enhance our joint vessel traffic management system. We are studying how to enhance our existing AIS real-time data to generate precise arrival time calculations between a vessel's current location and waypoints critical to the safety and efficiency of the Great Lakes Seaway System. Ultimately,

this technology could form the foundation of a more comprehensive traffic management system that could enable enhanced voyage planning and traffic management not only in the Seaway, but throughout the entire Great Lakes. Although still in the ‘concept’ stage, this technology innovation has exciting possibilities for Great Lakes Seaway System shipping.

### Economic Development

The statute that created the SLSDC provided general authority for the Corporation to undertake trade and economic development activities and this is an important aspect of our mission. The SLSDC devotes resources to trade and economic development activities aimed at increasing commercial trade through the St. Lawrence Seaway and improving economic conditions in the eight Great Lakes states. The primary benefit is the stimulation of U.S. and Canadian port city economies through increased maritime industry activity, including services and employment to support maritime commerce. In 2015, the SLSDC designated a Great Lakes Regional Representative who leads this value-added service for the broad stakeholder community.

Initiative activities include facilitating new trade for Great Lakes Seaway System ports, conducting trade research and analysis to assist Great Lakes Seaway System stakeholders in identifying cargo trends and new business, participating in joint marketing efforts with our Canadian counterparts, promoting the Seaway System to prospective customers, and assessing the economic impact of Great Lakes Seaway shipping.

The SLSDC’s trade and economic development activities were instrumental in the launch of the first regularly scheduled international liner service to a U.S. port on the Great Lakes since the 1970’s. In 2014, the SLSDC joined the Port of Cleveland and the Dutch carrier company, the Spliethoff Group, in announcing and promoting the launch of the new Cleveland-Europe Express monthly liner service. It is significant in that these vessels carry containers as well as high-value cargoes into and out of the Lakes. The new service runs between the Port of Cleveland and Antwerp, Belgium, via the St. Lawrence Seaway. In 2015, the Spliethoff Group added a second monthly vessel to the program. This year marks the fifth year of operations for this service, and the Spliethoff fleet of vessels is making additional calls at ports throughout the Great Lakes Seaway System while sustaining its dedicated sailing schedule into Cleveland.

Working directly with Great Lakes ports, the SLSDC helps identify ways to increase tonnage traffic in traditional Seaway cargoes as well as in diversifying the types of cargo moving through their port. One example is the Seaway’s initiative on increasing U.S. grain exports through the St. Lawrence Seaway system, which led to a 21 percent increase in U.S. grain transiting the locks in the 2016 shipping season. Overall, during the 2017 navigation season, U.S. exports moving through the St. Lawrence Seaway to foreign markets increased 25 percent, as compared to 2016. In 2017, many U.S. Great Lakes ports identified, developed, secured and promoted new initiatives within their communities, providing new business opportunities that are benefiting their local and regional economies. The Port of Milwaukee, Wisconsin, is a prime example. Over the last several years, the Port, in coordination with the SLSDC, has developed a close working relationship with one of its private tenants, COFCO (formerly Nidera) to find ways to increase Seaway-related grain exports. From 2008 to 2013, only 8 total vessels shipped export U.S. grain from the Port of Milwaukee via the Seaway. Over the last four shipping seasons,

however, that number has increased to 40 total vessels, averaging 10 Seaway vessels per year. As a result of these efforts, the Port of Milwaukee and the SLSDC have been able to better utilize the Great Lakes as a reliable maritime artery for commerce of Wisconsin agribusiness.

Likewise, the Port of Monroe, Michigan, is diversifying its cargo traffic and more than doubled its international cargo tonnage in 2017. Last year, the Port of Monroe handled the majority of components of Michigan's largest construction project in 2017, the Arauco Fiberboard Plant in Grayling, Michigan. The Port also constructed a new riverfront dock in 2017. The new dock capabilities, together with its partnership with Spliethoff to move project cargo, should provide for Seaway-related tonnage increases this year.

Additionally, international cruising activity is increasing in the Great Lakes. Two additional ships have been added to the inventory for a total of eight cruise vessels that have itineraries in the Lakes, in what will be the busiest cruise season since 2004. The increase in inventory will offer no less than 85 separate cruises between May and early November this year. The SLSDC continues to work with U.S. Customs and Border Protection to find ways to streamline passenger processing and bring more cruise vessels to more ports in the Great Lakes. Seaway stakeholders and customers alike are realizing the benefits from a modernizing vision of the Great Lakes and the added value the SLSDC and Great Lakes ports are providing to their communities and to the region.

### Challenges

*Water Levels* – Water flows and levels can significantly impact the safe and efficient operation of navigation in the Seaway. In December 2016, the International Joint Commission (IJC), after concurrence by the U.S. and Canadian Governments, adopted a new water level plan for Lake Ontario and the St. Lawrence River, Plan 2014, which replaced the plan in place since 1958. This plan is the successful result of many years of extensive collaboration between and among the U.S. and Canadian governments, the IJC, and other stakeholders who depend on the economic as well as environmental health of Lake Ontario and the St. Lawrence River. The SLSDC was an active participant in the process that led to the adoption of Plan 2014. A part of the discussions that led to Plan 2014, it was recommended that a seat on the Board of the International Lake Ontario-St. Lawrence River Board be provided for DOT/SLSDC. The Board manages water flows and levels on the St. Lawrence River, and the ability for the SLSDC to participate as a Board member would be extremely helpful to our operations. However, this has not yet occurred. As we approach another season of anticipated high water levels similar to last year, there could be significant impacts on commercial shipping, as well as other stakeholders.

*Pilotage* – All international vessels entering the Great Lakes and St. Lawrence Seaway System (GLSLS) are required by U.S. and Canadian regulations to have a certified vessel pilot on board to assist the vessel's captain in navigating the vessel while transiting the GLSLS. The oversight of pilotage services is a state-regulated activity everywhere in the U.S., except for the Great Lakes, where pilotage is regulated by the U.S. Coast Guard Office of Great Lakes Pilotage pursuant to the Great Lakes Pilotage Act of 1960. In addition to overseeing the three U.S. pilot districts in the GLSLS, the U.S. Coast Guard also establishes the rates that the U.S. pilots may charge for the provision of their services to vessel owners. Changes in the rate adjustment

methodology have been controversial and have been met with criticism, and litigation, from various U.S. and Canadian commercial navigation stakeholders. The availability and cost of U.S. pilotage services in the Great Lakes St. Lawrence Seaway System are crucial components of the overall safety and economic competitiveness of the System. It is essential that the availability of Great Lakes Seaway System pilots be maintained in a manner that ensures safety while promoting the competitiveness of the System.

#### FY2019 Budget Request

For FY 2019, the President's Budget request includes an appropriation from the Harbor Maintenance Trust Fund of \$28.84 million to fund the operations and maintenance of the U.S. portion of the St. Lawrence Seaway as well as infrastructure-related projects included in the Seaway's Asset Renewal Program (ARP). The request for the SLSDC's Agency Operations program of \$19.11 million will fund all non-ARP activities and expenses, including all Corporation personnel compensation and benefits for 144 FTEs. For the ARP program, the request is for \$9.73 million for 19 projects, including \$5 million for the completion of the ongoing tugboat replacement project and \$2.5 million for the continuation of maintenance dredging in the U.S. sections of the St. Lawrence River. SLSDC activities in the budget request support the Secretary's priorities of safety, infrastructure, innovation, and mission efficiency. At the FY 2019 request level, the SLSDC will continue to perform its core mission of serving the U.S. intermodal and international transportation system through the operation and maintenance of a safe, reliable, efficient, and competitive deep-draft waterway. The FY 2019 budget request also highlighted an Administration proposal to examine the feasibility of privatizing or commercializing U.S. Seaway operations currently managed by the SLSDC. The Canadian federal government commercialized Canadian Seaway operations in 1998, resulting in greater operational efficiencies and enhanced customer service focus.

The SLSDC remains dedicated to safely and efficiently operating the U.S. portion of the St. Lawrence Seaway, while also promoting the economic benefits of the marine mode, attracting new cargoes to the Seaway, and leveraging technology and innovation to enhance the system's performance and safety. Next year, 2019, will mark the Seaway's 60<sup>th</sup> Anniversary. For the past 59 years, the Seaway has been a model of binational partnership, ensuring that this international waterway is one of the safest, innovative, and reliable transportation routes in the world. With the investments being made in the Seaway by the U.S. and Canada, it will remain so for many years to come.

Thank you again for the opportunity to appear before you today. I am glad to answer any questions from Members of the Subcommittee.

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