# SeawayCompass





U.S. Department of Transportation • Saint Lawrence Seaway Development Corporation

WINTER 2019

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## SLSDC's Major Winter Work Projects: \$152 Million Invested Since 2009



The major projects for the Winter 2019 non-navigation period include completion of the work on the Hands-Free Mooring (HFM) slots at Snell Lock, the replacement of damaged concrete in the filling and emptying culvert valve recesses at Eisenhower Lock and the installation of new filling and emptying culvert valves at Eisenhower Lock.

The completion of the work on the HFM slots includes placement of reinforced concrete in areas that were demolished last winter. This work will provide finished surfaces for the new slots and complete the installation of the steel rails that the HFM units will ride up and down on as a ship is raised and lowered in the lock.

The work in the culvert valve recesses requires SLSDC crews to remove damaged concrete in the filling and emptying culverts, which are located up to 100 feet below the top of the lock wall, in areas where the large, steel filling and emptying culvert valves operate. The existing

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## DEPUTY ADMINISTRATOR'S COLUMN

#### State of the Seaway



Craig Middlebrook

Deputy Administrator

2019 marks the 60<sup>th</sup> Anniversary of the opening of the St. Lawrence Seaway, the binational waterway that connects the Atlantic Ocean to the Great Lakes and the heartland of America.

How fitting that in this

GUEST COLUMNIST

#### William W. Scriber

Executive Director, Port of Oswego Authority

## Looking Forward with the Past as a Guide



Since taking over the Executive Director position in December of 2018, after serving as the Acting Director for over a year, it was clear the key to a prosperous future for the Port of Oswego would

be found in our rich history. Oswego is the

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#### anniversary year, we can talk about the bright future of the Great Lakes Seaway System — North America's "Fourth Sea

Coast", while celebrating its historic past.

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Built in 1959, the Seaway still functions as it was originally envisioned, moving bulk commodities safely and efficiently. As the waterway turns 60, there are so many new opportunities – and challenges – in front of the Seaway and its stakeholders. We are truly living in a transformative moment at the Seaway: new technologies, changing trade patterns, varying water levels, new ballast water regulations, and a host of other significant variables keep all of us on our toes.

There is one constant, however, that we always begin and end our day with: our focus on safety and reliability. The continued safety and reliability of our waterway is the foundation upon which we promote and can ultimately accommodate growth in maritime cargo. The 2018 Seaway navigation season was one of the safest on record, a continuation of the long and steady improvement in our safety performance.

New technology, newer fleets, a stringent inspection program, and highly trained staff all play a key role in our ability to achieve exceptional safety results. Likewise, last year the reliability rate for the lock and channel infrastructure in the St. Lawrence River section of the Seaway remained extremely high. During the previous navigation season, we maintained a 99.9 percent lock availability rate for the two U.S. Seaway locks located in Massena, New York. The System Availability rate, which includes the availability of the entire U.S. sector, not just the locks, improved to 98.9 percent from 96.4 in 2017.

This continued record of reliability performance can be attributed in large part to the Department of Transportation's ongoing commitment, through the Asset Renewal Program, to the long-term investment and rehabilitation of the Saint Lawrence Seaway Development Corporation's (SLSDC) infrastructure. 2019 marks the completion of a decade of infrastructure rehabilitation and maintenance work at the U.S. locks under the ground-breaking Seaway Asset Renewal Program. Through the first ten years of this program, the SLSDC has obligated \$152 million on 48 separate projects. Several projects involve the implementation of new innovations and improved technologies for the operation of Seaway infrastructure, resulting in reduced maintenance needs and operating costs to Seaway users. One of the projects

involves the installation of a unique, first-of-its-kind, Hands-Free Mooring (HFM) technology system in the locks. It is arguably the most important technological advance at the Seaway since 1959 and will revolutionize our vessel traffic management system. The use of this technology will not only dramatically reduce safety risks for linehandlers as well as vessel crews, it will also 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. It will also reduce the need for special equipment on vessels to transit the Seaway, thereby increasing the pool of vessels worldwide that can now enter the Great Lakes Seaway System.

The Seaway System is more relevant today than ever. With marketing incentives to expand the types of cargo moving through the Seaway, increased efforts to attract passenger cruise ships to the Great Lakes, technological advances that improve the transit experience, and significant investments by shipowners to build vessels designed specifically for operation in the Great Lakes Seaway System, the waterway is poised for future growth.

#### SLSDC'S MAJOR WINTER WORKS PROJECTS CONTINUED FROM PAGE 1

valves are 60 years old and are being replaced with a new valve design which will make inspection and maintenance of those valves easier in the future. The plans are to clean out the damaged concrete and install steel reinforcing to support the newly placed concrete. The new concrete will be placed using a process called shotcreting, which uses compressed air to spray the concrete mixture on to the surfaces. The filling and emptying culvert valves at Eisenhower Lock will be replaced after the concrete work in the recess areas is completed. These valves control the flow of water into and out of the lock through the concrete culverts that run the length of the lock and are approximately 14 feet wide by 14 feet tall.

For an inside look at a Day at the Locks, watch the <u>Winter Works video</u> narrated by **Jeffrey Scharf**, SLSDC's Director of the Office of Engineering and Maintenance.

## **Binational Seaway Opening**

The SLSDC and its Canadian counterpart, the St. Lawrence Seaway Management Corporation (SLSMC), have agreed on an opening date of March 26, 2019 for the Montreal to Lake Ontario Section of the Seaway. The binational opening ceremony will be held in Montreal at St. Lambert Lock and will include a celebration of the 60th Anniversary of the opening of the St. Lawrence Seaway.



## Seaway 60 Spotlight — Episode 1

To mark the 60th anniversary of the St. Lawrence Seaway, the SLSDC will feature a series of videos to highlight the binational system and its remarkable stakeholder community. The inaugural video features a conversation with Deputy Administrator Middlebrook and Mr. Marc Gagnon, Director of Government Affairs and Regulatory Compliance for Fednav, International, Ltd., a regular customer of the Seaway since it opened in 1959. Mr. Gagnon shares his thoughts on the 60-year history of this partnership and some interesting highlights about Fednav's operations. Via the following link, you can watch a condensed version of this *Seaway 60 Spotlight*: <a href="https://www.youtube.com/embed/lxTOCfm9M2w">https://www.youtube.com/embed/lxTOCfm9M2w</a>.

Any Great Lakes Seaway System stakeholders that will be in Washington, DC at some point in 2019 are invited to participate in the *Seaway 60 Spotlight* video features. Please contact Nancy Alcalde (<u>Nancy.alcalde@dot.gov</u>) if you are interested in filming an interview with the Deputy Administrator while you are in DC.



### DID YOU KNOW?

#### ARP Highlights 2018 NAVIGATION SEASON

- SLSDC obligated \$2 Million to continue installation of the Hands-Free Mooring System at Eisenhower Lock. On September 19, 2018, HFM was made operational.
- In FY 2018, construction began on new SLSDC Ice-Class Tugboat. The vessel is expected to be delivered to Massena, New York in September 2019.



## Rethinking Vessel Traffic Management: Integrating New Technologies to Improve Efficiency



VOLPE Center technical experts present new concepts for the future of vessel traffic management to a delegation that included SLSDC Deputy Administrator Craig Middlebrook and other SLSDC senior leadership.

Secretary Elaine L. Chao has three guiding priorities for the Department of Transportation: safety, infrastructure, and innovation. At the SLSDC, we focus on these priorities at every level. The adoption of the new Hands-Free Mooring technology throughout the Seaway System is laying the groundwork for additional advances in traffic and voyage management. We believe, just as has been found in air traffic management, that there are benefits to adopting a dynamic, traffic flow management system for maritime navigation. The Seaway wants to be at the forefront of that initiative. The goal is to develop a dynamic traffic management system that could continually adjust vessel traffic movements using real-time data, system-wide, that will allow the traffic flow to be optimized throughout the Seaway and beyond.

Working in partnership with the Canadian St. Lawrence Seaway Management Corporation and with the help of the U.S. Department of Transportation's Joint Program Office and technical experts at the U.S. DOT-affiliated VOLPE Center, the SLSDC is researching the development of a traffic flow management prototype for use in the Seaway. This cutting-edge technology is expected to produce notable safety and business benefits to Seaway customers and stakeholders, helping to keep the Seaway competitive from a cost, safety, and efficiency standpoint. A demonstration prototype is expected to be developed by September 2019.

#### GUEST COLUMNIST WILLIAM W. SCRIBER CONTINUED FROM PAGE 1

oldest U.S. port on the Great Lakes, and was designated as a port of entry regulated by U.S. Customs on March 2, 1799. By that time, Oswego had already been an active port for generations, dating back to the French and Indian War.

Until 1928, Oswego was the largest lumber port in the United States. Grain trade was also a major market to the port with seven flour mills located on Oswego River banks, making it one of the most important flour-milling centers in the United States. Until the middle of the 20th century, coal was a major export from Pennsylvania through Oswego. By 1940, the extended port and waterfront handled nearly 1,000,000 tons.

The current port, the Port of Oswego Authority, was constructed between 1960 and 1963, by the State of New York. We opened for business in the 1963 shipping season, where our physical configuration has principally remained unchanged.

The port's past provides guidance for a new vision—that would once again place New York State's only port on Lake Ontario as a commanding commerce center and a source of pride for Oswego. After many months of planning and research, along with the port's Planning and Development Committee, we produced a path forward with a clear and defined plan in three phases.

PORT OF OSWEGO

AUTHORIT

First, phase one, the port would address the \$6.5 million high water high water damage that affected the port in 2017. The damage was so extensive, FEMA declared the port a disaster, and thus began our plans to rebuild—including new additions to storage and expansion. Specifically, our plan to construct a new grain dock facility, with New York State's investment, to build upon our increased grain exports of 325 percent in 2018. This proposed grain dock facility, by 2021, would give us the ability to export over 150,000 metric tons of grain a year.

Next, phase two is to invest heavily in our waterfront recreational business. The port has a new RV parking parcel opening in early May that will act as an extension of our operating marina and provide a blossoming service to our boating customers. Also, in cooperation with several agencies, we are developing plans for a preforming arts center on our waterfront—providing access from both land and water. To further facilitate recreational business, phase two plans include the ability to dock lake cruise ships. Additionally, in phase two, with already secured funding, we will begin to expand in the summer of 2019 by building a new warehouse and rail dock siding to be used for new businesses desiring to locate at the port.

Last, phase three, our most aggressive plan, has a four to five-year build-out which will reconfigure the main east dock with new storage facilities and a redesigned dock space to accommodate current Great Lakes cargo. In looking to the port's impressive past, lies a bold and achievable blueprint for the port's future. To build upon the success of the port and to turn visions into undeniable reality is what drives my work every day. I am proud to sit at the helm of the Port of Oswego Authority during this exciting and transformative period.

## BE ON THE LOOKOUT...

The Seaway's social network is expanding to Twitter! We plan to announce our Twitter handle shortly, so please continue following us on Facebook at <u>www.fb.com/usdotslsdc</u> for an update!

## Ballast Water Working Group Results Show 100 Percent Tank Inspection, High Vessel Compliance

A new U.S.-Canada federal agency report released in February shows a notable increase in the number of ballast tank inspections of oceangoing commercial ships entering the Great Lakes St. Lawrence Seaway System from outside U.S. or Canadian waters. Ship operators also continued to show high compliance rates with ballast water management requirements in 2018. The 2018 Summary of Great Lakes Seaway Ballast Water Working Group released by the U.S. Coast Guard examined the U.S.-Canada Great Lakes Seaway System ballast water ship inspection program. In 2018, 100 percent of oceangoing ships bound for the Great Lakes Seaway System from outside U.S. or Canadian waters received ballast tank exams. In total, 9,343 ballast tanks were assessed during 498 vessel transits, 993 more tanks than in 2017. Moreover, the report found that 98.2 percent of all ships were compliant with ballast water management requirements. "These results continue to support the message that no unmanaged ballast water is coming into the Great Lakes through the Seaway on international vessels", said SLSDC Deputy Administrator Craig H. Middlebrook.

In 2018, 166 Letters of Retention were issued for non-compliant tanks. Ships with non-compliant ballast tanks were required to take one of several options: (1) retain the ballast water and residuals on board, (2) treat the ballast water in an environmentally sound and approved manner, or (3) return to sea to conduct a ballast water exchange. BWWG verification efforts indicated that there was no non-compliant ballast water discharged in the Great Lakes Seaway System. The SLSDC implemented regulations in 2008 requiring all oceangoing ships with no ballast in their tanks to conduct saltwater flushing of their empty ballast water tanks before arriving in the Seaway. Collectively, the Seaway ballast water regulations. along with those of Transport Canada and the U.S. Coast Guard, include saltwater flushing, detailed documentation requirements, increased inspections, and civil penalties, providing a comprehensive regulatory enforcement regime to protect the Great Lakes Seaway System.

The report was prepared by the Great Lakes Seaway Ballast Water Working Group (BWWG), which includes representatives of the SLSDC, the U.S. Coast Guard, Transport Canada, and the Canadian St. Lawrence Seaway Management Corporation. The group coordinates U.S. and Canadian enforcement and compliance efforts to reduce the introduction of aquatic invasive species in the Great Lakes via ships' ballast water.

The BWWG expects high compliance rates for ships to continue in 2019, noting in the report, "Since 2006, ballast water management requirements in the Great Lakes and the St. Lawrence Seaway System have been the most stringent in the world." A copy of the report can be <u>found here.</u>

#### New Tug Construction Progresses





Hull flip in progress

Main Hull staged for outfitting

**Construction on the tug** to replace the *Robinson Bay* continues at Gulf Island Shipyard in Louisiana. The main hull was flipped right side up in November 2018, and shipyard workers have begun the fitting-out process of the vessel. The fitting-out process involves the fabrication and installation of all piping required for the vessels' engineering systems.

These systems include fuel oil, lube oil, hydraulic fluid, fresh water, oily water, sewage, and firefighting water. Also included in this process is the installation of all main machinery foundations, followed by the installation of the machinery, including the three generator sets, two main engines, and two Z-Drives. In addition to the main machinery outfitting, progress continues in the construction and outfitting of the crews berthing rooms, crew lounge, galley and command center, all within the superstructure.

In late January, the wheelhouse was erected on top of the deckhouse, forming the superstructure of the vessel. The next milestone for the project will be the erection of the superstructure onto the main hull, forming the complete vessel. Once complete, outfitting of the vessel will continue and the vessel hull will be blasted, painted, and prepared for launch. Launch is currently scheduled for June 2019, with the vessel expected to be delivered to Massena, New York in September 2019. Once in service, the tug will serve as the primary vessel for the Corporation's buoy barge and derrick crane barge. The vessel will also be classed for vessel-assist and will be able to respond to vessel incidents that may occur on the river.

## Indiana Capitol Day — Governor Holcomb Accepts Pacesetter Award on Behalf of Port of Burns Harbor

As part of a December delegation

visit by Great Lakes Seaway Partnership members to Indianapolis, Deputy Administrator Middlebrook presented one of the SLSDC's Pacesetter Awards to Indiana Governor Eric Holcomb on behalf of the Port of Indiana-Burns Harbor. The Pacesetter Award is presented to U.S. Great Lakes ports that have registered increases in shipments of international cargo tonnage through the St. Lawrence Seaway compared to the previous year. In 2017, the Port of Indiana-Burns Harbor moved nearly 704,000 metric tons of freight, an increase of 21 percent over 2016. It was one of six ports earning the Pacesetter Award for 2017.

The Port of Indiana-Burns Harbor plays a crucial role in cargo shipping on the Great Lakes Seaway System, accounting for almost half of the U.S. economic activity related to shipping on the Great Lakes. In 2017, cargo movements on the Great Lakes generated economic impacts in Indiana supporting over 66,000 jobs and creating \$13.7 billion in economic activity.

"The vision for the Port of Indiana-Burns Harbor to be a magnet for trade is inspiring, and your continued leadership and commitment is transforming that vision into reality," said Middlebrook.

The award was presented during the Great Lakes Seaway "Capitol Day" at the historic state capitol building. Chief executives from the Great Lakes shipping industry visited Indianapolis to meet with the Governor as well as public and private leaders from Indiana to discuss



Pictured from left: Craig Middlebrook, Deputy Administrator, Saint Lawrence Seaway Development Corporation; Indiana Governor Eric J. Holcomb; Vanta E. Coda II, Chief Executive Officer, Ports of Indiana.

the economic impact of Great Lakes Seaway shipping on the state and Great Lakes region.

After accepting the Pacesetter Award on behalf of the Port of Indiana-Burns Harbor, Governor Holcomb presented an Executive Order proclaiming December 12, 2018, as "Great Lakes Maritime Day."



## 2018 Navigation Season: The Busiest in More than a Decade

## The St. Lawrence Seaway's 2018 Navigation Season

was the busiest in 11 years, with 40,985 million metric tons of cargo moving through the Seaway (combined Montreal to Lake Ontario and Welland Canal Sections) a 7 percent increase over last year. This is the largest amount of cargo moved since 2007 (43.0 million metric tons), and the first time since 2008 that the Seaway has moved over 40 million tons. Last year's total also exceeds the 5-, 10- and 15-year averages for total Seaway cargo. In addition to the increase in cargo moved, vessel transits were also up 6 percent over 2017 (4,381 vs. 4,124). Positive tonnage gains from the beginning to the end of the navigation season were reflected in the movement of coal, liquid bulk and construction materials like stone, cement, pig iron,

#### 2018 NAVIGATION SEASON IN REVIEW

Vessel Transits

4,594

Liquid Bulk

3,414

General Cargo



8,403 9,765

Canadian Grain

↑6.52% These charts show total traffic for the 2017 and 14.48% 2018 navigation seasons, with vessel transits as the total number of transits and commodities shown in thousands of tons. 2,418 1,854 2.270 1.937 Loaded Ballast Comparative Commodities 1.11% 16.21% ↓10.41% 1.57% 10.94% 1 1 36.39% 12.14%

10,409 10,733

Dry Bulk

2,523

Coal

gypsum and asphalt. The Canadian and foreign-flagged vessels set the pace early for the export of U.S. and Canadian agriculture products. By the end of the season, more than 12 million tonnes of grain made its way to an estimated 30 countries. Most notably for this season was the 37 percent increase in U.S. grain exports, from an increasing number of U.S. Great Lakes ports including Duluth, Toledo, Milwaukee, Burns Harbor, Chicago and Oswego. The ports of Thunder Bay, Hamilton, Sarnia, Goderich, and Windsor supported a 21 percent increase, collectively, in Canadian grain exports.

7,371

Iron Ore

2,406

U.S. Grain

The Seaway continued to attract increased breakbulk traffic. Project cargoes shipped on the Seaway gained attention throughout the season. While still a smaller fraction of overall tonnage shipped annually in the Great Lakes Seaway system, because of its high value, project cargo garnered the business headlines at ports on both sides of the Lakes. Numerous shiploads of wind turbine components arrived at the ports of Ogdensburg, New York and Thunder Bay, Ontario. Brewery tanks, which have become the new trend in oversized cargo, arrived at the ports of Burns Harbor, Ogdensburg, and Cleveland. The Port of Erie received two Heat Recovery Generators that arrived onboard three separate ships from three different countries; China, Vietnam and Sweden. Other notable shipments included large generators, heavy machinery and yachts.

### Personnel News



On January 17, 2019, the Board of Directors of the Great Lakes Pilotage Authority announced the appointment of **Ms. Michèle Bergevin** 

to the position of Chief Executive Officer. Ms. Bergevin is a seasoned professional with extensive knowledge of pilotage and Crown Corporations and assumed her new role as Chief Executive Officer on February 25, 2019.

Michèle succeeds Mr. Robert Lemire following his retirement in December 2018 after 33 years of dedicated service to the Authority.

Ms. Bergevin holds a Bachelor's degree in Business Administration with a specialization in France, from the

Université du Québec à Hull. She has held various posi-tions over her career within the Federal Government, and more recently as the Executive Director, Senior Personnel and Portfolio Governance, Crown Corporation and Portfolio Governance with Transport Canada. Prior to this, Ms. Bergevin held the position of Director, Portfolio Management within the Crown Corporation Portfolio Governance at Transport Canada and played a major role in the Pilotage Act Review from May 2017 to May 2018. Congratulations, Michèle and happy retirement Robert!



Duluth Seaway Port Authority announced two new appointments. Jeff Stollenwerk has been appointed Director of Government and Environmental Affairs and Jayson Hron was named Director of Communications and Marketing.



Jeff Stollenwerk, an experienced water quality professional, brings over 28 years of environmental and legislative expertise as Director of

Government and Environmental Affairs, including development and implementation of regulatory policy on navigational dredge material reuse and mitigating environmental risks from maritime vessel discharges. Having managed water quality programs for industrial sectors throughout Minnesota for the state's Pollution Control Agency, he developed strong, collaborative relationships with representatives at all levels of government – federal, tribal, state and local units – providing expert advice on a wide range of legislative initiatives.

Stollenwerk succeeds Deb DeLuca, who was appointed executive director of the organization in August 2018. A graduate of Bemidji State University, Stollenwerk has degrees in chemistry and aquatic biology. He is a longstanding officer and board member of the Brule River Sportsmen's Club. He and his wife Stefanie live in Duluth. Congratulations, Jeff!

Jayson Hron

(pronounced 'RŌHN'), brings an extensive background as Director of Communications and Marketing, having served in

a variety of public relations, copywriting, media relations, brand management and marketing capacities. Since 2013, Hron has been a communications manager for USA Hockey in Colorado Springs, Colo. For eight years prior, he led communications efforts as senior public relations specialist in the financial services industry, for the ING Group in St. Cloud, Minn.

After beginning his career as a sportswriter, editor and page designer with Murphy McGinnis Newspapers, he served as communications director for the United States Hockey League and, later, assistant director of public relations in the athletics department at the University of Minnesota Duluth (UMD), earning a pair of awards from the College Sports Information Directors of America. Congratulations, Jayson!

## Save the Date

#### March

March 19 Annual Port of Green Bay Symposium Green Bay, WI https://www.portofgreenbay.com/

March 26 Opening of The Great Lakes St. Lawrence Seaway System 2019 Navigation Season Montreal, Que. http://www.greatlakes-seaway.com/en/commercial/ opening.html

#### April

April 8–11 Seatrade Conference Miami Beach, FL https://www.seatradecruiseglobal.com/

#### May

May 6–8 Great Lakes Economic Forum Cleveland, OH https://www.glc.org/event/2019-05-great-lakeseconomic-forum-/

May 8 Wisconsin International Trade Conference Milwaukee, WI http://www.wisconsintradeconference.org/

May 21–23 Breakbulk Europe Bremen, Germany https://europe.breakbulk.com/home/why-visit

#### June

June 5–7 Greentech 2019 Environmental Conference Cleveland, OH https://green-marine.org/greentech/













