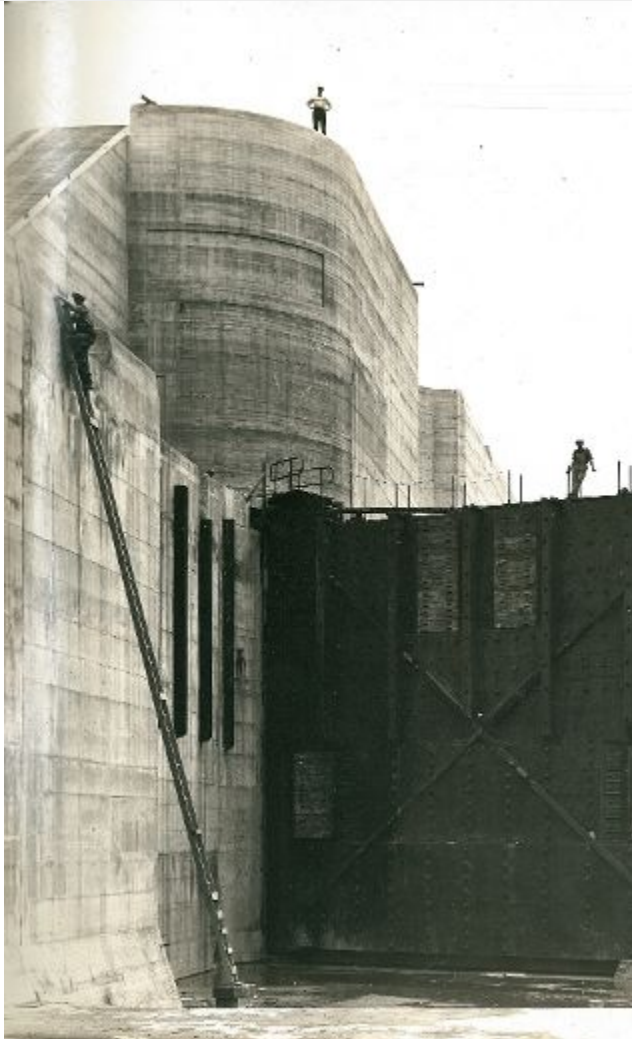


The Welland Ship Canal and the men who died to build it

Friday, August 28, 2015



Lock 1 of the Welland Canal is shown with its gates closed in June 1924, in this photo taken by J. A. McDonald, courtesy of the Welland Ship Canal album, Brock University Archives.

The Welland Canal Fallen Workers Memorial is expected to be completed in 2017 and will be located along the canal close to Lock 3. This series of columns complements the work of the task force in bringing the monument to reality, and brings to life the men who were a part of the construction. This memorial will honour the memory of the 137 men who lost their lives in the construction of this major national infrastructure project.

The Welland Ship Canal — also known as the fourth and most current Welland Canal — was a major Canadian infrastructure project.

With a view to modernizing and making more efficient the previous canal, the construction work, which began in 1913 and would continue until 1935, would have a lasting impact on the local community. This project cut right through the geography of the region and its economic impact would be felt nationally.

At its peak, the work engaged 4,000 workers with many thousands more having been employed at different times over the course of the two decades of construction.

As we have read in these pages, this great national project was also one of tragedy. A staggering 137 men lost their lives as a result of accidents that occurred during the construction. This number is shockingly high. To our knowledge, the largest loss of life in the history of Canadian government infrastructure projects. [But see following paragraph]

Men were killed in a number of ways: drowning, electrocution, struck by objects, crushing injuries, falls, buried alive and more. Death on major infrastructure projects was not unusual in this time period — less than 30 years prior to the beginning of the work on the Welland Canal, for example, an estimated 600 Chinese labourers alone had died during the construction of the Canadian Pacific Railway. It was a recognized fact that there could be workplace fatalities in any project this large and it seems to have been generally accepted that there would be approximately one death for every million dollars spent on the work. In this case, the final project cost was roughly \$130 million and the final toll was higher than expected.

This project and its death toll would lead to improvements in the conditions of workers on major infrastructure projects in Canada, including provision for first aid and hospital facilities and a more formal system of reporting and assessing blame.

The men — and they were all men — who lost their lives during the course of the work were not just nameless, faceless workers. They came from all walks of life. They were young, old, married and single; they were born in Canada and recent immigrants. Some were veterans of the First World War.

They were engineers, carpenters, labourers, water boys, electricians and much more.

Their lives can provide for us a touchstone to the past.

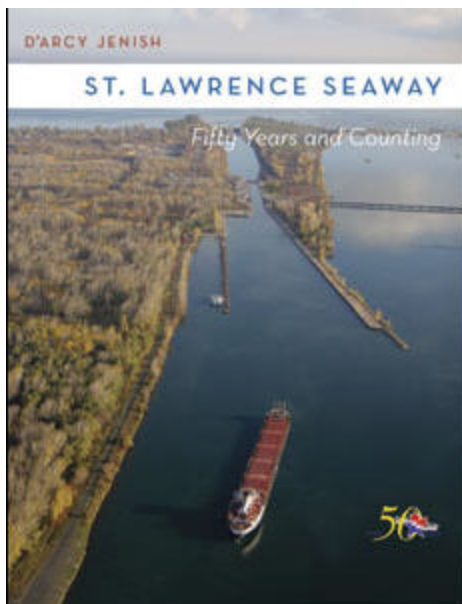
The Welland Canal Fallen Workers Memorial Task Force is a volunteer group established to finance, design, build and install a memorial to recognize workers who were killed while building the Welland Ship Canal between 1914 and 1932. The Welland Canal Fallen Workers Memorial Task Force is now fundraising to build the memorial.

Seaway History

The St. Lawrence Seaway opened to navigation in 1959. Construction of the 189-mile (306-kilometer) stretch of the Seaway between Montreal and Lake Ontario is recognized as one of the most challenging engineering feats in history. Seven locks were built in the Montreal-Lake Ontario section of the Seaway, five Canadian and two U.S., in order to lift vessels to 246 feet (75 meters) above sea level.

The 28-mile (44 kilometer) Welland Canal is the fourth version of a waterway link between Lake Ontario and Lake Erie, first built in 1829. The present canal was completed in 1932, deepened in the 1950s as part of the Seaway project, and further straightened in 1973. Today its eight locks, all Canadian, lift ships 326 feet (100 meters) over the Niagara Escarpment.

[Read the book \(PDF copy\):](#)



The St. Lawrence Seaway

Fifty Years and Counting

D'Arcy Jenish

Milestones

1680

Dollier de Casson, Superior of the Sulpician Seminary in Montreal, begins trying to build a 1.5 m. (5 feet) deep canal to bypass the Lachine Rapids between Lake St. Louis and Montreal; the canal was finally completed in 1824.

1779

The Royal Army Engineers start work on four small canals on the north shore of the St. Lawrence at Montreal to connect Lake St. Louis to Lake St. Francis.

1783

The four small canals on the north shore of the St. Lawrence are completed by the Royal Army Engineers. Only 0.76 m (2.5 feet) deep, they have a total of five locks, each 1.83 m (6 feet) wide — the first ever built on the St. Lawrence, and possibly in North America.

1824

The Casson Canal (now known as the Lachine Canal) links Montreal with Lake St. Louis. At the time it was 1.52 m (5 feet) deep and had seven locks.

1829

On November 30, 1829, the schooner "Ann and Jane" completes the first transit of the partially completed Welland Canal.

1833

The first Welland Canal is completed. Built by the Welland Canal Company, it is 43.5 km (27 miles) long, with 40 wooden locks.

1843

Canal opens at Cornwall.

1845

Canal opens at Beauharnois.

1895

The first joint U.S.-Canadian Deep Waterways Commission is formed to study the feasibility of a Seaway. It is followed by an International Joint Commission in 1909, but the Seaway remains a dream.

1932

Fourth Welland Canal completed: 43.5 km (27 miles) long, 7.62 m (25 feet) minimum depth. Eight locks raise ships a total of 99.36 m (326 feet). This was the first step in the completion of the modern Seaway.

Canada and the U.S. sign the Great Lakes - St. Lawrence Deep Waterway Treaty, but no action is taken.

1949

Public interest in a deeper waterway on the St. Lawrence River and increased trade pressures lead to a joint Canadian-U.S. Deep Waterways Commission to again study the feasibility of what will eventually become the St. Lawrence Seaway. (Two world wars and the opposition of influential rail and other private industrial sectors in the U.S. had prevented the start of any joint projects. Negotiations continued, an International Joint Commission was established in 1909, followed by the signing of the 1932 Great Lakes - St. Lawrence Deep Waterway Treaty and the Great Lakes - St. Lawrence Basin Agreement in 1941. Still, work did not begin).

1951

The *St. Lawrence Seaway Authority Act* and the *International Rapids Power Development Act* allow Canadians to begin navigation works on the Canadian side of the river from Montreal to Lake Ontario, as well as in the Welland Canal. At the same time, a joint U.S. Canadian project begins power works in the International Rapids section of the St. Lawrence. The U.S. also begins work on the Wiley-Dondero Canal that will bypass the International Rapids. Co-operation and consultation on the elements of the modern Seaway commences.

1954

The St. Lawrence Seaway Authority is established by an Act of Parliament, with the mandate to acquire lands for, construct, operate and maintain a deep draft waterway between the port of Montreal and Lake Erie, along with the international bridges that cross it and other lands and structures.

The United States joins Canada on the development of the St. Lawrence Seaway with the passage of the *Wiley-Dondero Act* (or Seaway Act) on May 13. The U.S. Saint Lawrence Seaway Development Corporation (SLSDC) was also created by the law.

Agreement reached between the U.S. and Canada concerning construction of the Seaway. The cost of the navigation project was \$470.3 million, of which Canada paid \$336.5 million and the U.S. \$133.8 million.

Work on the Seaway begins in September. Four Montreal-area bridges are modified without disrupting traffic, new channels are dug and existing ones dredged. Excavators uncover rock formations so tough that new methods and stronger machinery are needed. The related power development will flood 259 square km (100 square miles); land is expropriated and entire communities resettled. Some 6,500 people are moved to new homes and some 550 dwellings are transported to waiting foundations in the new Ontario towns of Long Sault, Ingleside and Iroquois.

1958

The new Iroquois Lock is in regular use by May. On July 4, the Snell and Eisenhower Locks built by the U.S. at Massena, N.Y., are opened and the power is switched on at the international Moses-Saunders generating station. The four-year construction deadline has been met almost to the day.

1959

Completion of the joint U.S.-Canadian St. Lawrence Seaway navigation project links the Great Lakes region to global markets.

On April 25, the icebreaker "D'Iberville" begins the first through transit of the St. Lawrence Seaway, officially opened by Queen Elizabeth and President Eisenhower on June 26. Dedication ceremonies were also held June 27 in Massena, New York, and involved the Queen and Vice-President Richard M. Nixon.

Gross ship registered tons for this navigation season amount to 25.1 million.

1966

The first Welland Canal traffic control center comes into service. The U. S. Department of Transportation is created, making SLSDC subject to the policy direction and supervision of the Secretary of Transportation.

1973

The Welland Canal realignment to bypass the City of Welland opens to navigation.

1977

The total annual cargo on the Montreal-Lake Ontario section reaches 57.7 million tonnes.

1978

Canadian Seaway operations become self-sufficient, depending on revenue from tolls and investments. The federal government still contributes to major capital works.

1979

The gross tonnage of ships passing through the Seaway reaches 80.3 million tonnes.

20th anniversary of the opening of the Seaway to deep-draft navigation, and 150th anniversary of opening of original Welland Canal.

1983

The Seaway carries its billionth tonne of cargo.

1984

The Seaway celebrates its 25th anniversary. U.S. President Ronald Reagan declares 1984 as "The Year of the Seaway" and June 27, 1984 as "Seaway Day".

1986

The St. Lawrence Seaway Authority begins a seven-year program to rehabilitate the Welland Canal, at a cost to the federal government of \$175 million.

The U.S. Congress passes the *Water Resources Development Act* converting SLSDC from a self-financing to an appropriated agency and eliminating the U.S. portion of Seaway tolls.

1989

In 30 years of operation, the Seaway has handled more than 160,000 ship transits by ships from more than 50 nations.

1993

The Seaway's draft is increased from 26 feet to 26 feet, 3 inches, enabling ships to carry more cargo per voyage, and wide-beam ships, exceeding the 76 foot limit by up to 2 feet, are first admitted through the locks.

1995

The Montreal/Lake Ontario section of the Seaway establishes a new record, remaining open from March 24 to December 28, a total of 280 days.

1996

May 10 marks the passage through the Seaway system of two billion tonnes of cargo, valued at more than \$300 billion.

In June 1996, the *Canada Marine Act* that will commercialize the Seaway is first introduced in the House of Commons. Parliament is dissolved for a federal election before the Act passes, it is reintroduced in August 1997, and receives royal assent in June 1998.

1998

On October 1, operational control of the Canadian portion of the Seaway is officially transferred from The St. Lawrence Seaway Authority to The St. Lawrence Seaway Management Corporation, a new not-for-profit corporation. The Government of Canada continues to own the infrastructure and acts as regulator.

1999

40th anniversary of the opening of the St. Lawrence Seaway.

2003

Automatic Identification System (AIS) mandatory on the St. Lawrence Seaway. This milestone marks the first use of AIS on an inland waterway in the world.

2004

175th anniversary of the first Welland Canal.

50th anniversary of the beginning of construction of the St. Lawrence Seaway.

The Seaway's draft is increased from 26 feet, 3 inches, to 26 feet, 6 inches, enabling ships to carry up to 300 tonnes of additional cargo per voyage.

The Great Lakes St. Lawrence Seaway is now branded as HwyH₂O.

2006

The Montreal/Lake Ontario section of the Seaway establishes a new record, remaining open from March 23 to December 30, a total of 283 days.

2016

84th anniversary of the fourth Welland Canal.

2016

57th anniversary of the St. Lawrence Seaway.

