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# OUTLOOK FOR THE FORMATION OF ICE IN THE ST. LAWRENCE SEAWAY & LAKE ERIE ISSUED BY CANADIAN ICE SERVICE

prepared for

The Saint-Lawrence Seaway Management Corporation

8 November 2022

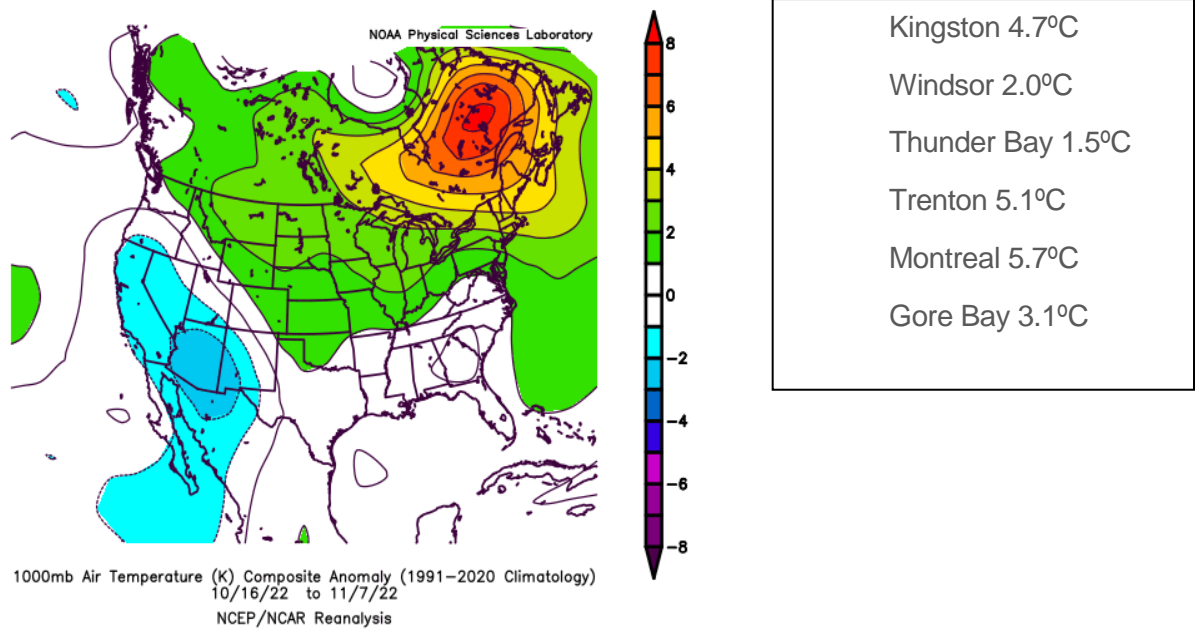


Canada 

From mid-October to early November, mean surface air temperatures at select sites along the Saint-Lawrence Seaway as well as sites throughout the southern Great Lakes (Erie and Ontario) have all been above normal. All stations have reported mean surface air temperature anomalies of between 1.6°C to 3.3°C.

The mean air temperatures anomalies over the period from October 15<sup>th</sup> to November 8<sup>th</sup> were all above normal from 2 to 6 °C.

### Temperature anomaly from Oct 15 to Nov7,2022



Temperatures have been above normal for the period October 15 to November 7, 2022.

Surface water temperatures along the Seaway are all above normal due to the persistent warmth over the region for the last month and the very warm first week in November. Currently all stations are reporting above normal temperatures with water temperature anomalies ranging from 1.6°C to 3.3°C.

Station	Date	Temperature	Normal	Anomaly
St. Lambert Lock	8 Nov	12.0°C	8.7°C	+3.3 °C
St. Louis Bridge	8 Nov	12.0°C	9.9°C	+2.1 °C
Cornwall	7 Nov	13.2°C	11.1°C	+2.1 °C
Iroquois Lock	8 Nov	12.1°C	10.7°C	+1.4 °C
Kingston	8 Nov	12.8°C	11.2°C	+1.6 °C
Port Colborne	8 Nov	12.7°C	11.0°C	+2.7 °C
Port Weller	8 Nov	13.4°C	11.3°C	+2.1 °C

A period of below normal air temperatures of about 5.0°C below normal is forecast near mid-November over the region with highs near 1-3°C and overnight lows below freezing at -4 °C to -6 °C.

Near normal air temperatures are forecast for the St. Lawrence Seaway and over Lake Ontario and Erie for the remainder of November and December 2022 as well as January and February 2023.

The following table lists the average dates of occurrence of the first permanent ice and complete freeze-over (if available) with the forecast trend for 2022/23.

Station	First permanent ice	Complete Freeze Over	Forecast
St. Lambert Lock	07 Dec	18 Dec	10-14 days later
Upper Beauharnois	14 Dec	24 Dec	10-14 days later
Cornwall	29 Dec	N/A	10-14 days later
Iroquois Lock	26 Dec	02 Jan	10-14 days later
Welland Canal			

Due to the near normal temperatures through the early part of the winter and the water temperatures currently several degrees above normal, it is felt that the onset of ice through the Seaway and the Great Lakes will be delayed. The forecast for the Seaway calls for the first permanent ice to form near Montreal around mid to late December and gradually spread westward to reach Cornwall by mid-January.

The Western Basin of Lake Erie will experience widespread ice growth in early January 2023 and spread over the entire basin by mid to late January 2023.

**THE NEXT ST. LAWRENCE SEAWAY AND LAKE ERIE FORECAST WILL BE ISSUED ON  
DECEMBER 1, 2022.**

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