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

prepared for

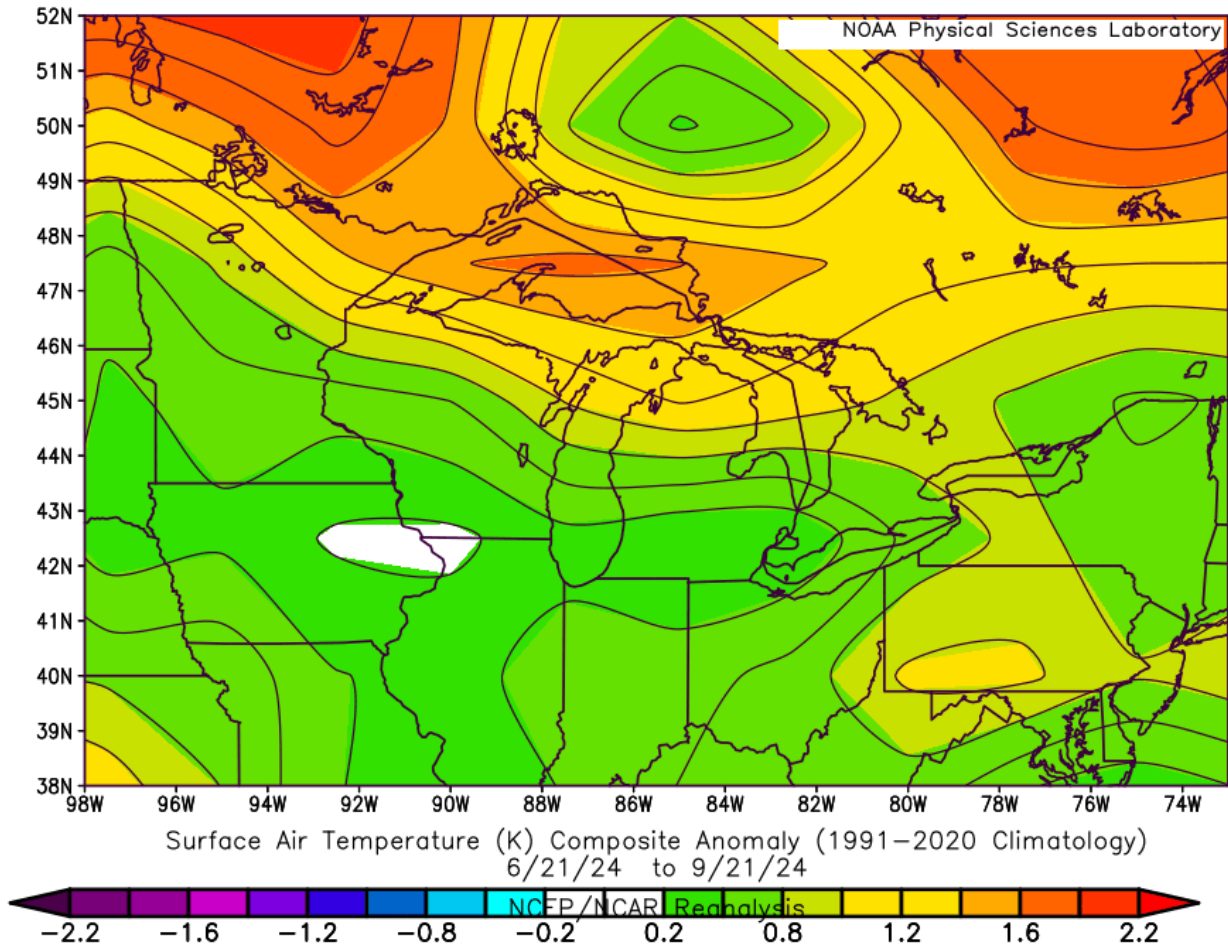
The Saint-Lawrence Seaway Management Corporation

15<sup>th</sup> of November 2024



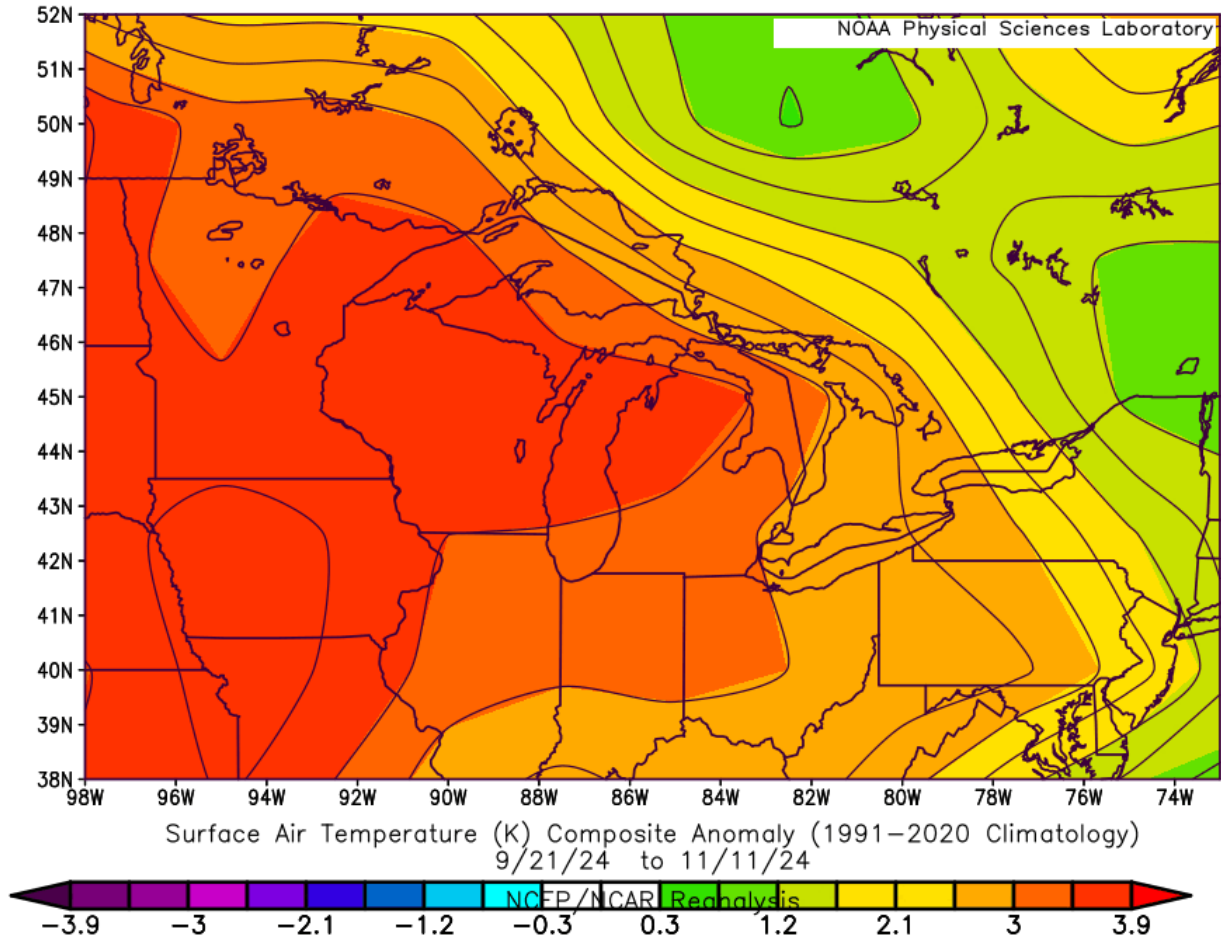
Canada 

## Temperatures this summer and fall:



Temperatures have been slightly above normal from June 21<sup>st</sup> to September 21<sup>st</sup>.

Air temperatures during the summer have been near normal over the area with most areas slightly warmer than normal by about 0.5 °C.



Temperatures have been above normal from September 21<sup>st</sup> to November 11<sup>th</sup>.

Air temperatures during the fall warmed up and most areas were 2.5 °C to 3.5 °C warmer than is normal.

## Current conditions:

Surface water temperatures along the Seaway are all above normal.

All stations are reporting water temperature anomalies ranging from 1°C to 4°C warmer than normal.

Station	Date	Temperature	10-year Normal	Anomaly
St. Lambert Lock	15 Nov	9.4 °C	7.6 °C	+1.8 °C
St. Louis Bridge	15 Nov	10.8 °C	8.8 °C	+2.0 °C
Cornwall	15 Nov	13.7 °C	9.7 °C	+4.0 °C
Iroquois Lock	15 Nov	11.1 °C	10.2 °C	+0.9 °C
Kingston	15 Nov	14.1 °C	10.2 °C	+3.9 °C
Port Colborne	15 Nov	11.7 °C	10.1 °C	+1.6 °C
Port Weller	15 Nov	12.3 °C	10.7 °C	+1.6 °C

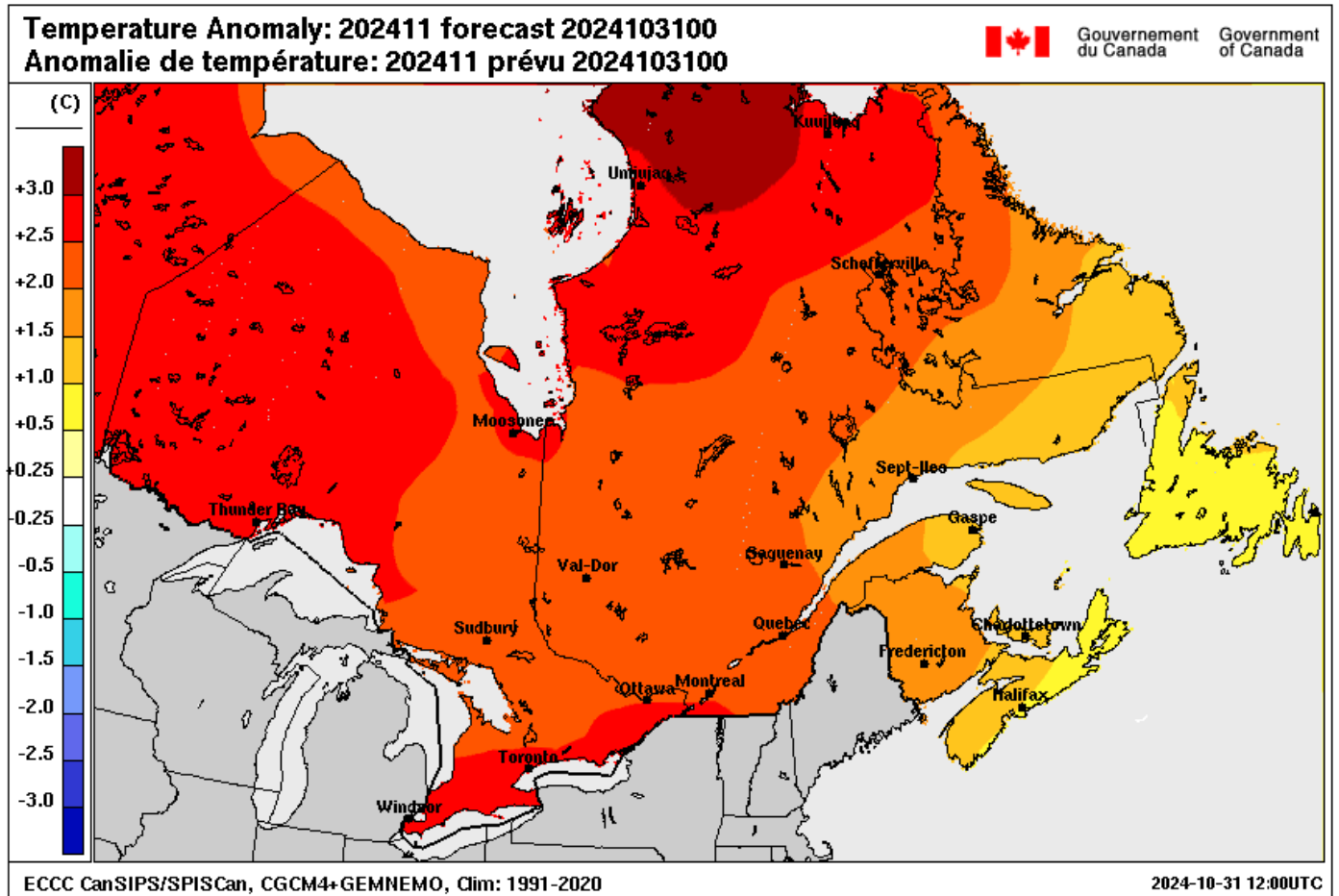
Surface water temperatures warmer than last year on all the Great Lakes.

	Superior	Michigan	Huron	Erie	Ontario
Last year	7.0 °C	10.0 °C	9.0 °C	11.4 °C	9.5 °C
This year	12.1 °C	12.1 °C	11.0 °C	13.9 °C	11.8 °C
difference	+ 4.1 °C	+ 2.1 °C	+ 2.0 °C	+ 2.5 °C	+ 2.5 °C

The surface water temperatures are also very warm this year with all the Great Lakes experiencing warmer surface water temperature this year than last year which itself had warm water temperatures.

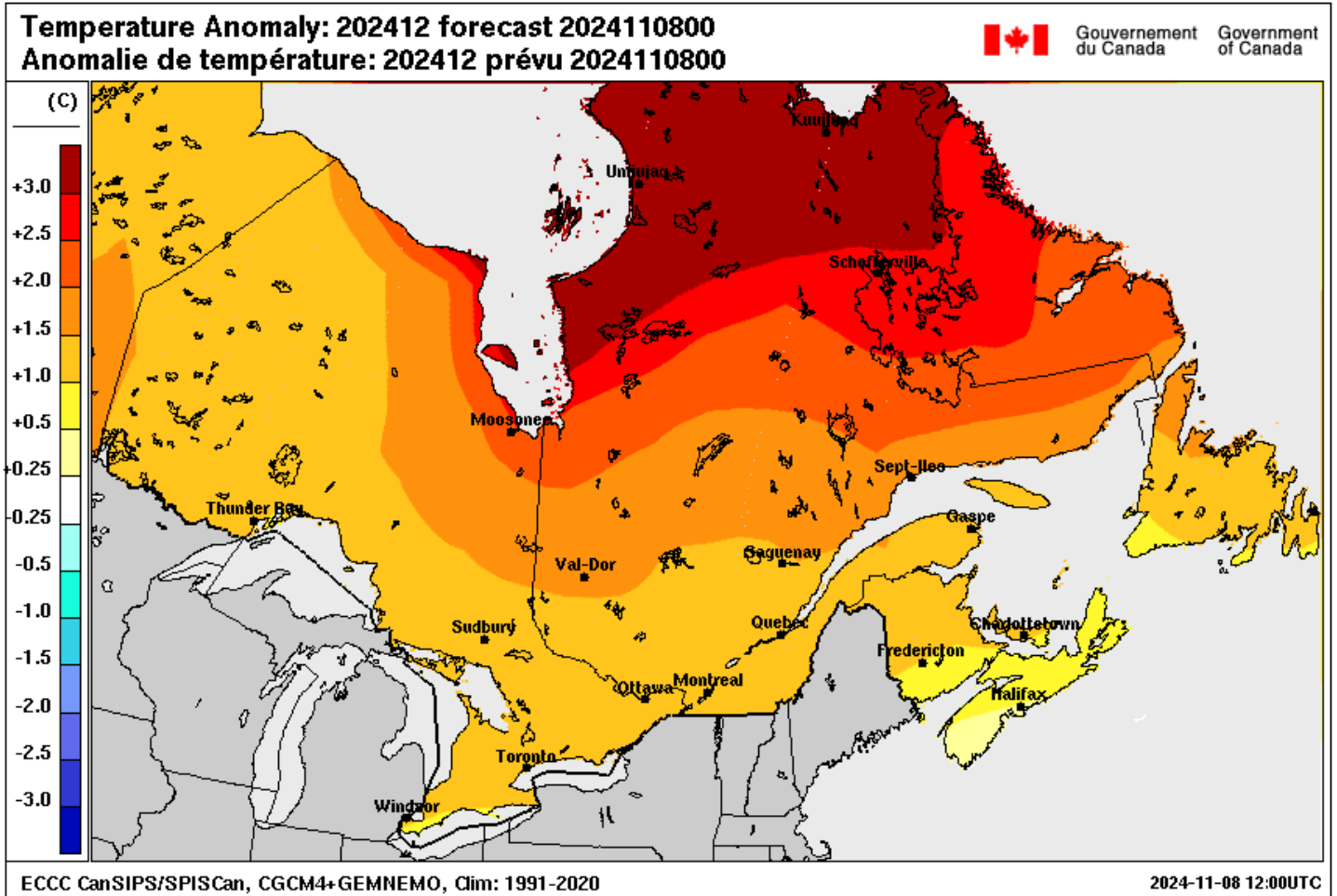
## Temperature forecast this winter:

Above normal temperatures are forecast for November.



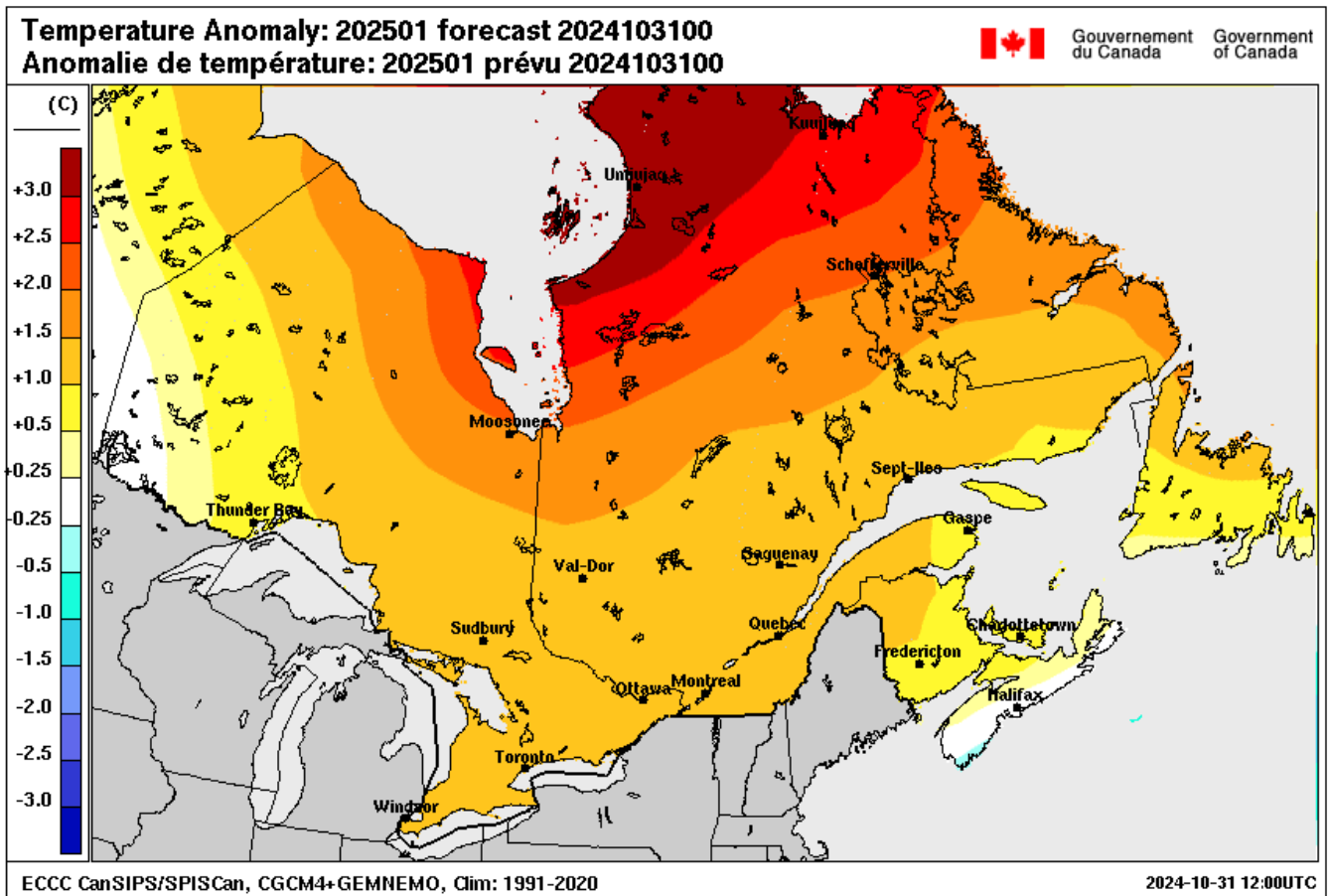
Air temperatures are forecast to average over 2 °C warmer than is normal over the southern Great Lakes and the Seaway for the month of November.

Above normal temperatures are forecast for December.



Air temperatures are forecast to average about 1 °C warmer than is normal over the southern Great Lakes and the Seaway for the month of December.

Above normal temperatures are forecast for January.



Air temperatures are forecast to average over 2 °C warmer than is normal over the southern Great Lakes and the Seaway for the month of January. Currently, it appears that January will start warmer than normal for the first three weeks but turn colder than is normal near the third week of the month.

The following table lists the average dates of occurrence of the first permanent ice, the complete freeze-over and the forecast trend for 2024/25.

Station	First permanent ice	Complete Freeze Over	Forecast
St. Lambert Lock	30 Dec	6 Jan	3-5 days later
Upper Beauharnois	21 Dec	30 Dec	3-5 days later
Cornwall (St Louis Bridge)	24 Dec	2 Jan	4-6 days later
Iroquois Lock	26 Dec	4 Jan	3-5 days later
Welland Canal	27 Dec	30 Dec	4-7 days later

### In Summary

- Water temperatures in the Great Lakes are warm this year.
- Southern Great Lakes are 2-3 °C warmer than last year.
- Temperatures have been warmer than normal this fall.
- Average temperatures are forecast to be above normal from now until mid-January.

**4-7 day later freezing is expected this year.**



- The currently observed above normal value for the surface water temperatures and the above normal air temperatures being forecast mean that freeze-up expected to be delayed 4-7 days.
- The first ice should start to form along the shores in western Lake Erie and in Lake St Clair during the first week of January. Not much ice growth beyond the shores is expected until after mid-January.
- The ice in western Lake Erie will spread covering large parts of the Western Basin after the third week of January. Lake St Clair should also see a rapid increase in ice covered after the third week of January.
- The St Lawrence near Kingston should see its first ice along the shores after the first week of January and be mainly ice covered after the third week of January.
- Increased winter storm activity is expected from mid-January to early March this year. From late January thru February several winter storms along the southern Great Lakes along with colder temperatures are possible. Lake enhanced snow events are also expected in the lee of the lakes during this period as well.

**Below normal ice conditions for the Seaway early this winter then starting to approach normal coverage in late January and February.**

**THE NEXT ST. LAWRENCE SEAWAY AND LAKE ERIE FORECAST WILL BE  
ISSUED ON Friday DECEMBER 2<sup>nd</sup>, 2024.**

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*Reanalysis charts of historic temperatures are from The NOAA Physical Sciences Laboratory (PSL)*

*Great Lakes surface water temperatures from NOAA - Great Lakes Environmental Research Laboratory*

*Station water temperature data from the Saint-Laurent Saint-Lawrence Seaway Management Corporation*

*All other charts and data are found at <https://iceweb1.cis.ec.gc.ca/>*