

# LEVEL *news*



Great Lakes - St. Lawrence River Water Levels

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## ***Lake Levels Continue Their Seasonal Decline***

### **Major Lake-Effect Snowfall in Fort Erie - Buffalo Area**

Water levels on the Great Lakes continued their seasonal decline during November fuelled in a large part by high rates of evaporation from the lakes. The levels of all of the Great Lakes are expected to continue to decline during December.

The levels of all of the Great Lakes remain below average. The levels of Lakes Superior and Michigan-Huron are below Chart Datum and especially low. Lakes Superior and Michigan-Huron are about 16 cm below their levels of one year ago.

Lake Superior began December about 35 cm below its long-term average. The

lake remains 8 cm below Chart Datum and just 16 cm above the lake's record low beginning-of-December level which occurred in 1925.

At the beginning of December, Lakes Michigan-Huron were 57 cm below their long-term average and 16 cm below Chart Datum. The lakes began the month 21 cm above their record low beginning-of-December level which was recorded in 1964.

The levels of Lakes St. Clair, Erie and Ontario are within a few centimetres of the levels recorded on these lakes last year. Lake St. Clair began December 21 cm below its long-term average level and 4 cm lower than last year. At

the beginning of December, Lake Erie was 12 cm below average and 2 cm lower than last year. Lake Ontario began the month 7 cm below average, 1 cm above last year's level.

Montréal Harbour's mean level was 5.50 m in November, a new record low for the month for the 1967-99 period. This is the second consecutive month that a new monthly record low for the period after 1967 was set. (Lower monthly mean levels were recorded at Montréal Harbour in the fall of 1964, prior to the major modifications to the navigation channel.) The  
**(continued on next page)**

#### **Lake-effect Snowfall**

Lake evaporation also led to significant lake-effect snowfalls in traditional snowbelt areas throughout the Great Lakes basin highlighted by a severe lake-effect storm in the Fort Erie, Ontario - Buffalo, New York area where snowfall accumulations up to 80 cm were reported in some areas. In the Buffalo metro area, where about 65 cm of snow fell from 1 to 9 p.m. on Monday, November 20<sup>th</sup>, thousands of people spent the night in autos and stores and many schoolchildren as well as buses became trapped. It was the most disruptive storm in the Buffalo area since the Blizzard of '77. Further lake-effect snow events can be expected until the waters of the lakes cool sufficiently to help limit evaporation.



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monthly level was 105 cm lower than the long-term average level for November (1967-99) and 32 cm lower than last November's level. The water level at the harbour was below Chart Datum for nineteen days during November. The most probable supplies forecast indicates that the harbour's monthly mean level will rise slightly in December, but remain well below average and near Chart Datum.

### **Lakes Superior and Ontario Regulation**

The outflow from Lake Superior for December is set at 1560 m<sup>3</sup>/s, which is as specified by the lake's regulation plan and the same as the past two months.

The low water levels in the

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### **November Precipitation Over Great Lakes**

**As a percentage of the long-term November average:**

|                             |             |                                   |             |
|-----------------------------|-------------|-----------------------------------|-------------|
| <b>Great Lakes Basin</b>    | <b>103%</b> | <b>Lake Erie</b>                  | <b>83%</b>  |
| <b>Lake Superior</b>        | <b>98%</b>  | <b>(including Lake St. Clair)</b> |             |
| <b>Lakes Michigan-Huron</b> | <b>111%</b> | <b>Lake Ontario</b>               | <b>100%</b> |

**NOTE: These figures are preliminary**

St. Lawrence River continue to be a concern for commercial navigation. To assist ships entering the Port of Montréal, the International St. Lawrence River Board of Control on several occasions temporarily set the Lake Ontario outflow at 200 to 300 m<sup>3</sup>/s more than specified by the lake's regulation plan during November.

Lake Ontario's regulation plan is expected to specify below average outflows for December. Depending on downstream water level conditions and navigation needs, flows more than specified by the regulation plan may occur at times during the month. The flow increases will continue to draw from the 6 cm of water that the Board had conserved on Lake Ontario earlier this year.

### **November Outflows From the Great Lakes**

**As a percentage of the long-term November average:**

|                      |            |                     |            |
|----------------------|------------|---------------------|------------|
| <b>Lake Superior</b> | <b>69%</b> | <b>Lake Erie</b>    | <b>95%</b> |
| <b>Lake Huron</b>    | <b>85%</b> | <b>Lake Ontario</b> | <b>94%</b> |

**NOTE: These figures are preliminary**