



LEVELnews

Great Lakes — St. Lawrence River Water Levels

Dry Conditions Contribute to Lowering Water Levels

After an October with several storms and above-average precipitation over the Great Lakes, dry conditions returned to the basin. A lack of precipitation over the Great Lakes basin during November contributed to the levels of all lakes declining by more than what is typically expected for the month.

- Despite below-average outflows from Lake Superior, water supplies to the lake that were significantly below-average caused its level to fall

by 9 cm during November compared to the typical November decline of 5 cm.

- Lakes Michigan–Huron's level fell by 8 cm during November, which is 3 cm more than the average November decline of 5 cm.

- Lake St. Clair's level fell by 15 cm last month, 8 cm more than its average November decline of 7 cm.

- Lake Erie's level fell by 5 cm during November, which is close to the decline of 4 cm

that is typical for the month.

- Lake Ontario's level fell by 8 cm this month, more than twice its average decline of 3 cm for November.

- Montreal Harbour's level in November was 91 cm lower than its monthly mean level and 42 cm lower than the same period last year. The average November level was 2 cm above what was observed this October and 13 cm higher than the 1918–2011 period of record low.

(continued on next page)

Great Lakes Water Level Information

| Lake | November 2012 Monthly Mean Level | | Beginning-of-December 2012 Level | |
|----------------|---|--------------------------|--|--------------------------|
| | Compared to Monthly Average (1918–2011) | Compared to One Year Ago | Compared to Beginning-of-Month Average (1918–2011) | Compared to One Year Ago |
| Superior | 35 cm below | 5 cm below | 37 cm below | 7 cm below |
| Michigan–Huron | 71 cm below | 40 cm below | 73 cm below | 42 cm below |
| St. Clair | 31 cm below | 36 cm below | 31 cm below | 69 cm below |
| Erie | 14 cm below | 36 cm below | 17 cm below | 51 cm below |
| Ontario | 25 cm below | 29 cm below | 29 cm below | 34 cm below |

The beginning-of-December levels on all the lakes are below their respective 1918–2011 beginning-of-month average levels, and are also lower than their beginning-of-month levels from a year ago. There have been only two years with a lower beginning-of-December level on Lake Superior since 1918. They are 1925 and 2006. The beginning-of-December level on Lakes Michigan–Huron was a new record low, breaking the old record set in December 1964. Lake Erie was closer to its mid-range level at the beginning of December compared to the other lakes. There have been 33 times

when Lake Erie was lower at the beginning of December. The beginning-of-month level for Lake Ontario has been lower nine times during its period of record, although the last time beginning-of-the-month levels were this low was in 1964.

Water Level Forecast

According to the beginning-of-December levels and assuming average water supply conditions, the levels of lakes St. Clair and Ontario are expected to rise slightly over the coming month, while the levels of lakes Superior, Michigan–Huron, and Erie are expected to decline slightly. With continued average or below-average supply conditions, Lakes Michigan–Huron is expected to set new record lows in early 2013. However, wet conditions and increased supplies are always possible which could prevent new record lows from being established. Montreal Harbour's monthly mean level is expected to rise in December compared to its November value.

For a graphical representation of recent and forecasted water levels on each of the Great Lakes, Lake St. Clair and Montreal Harbor, compared to their respective period-of-record monthly averages and extreme levels, please refer to the November 2012 edition of the Canadian Hydrographic Service's monthly water levels bulletin at: www.waterlevels.gc.ca/C&A/tidal_e.html

FOR MORE INFORMATION:

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ISSN 1925-5713

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November Precipitation over the Great Lakes*

| | | | |
|----------------------|-----|----------------------------|-----|
| Great Lakes Basin | 42% | Lake Erie | 31% |
| Lake Superior | 69% | (including Lake St. Clair) | |
| Lakes Michigan–Huron | 33% | Lake Ontario | 32% |

November Outflows from the Great Lakes*

| | | | |
|----------------------|-----|--------------|-----|
| Lake Superior | 73% | Lake Erie | 90% |
| Lakes Michigan–Huron | 85% | Lake Ontario | 87% |

*As a percentage of the long-term November Average.
NOTE: These figures are preliminary.