



LEVELnews

Great Lakes – St. Lawrence River Water Levels Record Rise Seen In Upper Lakes

Record high water supply conditions saw Lakes Superior and Michigan–Huron levels rise in December, setting a new record in Lake Superior and equalling the record in Lake Michigan–Huron. December water supply conditions in Lakes Erie and Ontario were closer to average. All levels were close to those seen last year at this time, with December’s monthly mean values within 2 cm of those seen at the same time last year.

- The monthly mean water level of Lake Superior was

19 cm above its period-of-record (1918–2014) average in December and only 1 cm lower than December 2014.

- Lake Michigan–Huron’s mean level in December was 22 cm above average and 2 cm higher than last year’s December level.
- Lake Erie’s mean monthly level was 18 cm above average, and the same as the December level of the previous year.
- Lake Ontario was 5 cm below its December average

level and 1 cm higher than last year.

- Montreal Harbour levels generally remained below average, despite the Ottawa River starting December at below-average flows and increasing to near-record-high values by the end of the month.

All of the lake levels rose in December, a first for the period of record (1918–2014). Record high water supplies on Lake Superior and Lake Michigan–Huron were due to the

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Great Lakes Water Level Information				
Lake	December 2015 Monthly Mean Level		Beginning-of-January 2016 Level	
	Compared to Monthly Average (1918–2014)	Compared to One Year Ago	Compared to Beginning-of-Month Average (1918–2014)	Compared to One Year Ago
Superior	19 cm above	1 cm below	22 cm above	2 cm below
Michigan–Huron	22 cm above	2 cm above	30 cm above	6 cm above
St. Clair	22 cm above	1 cm below	29 cm above	10 cm above
Erie	18 cm above	same	23 cm above	10 cm above
Ontario	5 cm below	1 cm above	1 cm below	3 cm above

combined effects of above-average precipitation and relatively constant above-freezing temperatures for much of the month. This likely resulted in precipitation runoff into the lakes when typically it would be held as snow while the relatively warm, unfluctuating temperatures created conditions with lower evaporation. The same effects were present to a lesser degree on Lakes Erie and Ontario, which kept the rise seen on those lakes closer to average. Lake Superior's level rose 1 cm in December, compared to the average (1918–2014) fall of 8 cm. This is a record for the

lake, and the first time that it has risen over the month of December since 1918. Lake Michigan–Huron also rose in December by 8 cm when the average fall is 4 cm, tying the record rise for the month set in 1983. Lake Erie rose 2 cm, slightly more than the average monthly rise of 1 cm. After the significant decline in Lake Ontario's levels seen last month, the lake's levels increased by 3 cm through December, more than the average rise of 1 cm.

higher than last year. Lake Erie was 23 cm above average at the beginning of January and 10 cm higher than this time last year. Lake Ontario's level started January at 1 cm below average, but 3 cm higher than this time last year.

Water Level Forecast

Relative to their beginning-of-January levels, and assuming average water supply conditions, all of the Great Lakes are expected to continue their seasonal rises during January, except for Lake Superior, which is expected to resume its seasonal decline. For a graphical representation of recent and forecasted water levels on the Great Lakes refer to the Canadian Hydrographic Service's monthly water levels bulletin at: tides-marees.gc.ca/C&A/bulletin-eng.html.

Beginning-of-January Lake Levels

At the beginning of January, levels of all the Great Lakes were above average (1918–2014) with the exception of Lake Ontario. When compared to their levels one year ago, only Lake Superior was below those for January 2015. Lake Superior's beginning-of-January level was 22 cm above average, and only 2 cm below last year's level. Lake Michigan–Huron's beginning-of-January level was 30 cm above average and 6 cm

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December Precipitation over the Great Lakes*

Great Lakes Basin	142%	Lake Erie	108%
Lake Superior	142%	(including Lake St. Clair)	
Lake Michigan–Huron	167%	Lake Ontario	101%

December Outflows from the Great Lakes*

Lake Superior	118%	Lake Erie	107%
Lake Michigan–Huron	109%	Lake Ontario	105%

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