



LEVELnews

Great Lakes — St. Lawrence River Water Levels

October Mostly Dry Across Great Lakes

Generally the Great Lakes experienced relatively dry conditions in October with slightly above average amounts of precipitation and increases in evaporation that are common for this time of year. October conditions were reversed between Lake Superior and Lake Ontario compared to what we have generally been seeing over the last few months. Lake Superior experienced dry conditions in October, after being general wet for most of past few months, resulting in a greater than average drop in its

level over the month. After a dry past few months in the Lake Ontario basin, a rain event that occurred between October 20 and 22 increased precipitation well above average for the month, and coupled with higher than average inflow from Lake Erie, kept Lake Ontario's levels from dropping considerably less than average. Despite Lake Ontario's combination of higher than average precipitation and inflow, it was the only Great Lake below its beginning-of-November average level.

- The monthly mean water

level of Lake Superior was 17 cm above its period-of-record (1918–2015) average in October and 8 cm higher than October 2015.

- Lake Michigan–Huron's mean level in October was 26 cm above average and 11 cm higher than the previous October level.
- Lake Erie's mean monthly level was 27 cm above average and 1 cm lower than last September.
- Lake Ontario was 7 cm below its October average

Great Lakes Water Level Information

Lake	October 2016 Monthly Mean Level		Beginning-of-November 2016 Level	
	Compared to Monthly Average (1918–2015)	Compared to One Year Ago	Compared to Beginning-of-Month Average (1918–2015)	Compared to One Year Ago
Superior	17 cm above	8 cm above	13 cm above	4 cm above
Michigan–Huron	26 cm above	11 cm above	25 cm above	9 cm above
St. Clair	33 cm above	6 cm above	34 cm above	11 cm above
Erie	27 cm above	1 cm below	28 cm above	3 cm above
Ontario	7 cm below	13 cm below	5 cm below	11 cm below

and 13 cm lower than the same time last year.

- The below average trend which began in the spring of this year for levels at Montreal Harbour continued through the month of October.

Below-average water supplies to Lake Superior with above-average lake outflow in October caused the lake to fall 9 cm, when on average (1918–2015) Lake Superior falls 3 cm throughout the month. This decline in Superior's level is the eighth largest on record. Lake Michigan–Huron fell 8 cm in October, slightly more than the average

decline of 7 cm. Similar to what was seen in September, the above-average inflow from Lake Superior in October was unable to offset the low October water supply from the lake basin. Lake Erie's level saw an average rate of fall over October of 10 cm. Lake Ontario declined only 9 cm, considerably less than its average October decline of 12 cm, due to well above average precipitation in the basin.

Beginning-of-November Lake Levels

Lake Superior's beginning-of-November level was 13 cm above average (1918–2015), 4 cm above last year's, but lower than the level at the same time in 2014. The Lake Superior 2014 beginning-of-November level was the highest it had been at this time of year since 1996. Lake Michigan–Huron's beginning-of-November level was 25 cm above average, 9 cm higher than last year and the highest it has been since 1997. Lake Erie was 28 cm above average at the

beginning of November, 3 cm higher than the same time last year, and the highest it has been at this time of year since 1997. Lake Ontario's level at the start of November was 5 cm below average and 11 cm below this time last year, but has been this low as recently as 2012. At the beginning of November, all of the lakes were at least 31 cm above their chart datum level. For more information on chart datum see the [July 2016 edition of LEVELnews](#).

Lake Level Outlook

Relative to their beginning-of-month levels, and assuming average water supply conditions, all the lakes are predicted to continue their seasonal decline through the month of November. 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.

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October Precipitation over the Great Lakes*

Great Lakes Basin	106%	Lake Erie	93%
Lake Superior	107% (including Lake St. Clair)		
Lake Michigan–Huron	101%	Lake Ontario	136%

October Outflows from the Great Lakes*

Lake Superior	122%	Lake Erie	106%
Lake Michigan–Huron	107%	Lake Ontario	100%

*As a percentage of the long-term October average.

NOTE: These figures are preliminary.