



LEVELnews

Great Lakes — St. Lawrence River Water Levels

Water Supplies Vary Across Great Lakes

September brought varied water supplies across the Great Lakes due to precipitation patterns across the basin. Lakes Superior and Erie received above average water supplies, while Lakes Michigan–Huron and Ontario received below average supplies. The results of this variation saw Lakes Superior and Michigan–Huron levels remain above those seen last year at this time, and Lakes Erie and Ontario below those from last year, similar to August's level patterns.

- The monthly mean water level of Lake Superior was 17 cm above its period-of-record (1918–2015) average in September and 1 cm higher than September 2015.
- Lake Michigan–Huron's mean level in September was 28 cm above average and 8 cm higher than the previous September level.
- Lake Erie's mean monthly level was 23 cm above average and 11 cm lower than last September.

- Lake Ontario was 4 cm below its September average and 21 cm lower than the same time last year.

- The variable conditions in the Great Lakes extended into the St. Lawrence River basin with levels at Montreal Harbour fluctuating through the month with dry spells interspersed with several downpours. However levels continued to be below average due to the previous dry conditions.

The above-average water supplies to Lake Superior more

Great Lakes Water Level Information

Lake	September 2016 Monthly Mean Level		Beginning-of-October 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	1 cm above	19 cm above	4 cm above
Michigan–Huron	28 cm above	8 cm above	26 cm above	6 cm above
St. Clair	33 cm above	1 cm below	44 cm above	2 cm above
Erie	23 cm above	11 cm below	28 cm above	6 cm below
Ontario	4 cm below	21 cm below	8 cm below	20 cm below

than offset the above-average lake outflow in September causing the lake to rise 1 cm, when on average (1918–2015) Lake Superior falls 2 cm in September. This is contrary to the summer months where wet supplies were removed from the lake due to the higher than average outflow. Lake Michigan–Huron fell 8 cm in September, slightly more than the average decline of 6 cm, with the above-average inflow from Lake Superior unable to offset the low water supply from the lake basin. Lake Erie's level fell only 5 cm, compared to its 9 cm average fall for

September, due largely to the record-setting rain storm in the west end of the basin in late September. The dry conditions seen in Lake Ontario for much of the summer returned again in September resulting in the lake declining 20 cm, considerably more than its average decline of 14 cm.

Beginning-of-October Lake Levels

Lake Superior's beginning-of-October level was 19 cm above average (1918–2015), 4 cm above last year's and the highest it has been since 1996. Lake Michigan–Huron's beginning-of-October level was 26 cm above average, 6 cm higher than last year and the highest it has been since 1997. Lake Erie was 28 cm above average at the beginning of October, but 6 cm lower than the same time last year. Lake Ontario's level at the start of October was 8 cm below average and 20 cm below this time last year, but has been this low as recently as 2012. At the beginning of

September, all of the lakes were at least 40 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 fall decline as summer draws to a close. 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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September Precipitation over the Great Lakes*

Great Lakes Basin	101%	Lake Erie	123%
Lake Superior	109%	(including Lake St. Clair)	
Lake Michigan–Huron	99%	Lake Ontario	65%

September Outflows from the Great Lakes*

Lake Superior	112%	Lake Erie	105%
Lake Michigan–Huron	107%	Lake Ontario	104%

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