



# **LEVEL**news

### Great Lakes — St. Lawrence River Water Levels

### Superior Wet, Rest of Lakes Dry

Lake Superior saw a very wet June, while all the other lakes saw dry conditions continue, resulting in Superior water levels rising much more than average while Michigan—Huron's rise was below average and Erie and Ontario's levels declined.

- The monthly mean water level of Lake Superior was 17 cm above its period-ofrecord (1918–2015) average in June and 2 cm lower than June 2015.
- Lake Michigan—Huron's mean level in June was 30 cm above average and 16 cm higher than last year's June level.
- Lake Erie's mean monthly level was 28 cm above average and 8 cm higher than June 2015.
- Lake Ontario was 3 cm below its June average and the same level as last year.
- The dry conditions from the Great Lakes once again extended into the St. Lawrence

River basin where the levels near Montreal fell even further below average in June.

The wet conditions in Lake Superior caused the lake to rise 13 cm over the month of June, considerably more than its average (1918–2015) rise of 8 cm. Lake Michigan–Huron only rose 1 cm in June, compared to its average rise of 6 cm. Lake Erie's level fell 7 cm in June when on average it rises 2 cm. Lake Ontario fell 5 cm in June, when on average it declines only 1 cm.

Great Lakes Water Level Information				
Lake	June 2016 Monthly Mean Level		Beginning-of-July 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	2 cm below	18 cm above	1 cm below
Michigan–Huron	30 cm above	16 cm above	28 cm above	12 cm above
St. Clair	34 cm above	7 cm above	34 cm above	9 cm below
Erie	28 cm above	8 cm above	24 cm above	14 cm below
Ontario	3 cm below	same	5 cm below	21 cm below



# Beginning-of-July Lake Levels

Lake Superior's beginningof-July level was 18 cm above average (1918–2015) and 1 cm below last year's. Lake Michigan-Huron's beginning-of-July level was 28 cm above average, 12 cm higher than last year and the highest it has been since 1998. Lake Erie was 24 cm above average at the beginning of July but 14 cm lower than the same time last vear. Lake Ontario's level at the start of July was 5 cm below average and 21 cm below this time last year.

#### FOR MORE INFORMATION:

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## Chart Datum on the Great Lakes

At times you may hear the Great Lakes levels referrenced to chart datum. A chart datum is a horizontal plane used to refer current lake levels to in order to provide more information on the depth of water for safe boat navigation on the lakes. The chart datum used on navigation charts for the Great Lakes is a low-water level set from recorded lake levels for each lake so that lake levels are expected to be above the chart datum 95% of the time. At the beginning of July all of the Great Lakes levels were at least 46 cm above chart datum level. Nautical charts reference the bottom of the lake to the chart datum, so for instance, if a location on the nautical chart indicates that the bottom of the lake is 1 m below chart datum, then using July 1 water levels. you can tell that the depth of water will be at least 1.46 m at that location. For more information on chart datum you can refer to the

Fisheries and Oceans
Canada web page on
vertical datums at:
www.tides.gc.ca/eng/info/
verticaldatums and the chart
datum for each of the Great
Lakes is given in Canadian
Hydrographic Service's
monthly water levels bulletin
at: tides-marees.gc.ca/
C&A/bulletin-eng.html.

#### **Summer Level Outlook**

Relative to their beginningof-month levels, and assuming average water supply conditions. Lake Superior is expected to continue its seasonal rise during July, Michigan-Huron is expected to stay at about the same level as it reaches its seasonal peak for the year, and Lakes Erie and Ontario are expected to decline through July. 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.

### June Precipitation over the Great Lakes\*

Great Lakes Basin 83% Lake Erie 70%
Lake Superior 129% (including Lake St. Clair)
Lake Michigan-Huron 65% Lake Ontario 60%

#### June Outflows from the Great Lakes\*

Lake Superior 119% Lake Erie 109% Lake Michigan-Huron 109% Lake Ontario 103%

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