



LEVELnews

Great Lakes – St. Lawrence River Water Levels

Wet Weather Experienced Basin-wide During April

The old saying says April showers bring May flowers, but this year the April rain also resulted in above-average water supplies and larger-than-average increases in the water levels to each of the Great Lakes and Lake St. Clair during the month.

Record or near-record high April precipitation over the basins of lakes Michigan–Huron, Erie and Ontario caused the water supplies to those lakes to be well above

their respective April long-term averages. More moderate water supplies, but still above average, occurred in the Lake Superior basin in April.

Lake Superior's level rose by 10 cm this April, compared to its average April rise of 8 cm. In comparison, the level of Lakes Michigan–Huron rose by 20 cm in April, which is almost double its average April rise of 11 cm. Lake St. Clair's level rose by 29 cm last month, almost three times its average

April rise of 10 cm. Lake Erie's level rose by 26 cm during April, double its average increase of 13 cm for the month. Lake Ontario's level also rose by much more than average, rising 31 cm compared to the average April rise of 20 cm.

The levels of lakes Superior and Michigan–Huron remain below their respective 1918–2010 period-of-record average levels. However, the levels of lakes St. Clair, Erie and

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Great Lakes Water Level Information				
Lake	April 2011 Monthly Mean Level		Beginning-of-May 2011 Level	
	Compared to Monthly Average (1918–2010)	Compared to One Year Ago	Compared to Beginning-of-Month Average (1918–2010)	Compared to One Year Ago
Superior	35 cm below	17 cm below	35 cm below	10 cm below
Michigan–Huron	48 cm below	20 cm below	40 cm below	6 cm below
St. Clair	15 cm below	1 cm below	1 cm above	17 cm above
Erie	2 cm below	11 cm above	9 cm above	24 cm above
Ontario	3 cm below	19 cm above	8 cm above	40 cm above

Ontario rose above their averages by end of April. Similarly, the levels of lakes Superior and Michigan–Huron are lower than they were at the same time last year, while levels on lakes St. Clair, Erie and Ontario are higher than they were one year ago. Since 1918, there have been only two years with a lower beginning-of-May level on Lake Superior. In contrast, the level of Lakes Michigan–Huron has been lower 17 times at this time of year since 1918.

At the beginning of May, the level of Lake Superior was 24 cm below its chart datum level, while the level of Lakes Michigan–Huron was 4 cm above its chart datum level. Levels on the downstream

lakes are now well above their chart datum levels, in the range of 67 to 86 cm.

With the commercial navigation season under way, there is also public interest at this time in the conditions in Montreal Harbour. Data from the harbour appears in the Canadian Hydrographic Service's monthly water levels bulletin, along with data for the Great Lakes and Lake St. Clair.

The monthly mean level at Montreal Harbour was 7.21 m in April, which was 48 cm higher than its monthly level in March. The April mean level was 25 cm below the harbour's 1867–2010 period-of-record average level for April, but 105 cm higher than the monthly mean level of April 2010. The harbour's daily mean levels during April varied within a range from 6.35 m (on April 1) to a high of 7.91 m (on April 30).

Water Levels Forecast

With average water supply conditions, the levels of all of the lakes are expected to continue their seasonal rise during May, which is typical at this time of year. The most probable supplies forecast indicates that the Montreal Harbour's monthly mean level will be near average for May.

For a complete range of probable water levels over the next six months on each of the Great Lakes, on Lake St. Clair, and at Montreal Harbour, please refer to the April 2011 edition of the Canadian Hydrographic Service's monthly water levels bulletin, found at:

www.waterlevels.gc.ca/C&A/tidal_e.html

FOR MORE INFORMATION:

Chuck Southam (Editor)
Boundary Water Issues Unit
Environment Canada
P.O. Box 5050
Burlington ON L7R 4A6
Tel.: 905-336-4955
Fax: 905-336-8901
Email: water.levels@ec.gc.ca

David Fay
Great Lakes—St. Lawrence
Regulation Office
111 Water Street East
Cornwall ON K6H 6S2
Tel.: 613-938-5725

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ISSN 1925-5713

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April Precipitation over the Great Lakes*

Great Lakes Basin	196%	Lake Erie	184%
Lake Superior	180%	(including Lake St. Clair)	
Lakes Michigan–Huron	209%	Lake Ontario	186%

April Outflows from the Great Lakes*

Lake Superior	76%	Lake Erie	101%
Lake Huron	91%	Lake Ontario	103%

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

NOTE: These figures are preliminary.