



LEVELnews

Great Lakes – St. Lawrence River Water Levels

Water Levels Fall on All Lakes Except Superior During April

Water levels on the Great Lakes typically increase several centimetres during April in response to spring rains and runoff. However, this April, the level of Lake Superior increased much less than average and the levels of the remaining lakes fell instead of rising. As indicated in the water level information table provided below, the levels of lakes Superior, Michigan–Huron and Ontario are all below their respective long-term averages, while the

level of Lake Erie began May just 1 cm above its beginning-of-May average level. The level of Lake Superior remains higher than it was a year ago, while levels of the other Great Lakes are now lower than they were a year ago.

- Lake Superior: The level of Lake Superior increased by 3 cm, 5 cm less than its average April increase of 8 cm. Mild weather in March resulted in an early snowmelt over the Lake Superior

drainage basin this year. The runoff from the snowmelt helped fuel an early start to Lake Superior’s annual seasonal rise, but also resulted in less runoff to the lake during April. So, even though the lake’s basin received above-average precipitation and the lake’s outflow was below average during the month, the reduced runoff outweighed those factors and led to the lake’s smaller-than-average increase.

(continued on next page)

Great Lakes Water Level Information				
Lake	April 2012 Monthly Mean Level		Beginning-of-May 2012 Level	
	Compared to Monthly Average (1918–2011)	Compared to One Year Ago	Compared to Beginning-of-Month Average (1918–2011)	Compared to One Year Ago
Superior	26 cm below	9 cm above	30 cm below	5 cm above
Michigan–Huron	36 cm below	12 cm above	41 cm below	2 cm below
St. Clair	5 cm below	10 cm above	9 cm below	10 cm below
Erie	9 cm above	11 cm above	1 cm above	6 cm below
Ontario	4 cm above	7 cm above	7 cm below	15 cm below

- **Lakes Michigan–Huron:** The level of Lakes Michigan–Huron fell by 2 cm during April, instead of the typical increase of 11 cm during April. However, an early snowmelt over its basin resulted in a larger-than-average increase in its March level—as was the case with Lake Superior—and left very little snow to generate runoff during April. The lack of runoff from snowmelt, in combination with below-average precipitation, caused the lower level for Lakes Michigan–Huron despite its below-average outflow during the month.

- **Lake Erie:** The level of Lake Erie fell 8 cm in April, instead of rising as it typically

does during the month. On average, the level of Lake Erie increases by 13 cm during April. On a larger scale, the lake’s average seasonal rise during the months of February, March and April combined is 29 cm. However, this year Lake Erie’s level actually fell by 12 cm over these three months. This decline was caused by the combined impact of below-average water supplies from the lake’s local basin, below-average inflows from upstream via the Detroit River, and above-average outflows through the Niagara River.

- **Lake Ontario:** The level of Lake Ontario fell by 7 cm during April. On average, the level of Lake Ontario increases by 20 cm during April. As with Lake Erie, the changes in Lake Ontario’s water levels over the past few months have not followed the typical seasonal pattern. On average, the level of Lake Ontario increases 5 cm during January, 3 cm during February, and 15 and 20 cm during March and April, respectively, as it experiences its annual seasonal rise. However, this year the lake’s level increased by 26 cm

during January in response to very wet weather conditions. The lake’s level increased by another 2 cm in February, but fell by 1 cm during March and by 7 cm more in April as the lake’s outflow exceeded inflow.

Six-Month Forecast

For a graphical representation of recent and forecasted water levels on each of the Great Lakes and on Lake St. Clair, compared to their 1918–2011 period-of-record monthly averages and extreme levels, please refer to the April 2012 edition of the Canadian Hydrographic Service’s monthly water levels bulletin at: www.waterlevels.gc.ca/C&A/tidal_e.html

FOR MORE INFORMATION:

Chuck Southam (Editor)
Boundary Water Issues Unit
MSC – Operations Ontario
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
MSC – Operations Ontario
Environment Canada
111 Water Street East
Cornwall ON K6H 6S2
Tel.: 613-938-5725

For information regarding reproduction rights, please contact Public Works and Government Services Canada at 613-996-6886 or at droitdauteur.copyright@tpsgc-pwgsc.ca
Photos: © Environment Canada – 2011
© Her Majesty the Queen in Right of Canada, represented by the Minister of the Environment, 2012

ISSN 1925-5713
Aussi disponible en français

April Precipitation over the Great Lakes*

Great Lakes Basin	77%	Lake Erie	58%
Lake Superior	109%	(including Lake St. Clair)	
Lakes Michigan–Huron	71%	Lake Ontario	73%

April Outflows from the Great Lakes*

Lake Superior	81%	Lake Erie	106%
Lakes Michigan–Huron	94%	Lake Ontario	109%

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