



LEVELnews

Great Lakes – St. Lawrence River Water Levels

Wet End of Month Leads to Increases in Erie and St. Clair Levels

Up until the last few days of last month, it was looking like the November 2011 changes on lakes Erie and St. Clair would be pretty close to average. The levels on both lakes fell gradually as expected during the first three weeks of the month. However, heavy rainfall and basin runoff during the last few days of November caused the levels of both lakes to rise sharply. As result, the levels of lakes Erie and St. Clair rose 6 and 25 cm, respectively, this

November instead of falling 5 and 7 cm, respectively, as they have on average during the 1918–2010 period of record. That time period is currently used for water level comparison purposes on the Great Lakes.

As indicated in the water level information table, Lake Erie's level began December some 35 cm above average and 44 cm higher than it was at the same time last year. Although still more than 50 cm lower than

the lake's period-of-record high for the beginning-of-December level, which was recorded in 1986, the lake's current above-average water level condition has raised concerns about the potential for local flooding and erosion damage. This could occur in the event of a storm packing strong, sustained winds from either the northeast or the southwest.

With respect to the water level changes experienced on the **(continued on next page)**

Great Lakes Water Level Information				
Lake	November 2011 Monthly Mean Level		Beginning-of-December 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	31 cm below	2 cm above	30 cm below	2 cm above
Michigan–Huron	32 cm below	11 cm above	32 cm below	12 cm above
St. Clair	5 cm above	23 cm above	38 cm above	58 cm above
Erie	22 cm above	33 cm above	35 cm above	44 cm above
Ontario	4 cm above	8 cm above	5 cm above	8 cm above

remaining Great Lakes during November, the levels of lakes Superior and Michigan–Huron experienced near-average and average declines, respectively, while Lake Ontario’s level fell by a little more than twice its average November amount.

Lake Superior’s level fell by 4 cm last month, which is 1 cm less than its average decline of 5 cm for the month of November. The level of Lakes Michigan–Huron also fell by 4 cm, which is equal to its period-of-record average November decline. On the other hand, Lake Ontario’s level fell by 7 cm during November 2011, 4 cm more than its average November decline of 3 cm.

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

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ISSN 1925-5713

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Ice Season

Environment Canada monitors ice conditions in five regions, including the Great Lakes and the St. Lawrence River. If you would like to track ice conditions throughout the winter, please visit the Canadian Ice Service website at: www.ice-glaces.ec.gc.ca

Click on the appropriate regional area on the map and you will find a number of ice information products. This includes Ice Charts (showing ice concentrations and stages of development), Ice Hazard Bulletins, Ice Forecasts and Ice Cover Graphs. Be sure to click on the “Ice Codes” button at the top of the Web page to learn more about the Egg Code and the Colour Codes used on the ice charts. The Egg Code (named for its oval shape) may look complicated, but after becoming familiar with its structure a great deal of information about ice conditions can be acquired in a short period of time.

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 1918–2010

period-of-record monthly averages, and their extreme high and low levels, please refer to the November 2011 edition of the Canadian Hydrographic Service’s monthly water levels bulletin at: www.waterlevels.gc.ca/C&A/tidal_e.html

November Precipitation over the Great Lakes*

Great Lakes Basin	109%	Lake Erie	185%
Lake Superior	60%	(including Lake St. Clair)	
Lakes Michigan–Huron	117%	Lake Ontario	95%

November Outflows from the Great Lakes*

Lake Superior	71%	Lake Erie	107%
Lakes Michigan–Huron	91%	Lake Ontario	112%

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

NOTE: These figures are preliminary.