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LEVELnews

Great Lakes — St. Lawrence River Water Levels

Michigan-Huron Sets New Record Low Monthly Level

Although levels are still preliminary and need to be verified, it appears that Lakes Michigan—Huron has set a new record low level for the month of December. The lakes' December 2012 monthly mean level was 1 cm lower than the old record low for the month set in 1964. The lakes' beginning-of-January 2013 level matched the lakes' 1918—2011 period-of-record low for the beginning of January set in 1965.

- Lake Superior's level fell 5 cm during December, 3 cm less than its 1918-2011 periodof-record average December decline of 8 cm.
- Lakes Michigan

 Huron's level fell by 2 cm during

 December, half of its average decline of 4 cm for the month of December.
- Lake Erie's level fell by
 1 cm during December instead of increasing as it typically does during the month. Onaverage, Lake Erie's water

level has increased 1 cm during December over the 1918-2011 period of recorded.

- Lake Ontario's level increased by 9 cm during December, much more than its average December increase of 1 cm.
- Montreal Harbour's monthly mean level in December was 12 cm higher than the harbour's monthly mean level in November and6 cm above its period-of-(continued on next page)

Great Lakes Water Level Information				
Lake	December 2012 Monthly Mean Level		Beginning-of-January 2013 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	34 cm below	3 cm below	34 cm below	3 cm below
Michigan–Huron	72 cm below	43 cm below	71 cm below	41 cm below
St. Clair	37 cm below	54 cm below	39 cm below	52 cm below
Erie	17 cm below	58 cm below	19 cm below	60 cm below
Ontario	25 cm below	34 cm below	21 cm below	37 cm below



record low for December set in 2007. The harbour's December level was 92 cm below average and 68 cm lower than last year.

Water Level Forecast

Water levels are expected to decline on each of the lakes during January, with the exception of Lake Ontario, which is expected to rise. Montreal Harbour's monthly mean level in January is expected to rise compared to its December level.

For a graphical representation of recent and forecasted water levels on each of the Great Lakes, Lake St. Clair and Montreal Harbor, compared to their respective period-of-

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record monthly averages and extreme levels, please refer to the December 2012 edition of the Canadian Hydrographic Service's monthly water levels bulletin at: www.waterlevels.gc.ca/C&A/tidal_e.html

Period of Record

Although it is now 2013, the period of record used for comparison purposes in the bulletin and LEVELnews is still 1918–2011, and will likely remain so for a couple more months. The 2012 water level data needs to be verified and accepted as correct before the period-of-record statistics used for water level purposes can be updated to 1918–2012.

High and Dry in the East

The higher than normal temperatures and a lack of rainfall in Eastern Canada was selected as one of Canada's top ten weather stories for 2012. The warm, dry weather meant a great summer for most outdoor enthusiasts but trouble for some crops and water systems. Although not record dry (of 65 years, 13 summers were drier across the Great Lakes and the St. Lawrence River basin), the

lack of rain and excessive warmth was notable and has contributed to the decline in levels experienced basin-wide. For the full story on this and the other nine top Canadian weather stories for 2012 please visit Environment Canada's website at www.ec.gc.ca, click on the "Weather and Meteorology" link under Topics, and then on the "Top Ten Weather Stories for 2012" link in the Highlights section on the Weather and Meteorology webpage.

December Precipitation over the Great Lakes*

Great Lakes Basin 92% Lake Erie 98%
Lake Superior 58% (including Lake St. Clair)
Lakes Michigan-Huron 90% Lake Ontario 143%

December Outflows from the Great Lakes*

Lake Superior 77% Lake Erie 87% Lakes Michigan-Huron 86% Lake Ontario 88%

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