# LEVEL news



Great Lakes - St. Lawrence River Water Levels

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## **Below-Average Water Supplies Continue for Most of the Great Lakes**

Water supplies were below average to each of the Great Lakes, except Lake Erie, during May. In the case of lakes Superior, Michigan-Huron and Ontario, May was the fifth, seventh and second consecutive month, respectively, of below-average supplies. The supply to the Lake Superior basin was particularly low, setting a new provisional record low for May. This was the second month in a row of record low supplies to Lake Superior.

Daily water levels increased by 2 cm on Lake Superior during May 2010, while on average it has risen by 10 cm during the month of May. The level of lakes Michigan-Huron rose by 4 cm this May, which is half of its average May rise of 8 cm. Lake Ontario's level did increase by 9 cm during May 2010, which is close to its average rise of 8 cm for the month. This was due primarily to the lower-than-average outflows from Lake Ontario, because the total water supply to the lake in May was lower than average.

The above-average rainfall that fell directly on Lake Erie's surface during May, combined with the related runoff from its basin, more than offset the lower-than-average inflow Lake Erie received from the upper lakes. As a result, Lake Erie's level rose by 13 cm last month, more than twice its average rise during the month of May of 5 cm.

As indicated in the water level information table provided below, the levels of all of the Great Lakes are below their respective long-term (1918-2009) averages for this time of year and lower than they were one year ago. The level of Lake Ontario has not been this low at the beginning of June since 1999. The beginning-of-June levels for Lake Superior's and Lakes Michigan-Huron were lower than they are now as recently as 2007 and 2008, respectively. Although Lake Erie's beginning-of-June level was only 7 cm below average. it was 19 cm lower than it was at the same time last year and a few centimetres lower than it was in 2007 and 2008. The (continued on next page)

Great Lakes Water Level Information				
	May 2010 Monthly Mean Level		Beginning-of-June 2010 Level	
Lake	Compared to Monthly Average (1918-2009)	Compared to One Year Ago	Compared to Beginning-of-Month Average (1918-2009)	Compared to One Year Ago
Superior	29 cm below	16 cm below	33 cm below	20 cm below
Michigan-Huron	36 cm below	21 cm below	38 cm below	24 cm below
St. Clair	14 cm below	22 cm below	13 cm below	22 cm below
Erie	9 cm below	25 cm below	7 cm below	19 cm below
Ontario	31 cm below	48 cm below	31 cm below	47 cm below

last time Lake Erie began June at approximately its present level was in 2006, and it was 10 to 16 cm lower in 2000, 2001 and 2003.

The monthly mean level at Montréal Harbour was 5.40 m in May. This is the lowest May mean level since modern records began there in 1967. May's level was 76 cm lower than the monthly level in April. The May mean level was 181 cm (or, about 6 feet) below the 1967-2009 average for May, and was 183 cm below the monthly level of May 2009. The daily mean levels last month varied from a high of 5.83 m on May 1 to a low of 5.20 m on May 25. Ottawa River outflows were below average throughout May and appear to have set a new record low monthly mean (at least since 1963) for the

#### FOR MORE INFORMATION:

Chuck Southam
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
E-mail: 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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**Editor, Chuck Southam** 

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month. This is the second consecutive month of record low monthly flows from the Ottawa River.

#### **Water Level Forecast**

With average water supply conditions, the levels of lakes Superior, Michigan-Huron and Ontario are all expected to rise by few centimetres in June if average water supply conditions occur. Levels for Lake St. Clair and Lake Erie are expected to be stable or fall slightly in June with average water supply conditions. The monthly mean level at Montréal Harbour is expected to continue to be below chart datum and set a new record low for June. Large. widespread amounts of rainfall leading to increases in both the Ottawa River and Lake Ontario outflows would be required to raise the Montréal Harbour level to chart datum in June.

For a complete range of forecasted water levels over the next six months on each of the Great Lakes, on Lake St. Clair, and at Montréal Harbour, please refer to the May 2010 edition of the Canadian Hydrographic Service's monthly water level bulletin found at:

http://www.waterlevels.gc.ca/C&A/tidal\_e.html.

## May Precipitation over the Great Lakes \*

Great Lakes Basin 90% Lake Erie 144%
Lake Superior 68% Including Lake St. Clair)
Lakes Michigan-Huron 88% Lake Ontario 71%

### May Outflows from the Great Lakes \*

Lake Superior 74% Lake Erie 98% Lake Huron 94% Lake Ontario 86%

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