

LEVELnews

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Dry Conditions Persist

Great Lakes Precipitation Below Average in January

While Lake Ontario's basin received slightly more than average precipitation during January, precipitation over the remainder of the Great Lakes basin was below average. Preliminary numbers indicate that the Great Lakes basin received just 82% of its long-term average January precipitation.

Water levels on Lakes Superior, Michigan-Huron and St. Clair continued to decline as they normally do from December through January. During January, Lake Erie declined by a couple of centimetres, whereas, Lake Ontario rose by about the same amount.

A small but sharp drop in the level of Lake St. Clair occurred in late January, due to reduced inflow from Lake Huron caused by ice in the St. Clair River. Ice formation in the St. Lawrence River was a bit quicker than normal this winter, thanks to cold temperatures and low river flows during mid January.

At the beginning of February, Lake Superior was about 21 cm below its seasonal average. Lakes Michigan-Huron were about 46 cm below average, 12 cm below chart datum. Lakes St. Clair, Erie and Ontario were 31, 20 and 12 cm below their seasonal averages,

respectively. Montréal Harbour's level rose slightly during January due to a combination of increased local runoff and the effect of river ice just downstream of Montréal.

Unless supply conditions turn around, the levels of all of the lakes are expected to remain below average over the next six months and may be lower than those experienced in 1999. If wet conditions return to the basin, Lakes Superior, St. Clair, Erie and Ontario could recover to near average levels. Lakes Michigan-Huron; however, would still remain below
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LEVELnews on the World Wide Web

Around the 10th of each month, electronic versions of both LEVELnews and the Monthly Water Level Bulletin are posted on the World Wide Web. These publications can be accessed at:

<http://www.cciw.ca/glimr/data/level-news/intro.html> and,
<http://chswwww.bur.dfo.ca/danp/wlgraphs.html>, respectively.

For additional Great Lakes information be sure to visit the **OUR GREAT LAKES** site at:

<http://www.cciw.ca/glimr/intro-e.html>



average even if high water supplies are received for the rest of the winter.

1999 in Review

Great Lakes water levels in 1999 were below average as a result of the low water supplies to the lakes which began in 1997 on the upper lakes. The last time levels were this low was in the mid 1960s. Some moderate water level rebounds occurred on Lake Superior and Lake Ontario but they, like the other lakes, remained below average at year end.

Montréal Harbour levels experienced record low levels during the summer months, due to a combination of very low flows from Lake Ontario, the Ottawa River and other local tributaries. Rainfall during the last three months of 1999 raised the harbour's level closer to seasonal

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January Precipitation Over Great Lakes

As a percentage of the long-term January average:

Great Lakes Basin	82%	Lake Erie	81%
Lake Superior	95%	(including Lake St. Clair)	
Lakes Michigan-Huron	86%	Lake Ontario	102%

NOTE: These figures are preliminary

average in December.

Preliminary data show that in 1999 the region experienced its second warmest year on record. The ice season for the winter of 1998-99 was very short, due to mild air temperatures and the absence of severe cold weather systems. The winter of 1999-2000 started out the same way with warm weather and water conditions extending into December 1999. At the end of 1999, the shores of the Great Lakes and the St. Lawrence River remained virtually ice-free.

Problems associated with low water levels in 1999 included reduced hydropower generation, reduced water depths for commercial navigation, unusable recreational boating docks and ramps and reduced channel drafts on the lakes and rivers for all boaters. It is assumed there were additional costs related to water withdrawal for some

domestic and industrial users.

The below-average water levels and absence of storms in 1999 resulted in reduced flood and erosion damage on the shores of the Great Lakes. Occasional low water levels as experienced in 1999 are also considered beneficial in promoting diversity in plants and wildlife in Great Lakes wetlands.

Given the water level conditions at the end of 1999, the risk of serious shoreline flood and erosion damage in 2000 should remain very low.

January Outflows From Great Lakes

As a percentage of the long-term January average:

Lake Superior	97%	Lake Erie	97%
Lake Huron	90%	Lake Ontario	94%

NOTE: These figures are preliminary