

LEVEL *news*



Great Lakes - St. Lawrence River Water Levels

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January's Cold Temperatures result in Increased Evaporation, Declining Levels, and More Ice

After a month of winter weather the unseasonably mild temperatures of November and December are all but a distant memory. The persistent cold temperatures experienced during January led to significant evaporation of water off the lakes, resulting in lake-effect snow and a return to declining water levels on lakes Michigan-Huron and Erie. The extent of ice cover also increased significantly during the month.

During January, lakes Michigan-Huron fell 4 cm,

just 1 cm more than the lakes' 1918-2002 average decline for this period of time. Daily water levels on Lake Erie, however, fell 8 cm during January, 7 cm more than the average amount.

As a result, only 1 cm of the 15 cm improvement in water levels gained relative to average conditions during November and December on Lakes Michigan Huron was lost during January. On the other hand, most of the improvement seen recently in daily levels on Lake Erie was lost during January.

Lake St. Clair has been experiencing short-term water level fluctuations over the past few weeks due to ice conditions in the Detroit and St. Clair River system. These short-term fluctuations could persist as long as the cold weather and the current ice conditions in the rivers continue.

Ice Cover – What a Difference a Month Makes

One month ago, ice covered only shallow bays and inlets around the Great Lakes. Ice
(continued on next page)

Great Lakes Water Level Information

Lake	January 2004 Monthly Mean Level		Beginning of February 2004 Level	
	Compared to Monthly Average (1918-2002)	Compared to One Year Ago	Compared to Beginning-of-Month Average (1918-2002)	Compared to One Year Ago
Superior	21 cm below	2 cm below	21 cm below	same
Michigan-Huron	47 cm below	5 cm above	46 cm below	8 cm above
St. Clair	18 cm below	8 cm above	14 cm below	7 cm above
Erie	4 cm below	7 cm above	10 cm below	12 cm above
Ontario	28 cm above	50 cm above	24 cm above	52 cm above

conditions have changed significantly due to the cold weather experienced during January. Large areas of ice in varying concentrations and stages of development can be found on each of the lakes. Lakes St. Clair and Erie and Georgian Bay were completely ice covered by the beginning of February.

Please visit the Canadian Ice Service website at: <http://ice-glaces.ec.gc.ca/> for the latest ice conditions on the Great Lakes.

At the Canadian Ice Service site you will find, the Daily Ice Hazard Bulletin, Ice Charts showing ice concentrations and the stages of development, and a 30-day Ice forecast Bulletin.

Be sure to click on the "Ice Codes" button at the top of

January Precipitation over the Great Lakes As a percentage of the long-term January average:

Great Lakes Basin	95%	Lake Erie	98%
Lake Superior	88%	(including Lake St. Clair)	
Lakes Michigan-Huron	100%	Lake Ontario	85%

NOTE: These figures are preliminary

the page to learn more about "the Egg Code" and Colour Codes used on the ice charts.

The Egg Code

In the early 1980s, the Canadian Ice Service upgraded the way it reports on ice conditions. In co-operation with other countries, Canada developed a reporting standard for the World Meteorological Organization (WMO).

This standard is known as "the Egg Code", named for its oval shape. This oval device is an efficient means of delivering vital information on ice conditions to mariners and other users.

The Egg Code may look complicated, but once you become familiar with its organization you will be able to gain a great deal of useful information about ice conditions in a short period of time.

Environment Canada's Green Lane and "Our Great Lakes" -- Your Source for the Latest on the Environment

Take some time to explore the Ontario Green Lane. The "Our Great Lakes" section provides a range of information on the Great Lakes and the programs in place to clean up, protect and conserve them. Go to www.on.ec.gc.ca and click on the "Great Lakes" button in the box at the top of the page.

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January Outflows from the Great Lakes As a percentage of the long-term January average:

Lake Superior	87%	Lake Erie	103%
Lake Huron	98%	Lake Ontario	102%

NOTE: These figures are preliminary