

## Information

Recorded monthly mean water levels in this bulletin are derived from a representative network of water level gages on each lake (see cover map). Providers of these data are the U.S. Department of Commerce, NOAA, National Ocean Service, and Integrated Science Data Management, Department of Fisheries and Oceans, Canada. The Detroit District, Corps of Engineers and Environment and Climate Change Canada derive historic and projected lake levels under the auspices of the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data.

This bulletin is produced monthly as a public service. The Corps also, on a weekly basis publishes online the *Great Lakes, Connecting Channels and St. Lawrence River Water Levels and Depths*, which provides a forecast of depths in the connecting rivers between the Great Lakes and the International Section of the St. Lawrence River. This *Monthly Bulletin of the Lake Levels for the Great Lakes* may be obtained free of charge by writing to the address shown on the front cover, by calling (313) 226-6441 or emailing [hphm@usace.army.mil](mailto:hphm@usace.army.mil). Notices of change of address should include the name of the publication. This information is available on the internet at <http://www.lre.usace.army.mil/Missions/GreatLakesInformation.aspx>.

### Great Lakes Basin Hydrology January 2020

The trend of generally above average net basin supplies continued in the Great Lakes in January. Similar to December, temperatures were above normal across all of the Great Lakes in January. As a result, more precipitation fell as rain instead of snow. Thus a higher fraction of overland precipitation contributed to runoff instead of being stored in snowpack. This phenomenon, in addition to increased snowmelt, contributed to considerably above normal runoff to all of the Great Lakes. Preliminary results suggest that evaporation was also below average on Lakes Superior, Michigan-Huron, and Ontario. According to provisional statistics, Lake Michigan-Huron experienced its 3<sup>rd</sup> highest Net Basin Supply (NBS) for the month of January since 1900, and Lake Ontario experienced its 4<sup>th</sup> highest January NBS. In addition, the connecting channel outflows of Lakes Michigan-Huron, St. Clair, Erie, and Ontario were record-highs for January, according to preliminary results.

Record-high monthly mean levels occurred on the Great Lakes in January 2020. Lakes Superior and Michigan-Huron surpassed their record-high monthly mean January levels dating back to 1918, the beginning of their period of record, while Lake St. Clair matched its record-high January level reached in 1986. Lake Superior is projected to continue its seasonal decline in February and March, while Lakes Michigan-Huron is expected to rise an inch, respectively. Lakes St. Clair, Erie, and Ontario began their seasonal rises in January, and their monthly mean levels are predicted to rise 2, 4, and 4 inches, respectively, from January to February.

PRECIPITATION (INCHES)								
BASIN	January				12-Month Comparison			
	2020	Average (1900-2017)	Diff.	% of Average	Last 12 months	Average (1900-2017)	Diff.	% of Average
Superior	1.75	1.94	-0.19	90	31.16	30.58	0.58	102
Michigan-Huron	1.84	2.14	-0.30	86	35.12	32.52	2.60	108
Erie	2.78	2.48	0.30	112	37.92	35.53	2.39	107
Ontario	2.20	2.73	-0.53	81	37.13	35.84	1.29	104
Great Lakes	1.98	2.20	-0.22	90	34.52	32.74	1.78	105

LAKE	January WATER SUPPLIES <sup>1</sup> (cfs)		January OUTFLOW <sup>2</sup> (cfs)	
	2020	Average (1900-2008)	2020	Average <sup>3</sup> (1900-2008)
Superior	16,000	-13,000	87,000	69,000
Michigan-Huron	198,000	60,000	250,000	161,000
Erie	83,000	29,000	268,000	196,000
Ontario	85,000	32,000	325,000	222,000

Notes: Values (excluding averages) are based on preliminary computations; cfs denotes cubic feet per second.

<sup>1</sup> Net basin supply is the net result of precipitation falling on the lake, runoff from precipitation falling on the land which flows to the lake, and evaporation from the lake. Negative net basin supply denotes evaporation exceeded runoff and precipitation. The net total supply can be found by adding the net basin supply and the outflow from the upstream lake.

<sup>2</sup> Does not include diversions.

<sup>3</sup> Lake Ontario average water supplies and average outflows are based on period of record 1900-2005