

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 hhpm@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 July 2020

According to preliminary estimates, precipitation in the Great Lakes watershed was just above average for July. Lakes Michigan-Huron and Ontario observations indicate above normal July precipitation, at 127% and 115% of average, respectively. Lake Superior was very close to its average (1900-2017) for the month of July at 101%. Lake Erie was the only basin which received below average precipitation, at 83% of its typical July value. Water supplies to Lakes Superior and Michigan-Huron were above average, likely a result of at or above average precipitation paired with enhanced runoff. Water supplies to Lake Erie were below average, which can be attributed to drier basin conditions overall. Water supplies to Lake Ontario were slightly below average, which was likely influenced by enhanced evaporation.

Outflows in July remained above average as a result of the high water level conditions. Preliminary estimates indicate that outflows through the St. Clair River and Detroit River were above their July record-high outflows. Record high monthly mean water levels continued on Lake Michigan-Huron this July, beating its previous July record by 2 inches. From June to July, Lake Superior rose around 2 inches, while Lake St. Clair rose less than an inch. Lake Michigan-Huron stayed at approximately the same monthly mean level, while Lake Erie began its decline dropping about 2 inches for its June monthly mean level. Lake Ontario continued to decline dropping about 4 inches from its mean June level.

PRECIPITATION (INCHES)								
BASIN	July				12-Month Comparison			
	2020	Average (1900-2017)	Diff.	% of Average	Last 12 months	Average (1900-2017)	Diff.	% of Average
Superior	3.31	3.27	0.04	101	28.44	30.59	-2.15	93
Michigan-Huron	3.86	3.03	0.83	127	34.28	32.52	1.76	105
Erie	2.81	3.39	-0.58	83	32.19	35.55	-3.36	91
Ontario	3.62	3.15	0.47	115	32.38	35.83	-3.45	90
Great Lakes	3.51	3.15	0.36	111	32.14	32.76	-0.62	98

LAKE	July WATER SUPPLIES ¹ (cfs)		July OUTFLOW ² (cfs)	
	2020	Average (1900-2008)	2020	Average ³ (1900-2008)
Superior	155,000	129,000	84,000	81,000
Michigan-Huron	175,000	128,000	256,000	195,000
Erie	-8,000	7,000	274,000	209,000
Ontario	17,000	24,000	319,000	261,000

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

¹ 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.

² Does not include diversions.

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