

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 <https://www.lre.usace.army.mil/Missions/GreatLakesInformation.aspx>.

Great Lakes Basin Hydrology July 2021

The Great Lakes basin on the whole received above average precipitation in July, at 125% of average. Lake Superior received 63% of its average July precipitation, while the other lakes received well above average precipitation. Lakes Michigan-Huron and Erie both received 144% of their respective average July precipitation amounts. Lake Ontario received over five inches, which was 176% of its July average amount. Similar to precipitation, runoff was predominantly below normal in the Superior basin, and above normal in the other lake basins. The last 12 months of precipitation for all lake basins range from 12% to 23% below average. Water supplies for July were above average on all lakes, except for Lake Superior. Also, outflows continue to be above average for all lakes.

From June to July, Lakes Superior remained near its June level. Lake Michigan-Huron rose 3 inches from June to July, while Lakes St. Clair, Erie and Ontario all rose 4 inches from June to July. The 6-month forecast projects that Lake Superior will continue its seasonal rise in to August and September before beginning its seasonal decline. Lakes Michigan-Huron, St. Clair, Erie, and Ontario are forecast to begin their seasonal declines within the next month. Lake Michigan-Huron finally observed a seasonal rise in July, after remaining nearly the same level since March.

PRECIPITATION (INCHES)								
BASIN	July				12-Month Comparison			
	2021	Average (1900-2017)	Diff.	% of Average	Last 12 months	Average (1900-2017)	Diff.	% of Average
Superior	2.07	3.27	-1.20	63	23.45	30.59	-7.14	77
Michigan-Huron	4.35	3.03	1.32	144	28.66	32.52	-3.86	88
Erie	4.89	3.39	1.50	144	30.77	35.55	-4.78	87
Ontario	5.55	3.15	2.40	176	31.05	35.83	-4.78	87
Great Lakes	3.93	3.15	0.78	125	27.67	32.76	-5.09	84

Lake	July WATER SUPPLIES ¹ (cfs)		July OUTFLOW ² (cfs)	
	2021	Average ³ (1900-2008)	2021	Average ³ (1900-2008)
Superior	77,000	127,000	84,000	81,000
Michigan-Huron	200,000	128,000	219,000	195,000
Erie	64,000	7,000	254,000	213,000
Ontario	50,000	23,000	276,000	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