

## 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* is available 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 <https://www.lre.usace.army.mil/Missions/GreatLakesInformation.aspx>.

### Great Lakes Basin Hydrology September 2021

Preliminary estimates for precipitation indicate that the Great Lakes basin received near average precipitation during the month of September. The Lake Superior basin received near average precipitation at 98% of average, while Lake Michigan-Huron received slightly below average precipitation, at 89% of average. Lakes Erie and Ontario experienced a wetter September, both receiving above average precipitation. However, over the last 12 months precipitation has been below average for all lake basins, ranging from 79% to 91% of average. Water supplies were below average on all lakes, except Lake Ontario, which was likely a result of increased evaporation during the month. Outflows remained above average for all lakes, except for Lake Superior's outflow that was below average.

From August to September, all the lakes experienced a decline in lake level. Lake Superior declined 1 inch, Lake Michigan-Huron declined by about 4 inches, Lake St. Clair dropped 3 inches, Lake Erie declined 5 inches, and Lake Ontario fell 2 inches. The 6-month forecast projects that all the lakes will continue their seasonal declines through the fall and into the early winter.

PRECIPITATION (INCHES)								
BASIN	September				12-Month Comparison			
	2021	Average (1900-2017)	Diff.	% of Average	Last 12 months	Average (1900-2017)	Diff.	% of Average
Superior	3.43	3.50	-0.07	98	24.02	30.59	-6.57	79
Michigan-Huron	3.05	3.43	-0.38	89	28.56	32.52	-3.96	88
Erie	4.30	3.23	1.07	133	32.39	35.55	-3.16	91
Ontario	4.22	3.27	0.95	129	32.70	35.83	-3.13	91
Great Lakes	3.47	3.39	0.08	102	28.24	32.76	-4.52	86

Lake	September WATER SUPPLIES <sup>1</sup> (cfs)		September OUTFLOW <sup>2</sup> (cfs)	
	2021	Average <sup>3</sup> (1900-2008)	2021	Average <sup>3</sup> (1900-2008)
Superior	13,000	70,000	75,000	82,000
Michigan-Huron	-40,000	26,000	223,000	193,000
Erie	-31,000	-18,000	242,000	204,000
Ontario	13,000	4,000	280,000	249,000

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