

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 June 2019

Preliminary estimates indicate the Great Lakes basin received above average precipitation in the month of June, its 3rd consecutive month of above average precipitation. Although Lake Superior received below average precipitation for June, all of the remaining lakes experienced precipitation ranging from 13% to 24% above average. Water supplies in June were well above average, except for Lake Superior. According to preliminary data, Lake Erie experienced its seventh highest June net basin supply since 1900, while Lake Ontario experienced its eighth highest. Outflows from all lakes continued to be substantially above average during the month of June, with preliminary estimates indicating that outflows through the St. Clair River, Detroit River, and Niagara River were all above their record high outflow for June.

In 2019, Lakes Superior, St. Clair, Erie, and Ontario experienced their highest June monthly mean water level dating back to 1918, the beginning of their period of record. Lake Michigan-Huron's monthly mean level was just shy of its record high June level by less than an inch. From May to June, the monthly mean levels of all the lakes rose, ranging between 3 to 8 inches, due to continued wet conditions in the basin. The current 6-month forecast indicates monthly mean water levels for July will meet or surpass record high July levels on all of the lakes, except Michigan-Huron.

PRECIPITATION (INCHES)								
BASIN	June				12-Month Comparison			
	2019	Average (1900-2016)	Diff.	% of Average	Average Last 12 Months	Average (1900-2016)	Diff.	% of Average
Superior	2.85	3.30	-0.45	86	29.72	30.58	-0.86	97
Michigan-Huron	3.59	3.18	0.41	113	34.84	32.55	2.29	107
Erie	4.33	3.50	0.83	124	37.96	35.62	2.34	107
Ontario	3.88	3.20	0.68	121	39.00	35.87	3.13	109
Great Lakes	3.54	3.25	0.29	109	34.25	32.77	1.48	105

LAKE	June WATER SUPPLIES ¹ (cfs)		June OUTFLOW ² (cfs)	
	2019	Average (1900-2008)	2019	Average ³ (1900-2008)
Superior	125,000	155,000	101,000	77,000
Michigan-Huron	306,000	204,000	246,000	192,000
Erie	79,000	31,000	283,000	216,000
Ontario	72,000	42,000	360,000	260,000

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