

Information

Recorded 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 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) 226-6442 or emailing 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 October 2017

According to preliminary estimates, basin-wide precipitation was well above normal for all of the Great Lakes. Lake Ontario received the most precipitation with estimates at 170% of its average October precipitation. Lake Michigan-Huron is estimated not far behind that at 161% of its average October precipitation. On the whole, the Great Lakes basin received 145% of average October precipitation. Over the last 12 months, the total rainfall has been just above average for the Great Lakes basin. Net basin supply was above average for all but Lake Erie. Lake outflows in October were above average for all lakes.

All of the lakes were above their October long-term average water levels. From September to October, Lake Superior rose about a half inch, but all other lakes' levels declined. Lake Michigan-Huron fell 2 inches, Lake St. Clair dropped 5 inches, Lake Erie declined by 4 inches, and Lake Ontario fell 9 inches from September to October. This October's levels were 5 to 7 inches above last year's levels for all but Lake Ontario, which was 13 inches above last year's October level. All of the lakes are below their record high levels. Lake Superior is 4 inches below its record high October level set in 1985. The other lakes are 14 to 25 inches below their record high October levels.

PRELIMINARY PRECIPITATION (INCHES)								
BASIN	October				12-Month Comparison			
	2017	Average (1900-2014)	Diff.	% of Average	Last 12 months	Average (1900-2014)	Diff.	% of Average
Superior	3.41	2.88	0.53	118	34.13	30.52	3.61	112
Michigan-Huron	4.74	2.94	1.80	161	33.54	32.57	2.97	109
Erie	3.05	2.84	0.21	107	35.11	35.65	-0.54	98
Ontario	5.34	3.15	2.19	170	41.25	35.87	5.38	115
Great Lakes	4.24	2.93	1.31	145	35.80	32.76	3.04	109

LAKE	October Net Basin Supplies ¹ (cfs)		October Outflows ² (cfs)	
	2017	Average (1900-2008)	2017	Average ³ (1900-2008)
Superior	116,000	40,000	111,000	80,000
Michigan-Huron	106,000	1,000	213,000	191,000
Erie	-29,000	-21,000	232,000	201,000
Ontario	25,000	7,000	295,000	243,000

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