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 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 Lake*s 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
November 2018

Preliminary estimates indicate that the Great Lakes basin received slightly below average precipitation in the month of November after a wetter than average October. Lakes Superior and Michigan-Huron were well below average at 72% and 84% of their respective November averages. Lakes Erie and Ontario made up the difference with 122% and 131% respectively of their average precipitation for November to bring the Great Lakes basin average precipitation to 93% of average for November. Water supplies throughout the Great Lakes basin were above average for November and were accompanied by higher than average outflows from each of the Great Lakes.

Mean water levels for the month of November remained above their long-term average for all lakes. Lake Superior held steady over the last month with a decline of less than inch while Lake Michigan-Huron declined 2 inches. Lake St. Clair declined about an inch while Lake Erie and Lake Ontario also held a nearly steady level from October to November. All of the lakes are usually in their seasonal decline over the last month but a wet October and start to November led to a slower decline than is typical. Lake Superior's November levels were an inch below last year while Michigan-Huron's were about the same as last November. Lake St. Clair and Lake Erie were 2 and 4 inches above their respective levels last November while Lake Ontario is 10 inches below its level of last November.

PRELIMINARY PRECIPITATION (INCHES)

BASIN	November				12-Month Comparison			
	2018	Average (1900-2016)	Diff.	% of Average	Average Last 12 Months	Average (1900-2016)	Diff.	% of Average
Superior	1.81	2.49	-0.68	73	27.72	30.58	-2.86	91
Michigan-Huron	2.34	2.76	-0.42	85	30.60	32.55	-1.95	94
Erie	3.49	2.85	0.64	122	35.08	35.62	-0.54	98
Ontario	4.12	3.14	0.98	131	34.26	35.87	-1.61	96
Great Lakes	2.55	2.74	-0.19	93	30.71	32.77	-2.06	94

LAKE	November WATER SUPPLIES[1] (cfs)		November OUTFLOW[2] (cfs)	
	2018	Average (1900-2008)	2018	Average[3] (1900-2008)
Superior	34,000	17,000	106,000	78,000
Michigan-Huron	53,000	40,000	219,000	190,000
Erie	25,000	-2,000	246,000	201,000
Ontario	52,000	20,000	281,000	239,000

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