

## Information

Recorded monthly mean water levels in this bulletin are results from a representative network of water level gages on each lake (see cover map). Providers of these data are U.S. Department of Commerce, NOAA, National Ocean Service, and Integrated Science Data Management, Department of Fisheries and Oceans, Canada. Detroit District, Corps of Engineers and Environment and Climate Change Canada derive historic and projected lake levels under auspices of Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data.

The Corps makes the bulletin 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 supplies a forecast of depths in connecting rivers between Great Lakes and International Section of St. Lawrence River. This *Monthly Bulletin of the Lake Levels for the Great Lakes* is available in full color on the internet at <https://www.lre.usace.army.mil/Missions/GreatLakesInformation.aspx>. For questions, email [hjpm@usace.army.mil](mailto:hjpm@usace.army.mil) or call 1-888-694-8313 and select option 1.

### Great Lakes Basin Hydrology November 2022

Precipitation in the Lake Superior basin was around 140% of its November average according to preliminary estimates. Lakes Michigan-Huron and Erie received significantly below average precipitation and Lake Ontario experienced slightly below average precipitation for November. In addition, precipitation over the past 12 months is below average for all lake basins except Superior. Provisional estimates show extremely high November water supplies for Lake Superior, while November water supplies were below average for Lakes Michigan-Huron and Erie. Lake Ontario water supplies were slightly above average. Also, outflows from Lakes Superior, Michigan-Huron, St. Clair, and Erie continued to be above average in November, while the outflow from Lake Ontario into the St. Lawrence River was slightly below average for the 2<sup>nd</sup> consecutive month.

Lake Superior's monthly mean water level remained steady from October to November. However, water levels continued with seasonal declines on the other Great Lakes. The decline in levels ranged from less than an inch for Lake Ontario to around 4 inches for Lake St. Clair. The latest Great Lakes water levels 6-month forecast predicts Lakes Superior, Michigan-Huron, St. Clair, and Erie will decline from November to December. Lake Ontario is projected to begin its seasonal rise.

PRECIPITATION (INCHES)								
BASIN	November				12-Month Comparison			
	2022	Average (1900-2020)	Diff.	% of Average	Last 12 months	Average (1900-2020)	Diff.	% of Average
Superior	3.50	2.48	1.02	141	30.53	30.67	-0.14	100
Michigan-Huron	1.96	2.80	-0.84	70	29.18	32.99	-3.81	88
Erie	1.79	2.87	-1.08	62	28.65	35.98	-7.33	80
Ontario	3.00	3.19	-0.19	94	30.99	36.42	-5.43	85
Great Lakes	2.47	2.76	-0.29	89	29.67	33.11	-3.44	90

Lake	November WATER SUPPLIES <sup>1</sup> (cfs)		November OUTFLOW <sup>2</sup> (cfs)	
	2022	Average <sup>3</sup> (1900-2008)	2022	Average <sup>3</sup> (1900-2008)
Superior	143,000	17,000	93,000	78,000
Michigan-Huron	-8,000	39,000	209,000	190,000
Erie	-13,000	-3,000	221,000	201,000
Ontario	22,000	21,000	234,000	238,000

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