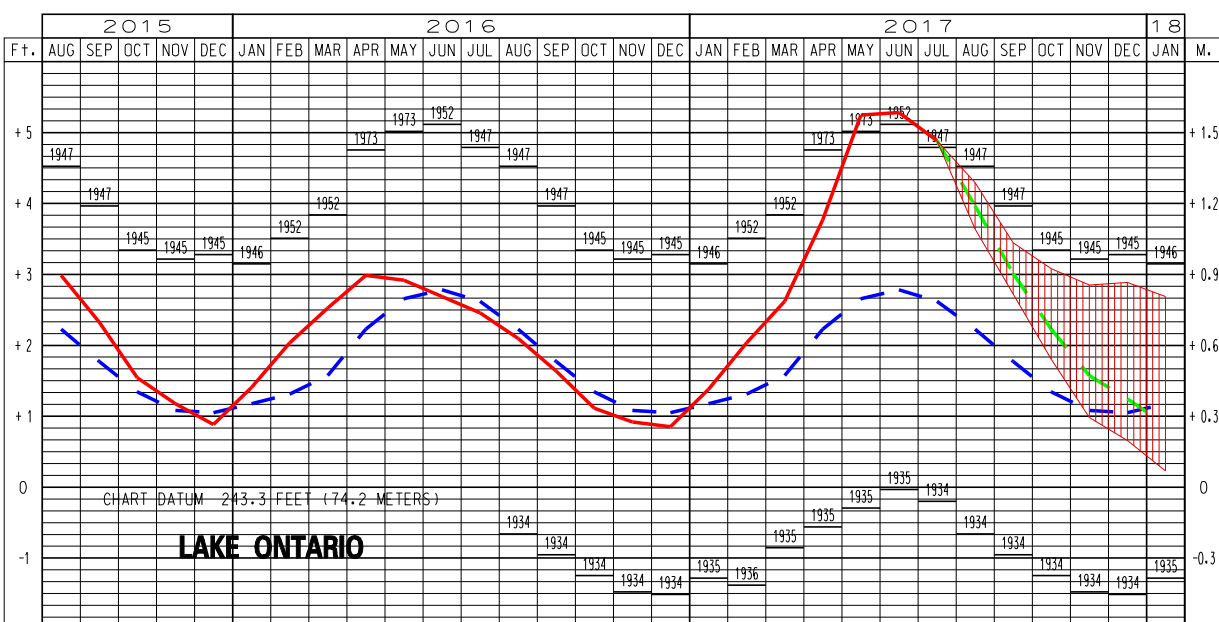
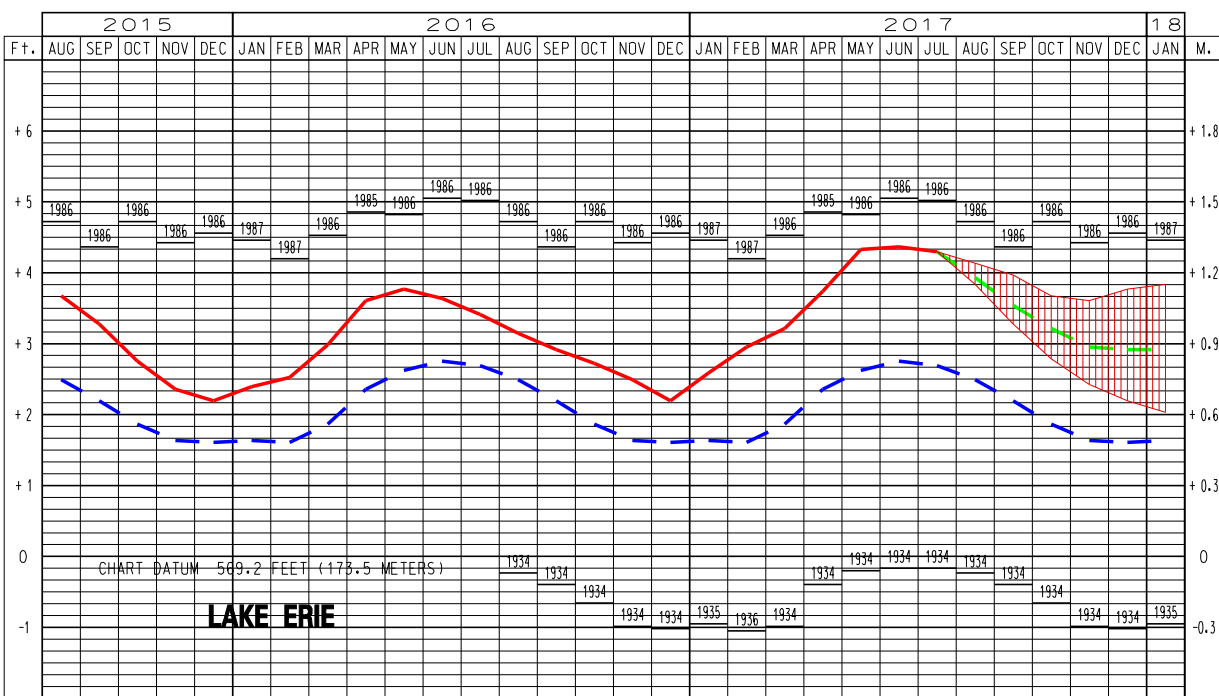
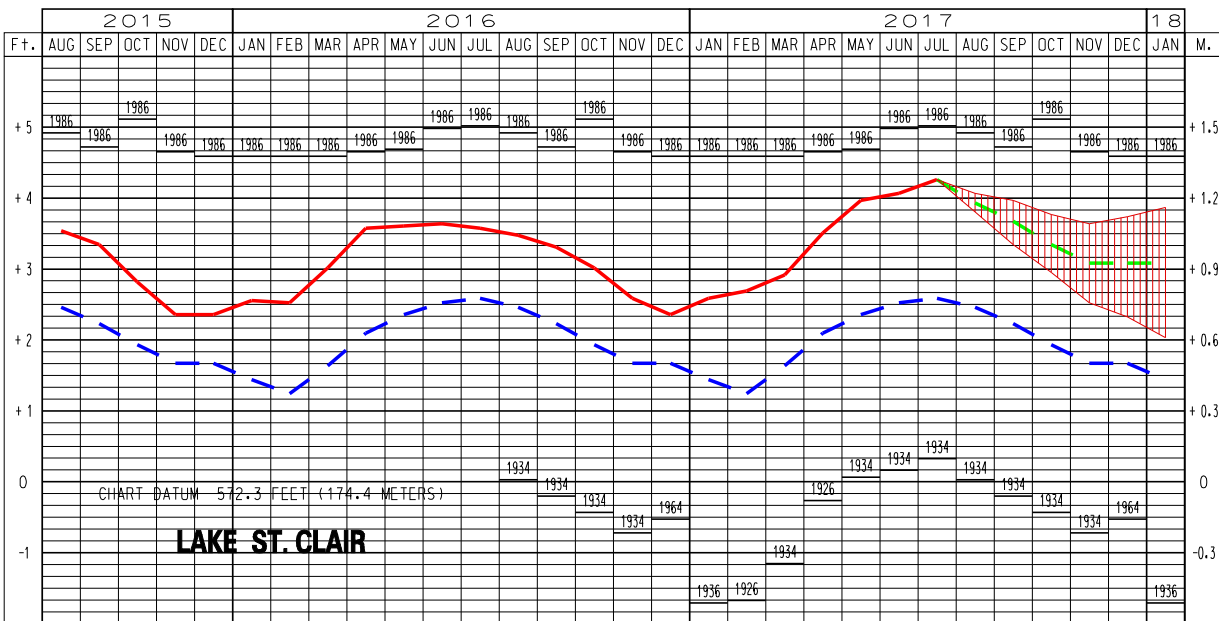
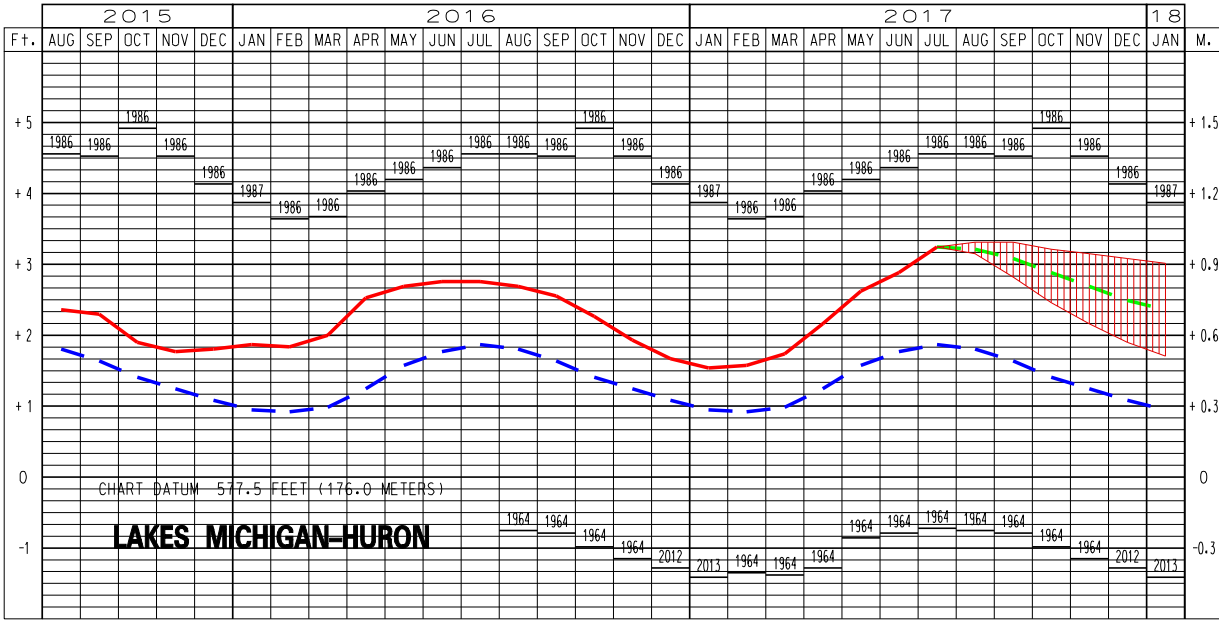


**US Army Corps
of Engineers**
Detroit District

**MONTHLY BULLETIN OF
LAKE LEVELS FOR THE
GREAT LAKES**

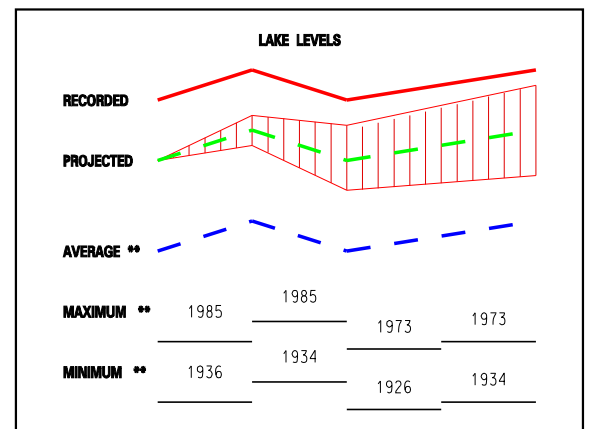
AUGUST 2017

Water levels for the previous year and the current year to date are shown as a solid line on the hydrographs. A projection for the next six months is given as a dashed line. This projection is based on the present condition of the lake basin and anticipated future weather. The shaded area shows a range of possible levels over the next six months dependent upon weather variations. Current and projected levels (solid and dashed lines) can be compared with the 1918–2016 average levels (dotted line) and extreme levels (shown as bars with their year of occurrence). The legend below further identifies the information on the hydrographs.



ELEVATIONS REFERENCED TO THE CHART DATUM OF EACH RESPECTIVE LAKE

LEGEND



The levels on the hydrographs are shown in both feet and meters above (+) or below (-) Chart Datum. Chart Datum, also known as Low Water Datum, is a reference plane on each lake to which water depth and Federal navigation improvement depths on navigation charts are referred.

All elevations and plots shown in this bulletin are referenced to International Great Lakes Datum 1985 (IGLD 1985). IGLD 1985 has its zero base at Rimouski, Quebec near the mouth of the St. Lawrence River (approximate sea level).

JULY MEAN LAKE LEVELS

(IGLD 1985)

	Superior	Mich-Huron	St. Clair	Erie	Ontario
* 2017	Ft. 602.85	580.68	576.44	573.52	248.33
	M. 183.75	176.99	175.70	174.81	75.69
2016	Ft. 602.66	580.18	575.75	572.64	245.90
	M. 183.69	176.84	175.49	174.54	74.95
Ft. 603.08	581.99	577.20	574.25	248.23	
** MAX.	M. 183.82	177.39	175.93	175.03	75.66
Yr. 1950	1986	1986	1986	1986	1947
Ft. 600.26	576.71	572.51	569.06	243.24	
** MIN.	M. 182.96	175.78	174.50	173.45	74.14
Yr. 1926	1964	1934	1934	1934	1934
** AVG.	Ft. 602.07	579.30	574.77	571.92	246.06
	M. 183.51	176.57	175.19	174.32	75.00

* provisional
** Average, Maximum and Minimum for period 1918–2016

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 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 July 2017

According to preliminary estimates, precipitation during the month of July was below average for the Great Lakes basin. Lake Ontario was the only lake that received above average precipitation during July, receiving 114% of average precipitation. Lakes Superior, Michigan-Huron, and Erie received 73%, 90%, and 92% of average precipitation, respectively. The net basin supplies were above average for all of the lakes, except Lake Superior. The outflows for July were above average for all lakes and for the second consecutive month, Lake Ontario's preliminary average monthly outflow estimate is a record high outflow based on the period of record³.

The July monthly mean levels for all the lakes were above their July long-term average levels and above last year's July levels. From June to July, Lake Superior rose 3 inches, Lake Michigan-Huron rose 4 inches, and Lake St. Clair rose 2 inches. Lake Erie declined less than an inch and Lake Ontario declined 5 inches in the last month. However, Lake Ontario's July water level of 248.33 feet is the highest July monthly mean water level recorded based on the period of record (1918-2016).

PRELIMINARY PRECIPITATION (INCHES)								
BASIN	July				12-Month Comparison			
	2017	Average (1900-2014)	Diff.	% of Average	Last 12 months	Average (1900-2014)	Diff.	% of Average
Superior	2.41	3.28	-0.87	73	33.41	30.52	2.89	109
Michigan-Huron	2.74	3.03	-0.29	90	36.65	32.57	4.08	113
Erie	3.13	3.41	-0.28	92	39.34	35.65	3.69	110
Ontario	3.64	3.19	0.45	114	41.90	35.87	6.03	117
Great Lakes	2.83	3.16	-0.33	90	36.77	32.76	4.01	112

LAKE	July Net Basin Supplies ¹ (cfs)		July Outflows ² (cfs)	
	2017	Average (1900-2008)	2017	Average ³ (1900-2008)
Superior	118,000	129,000	114,000	81,000
Michigan-Huron	151,000	128,000	214,000	195,000
Erie	34,000	7,000	251,000	209,000
Ontario	57,000	24,000	367,000	261,000

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