

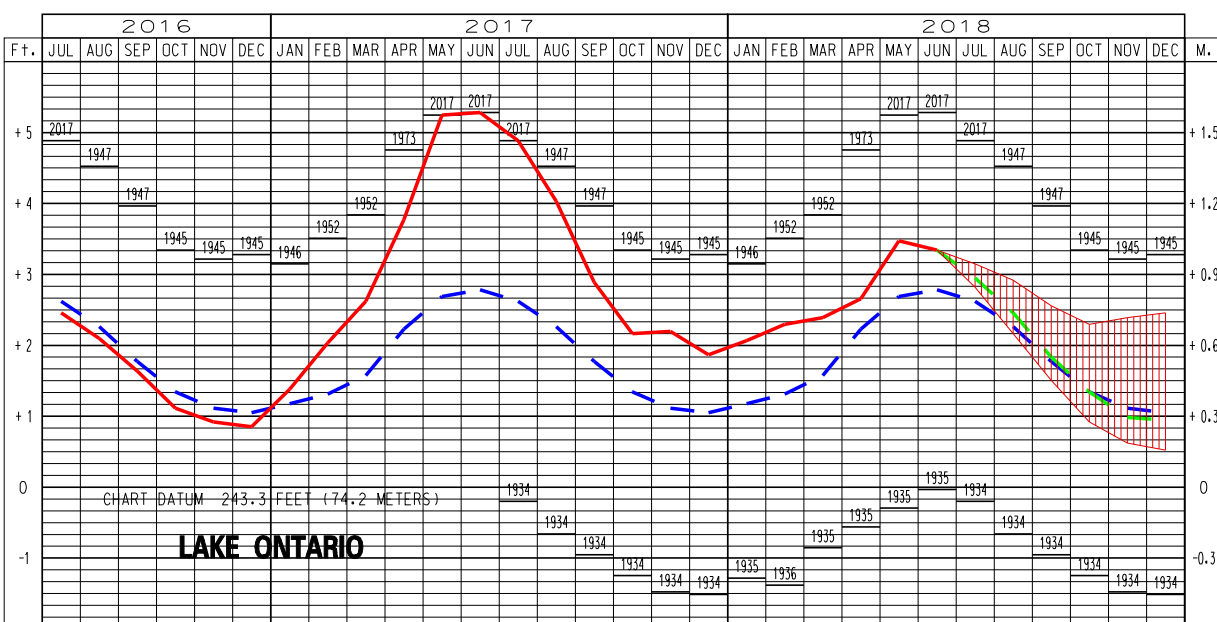
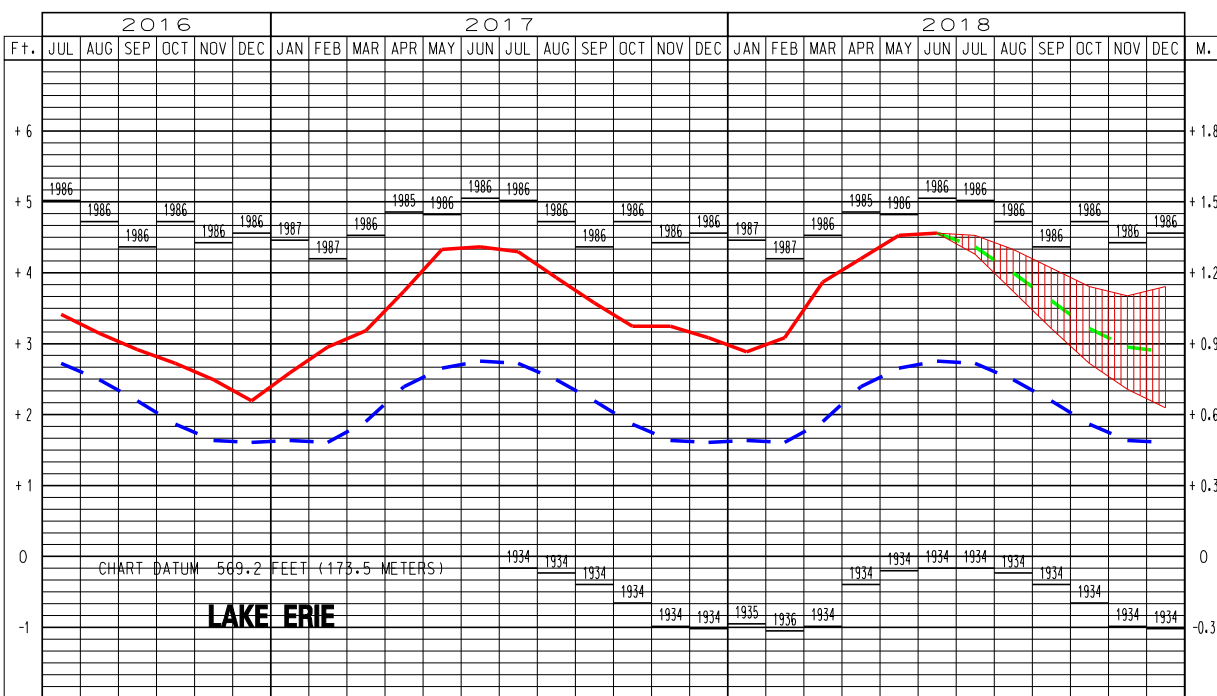
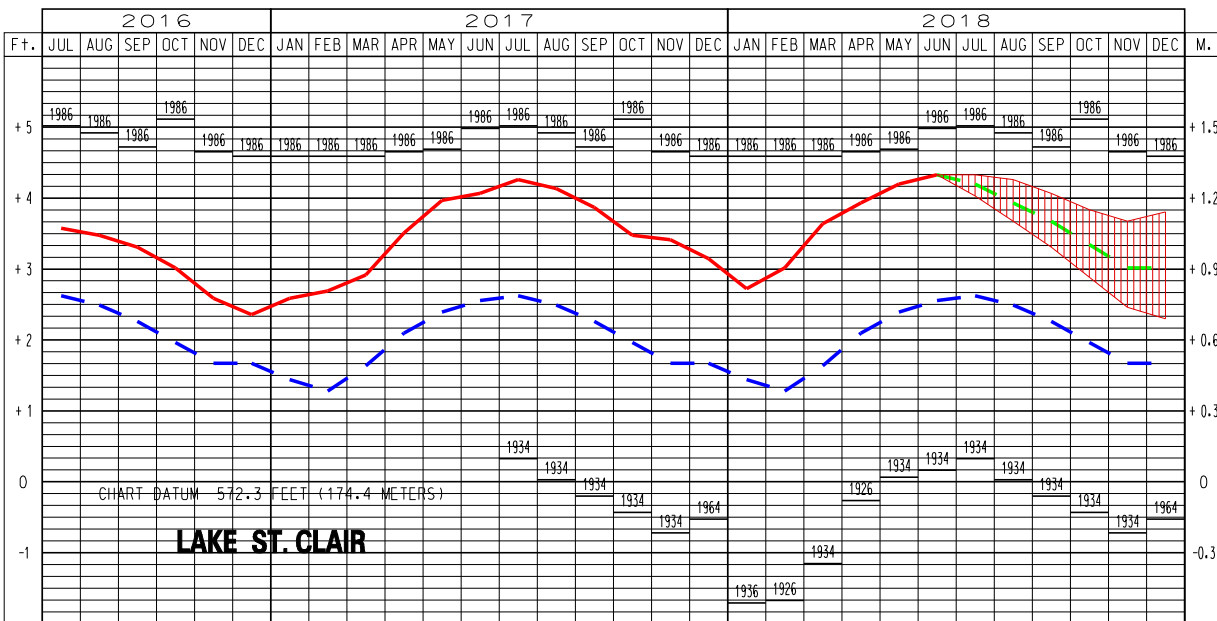
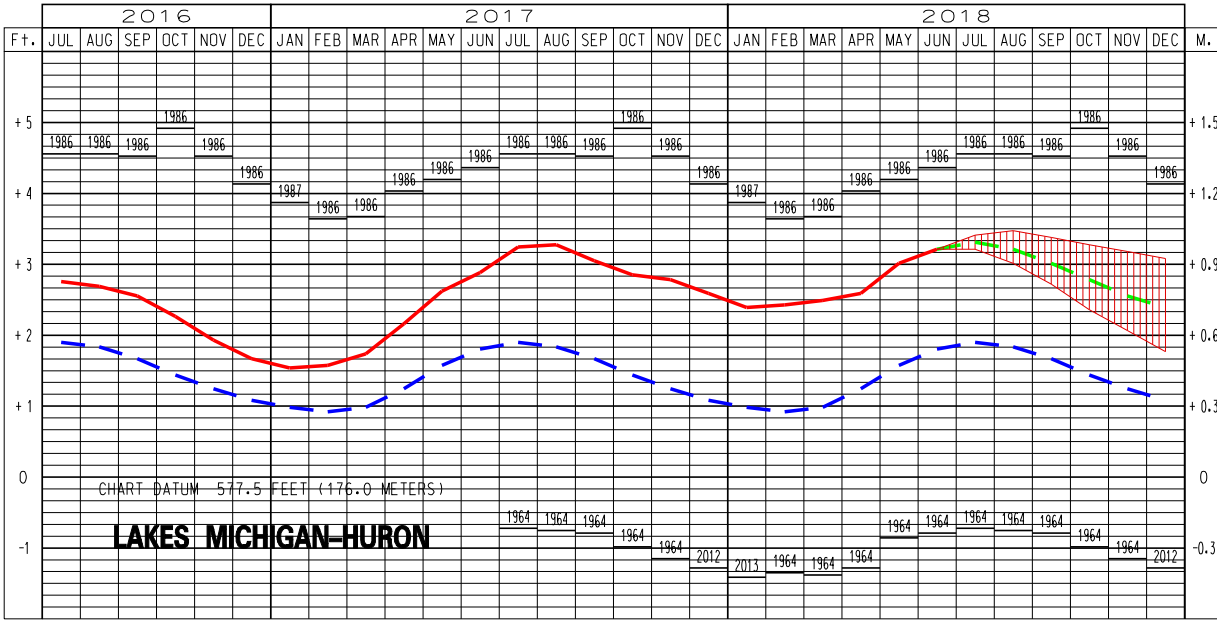
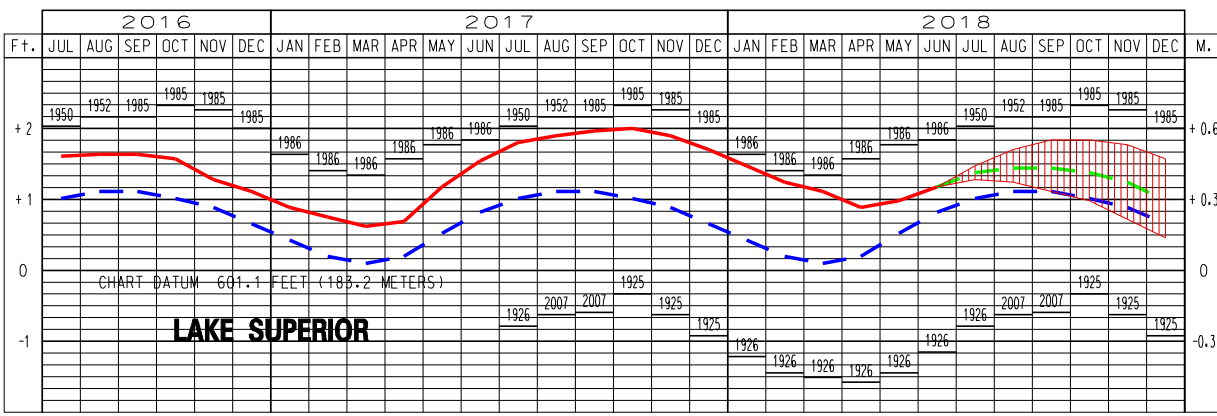
**US Army Corps
of Engineers**
Detroit District

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

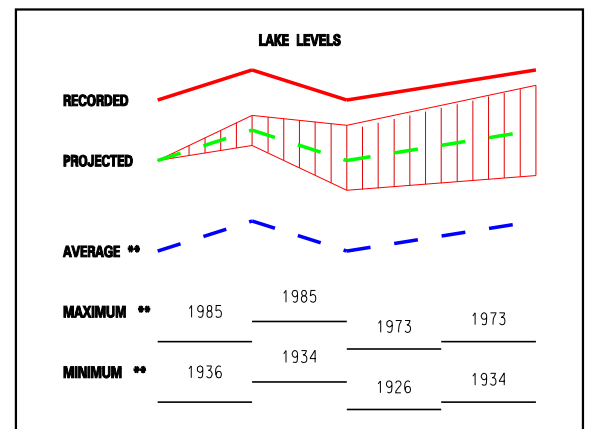
JULY 2018

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 1918–2017 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).

JUNE MEAN LAKE LEVELS

(IGLD 1985)

	Superior	Mich-Huron	St. Clair	Erie	Ontario
* 2018	Ft. 602.23	580.64	576.51	573.79	246.78
	M. 183.56	176.98	175.72	174.89	75.22
2017	Ft. 602.59	580.31	576.25	573.59	248.72
	M. 183.67	176.88	175.64	174.83	75.81
Ft. 602.89	581.79	577.17	574.28	248.72	
** MAX.	M. 183.76	177.33	175.92	175.04	75.81
Yr. 1986	1986	1986	1986	1986	2017
Ft. 599.90	576.64	572.34	569.06	243.41	
** MIN.	M. 182.85	175.76	174.45	173.45	74.19
Yr. 1926	1964	1934	1934	1935	
** AVG.	Ft. 601.87	579.23	574.74	571.98	246.23
	M. 183.45	176.55	175.18	174.34	75.05

* provisional
** Average, Maximum and Minimum for period 1918–2017

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 June 2018

According to preliminary precipitation estimates, precipitation within the Great Lakes basin was about 15% below average in June. The precipitation to Lakes Superior and Erie was near average for June, but Lakes Michigan-Huron and Ontario experienced precipitation that was about 25% and 15%, respectively, below normal. All of the lake basins have experienced slightly below average precipitation over the last 12 months. In June, the net basin supply was below average for Lakes Superior, Michigan-Huron and Ontario, but Lake Erie received near average water supplies. Outflows continued to remain above average on all of the lakes in June.

All of the lakes remained above their long-term average water levels in June. Lake Superior's monthly mean level this June was 4 inches lower than its level of a year ago, while Lakes Michigan-Huron and Erie were 4 and 2 inches, respectively, above last year's level. Lake Ontario was 23 inches below last year's record high June level. From May to June, Lake Superior, Michigan-Huron, and Erie continued their seasonal rise, but Lake Ontario began its seasonal decline. Lakes Superior and Michigan-Huron both climbed 2 inches, while Lake Erie rose less than an inch. Lake Ontario fell by 2 inches.

PRELIMINARY PRECIPITATION (INCHES)								
BASIN	June				12-Month Comparison			
	2018	Average (1900-2016)	Diff.	% of Average	Average Last 12 Months	Average (1900-2016)	Diff.	% of Average
Superior	3.28	3.30	-0.02	99	29.04	30.58	-1.54	95
Michigan-Huron	2.31	3.18	-0.87	73	29.53	32.55	-3.02	91
Erie	3.49	3.50	-0.01	100	32.97	35.62	-2.65	93
Ontario	2.68	3.20	-0.52	84	33.65	35.87	-2.22	94
Great Lakes	2.76	3.25	-0.49	85	30.29	32.77	-2.48	92

LAKE	June Net Basin Supplies ¹ (cfs)		June Outflows ² (cfs)	
	2018	Average (1900-2008)	2018	Average ³ (1900-2008)
Superior	148,000	155,000	90,000	77,000
Michigan-Huron	192,000	204,000	216,000	192,000
Erie	33,000	31,000	256,000	216,000
Ontario	33,000	42,000	321,000	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