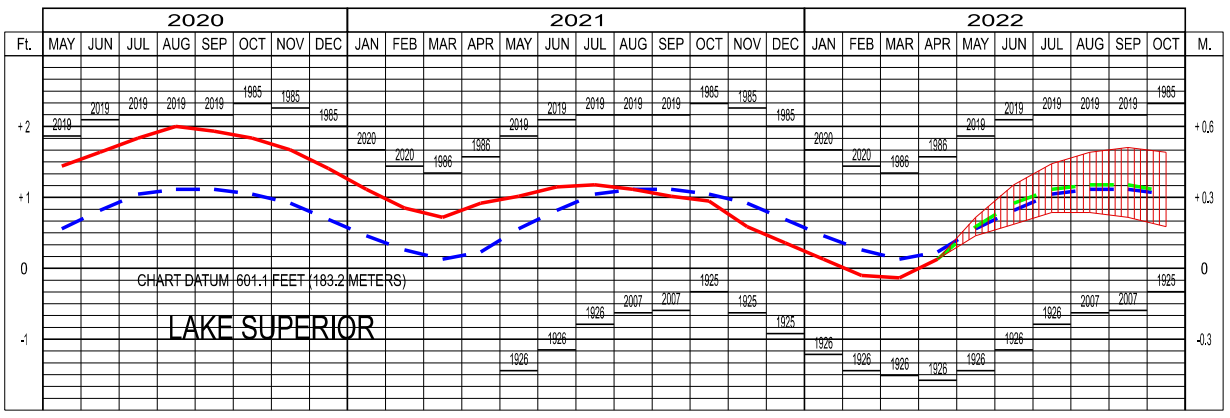
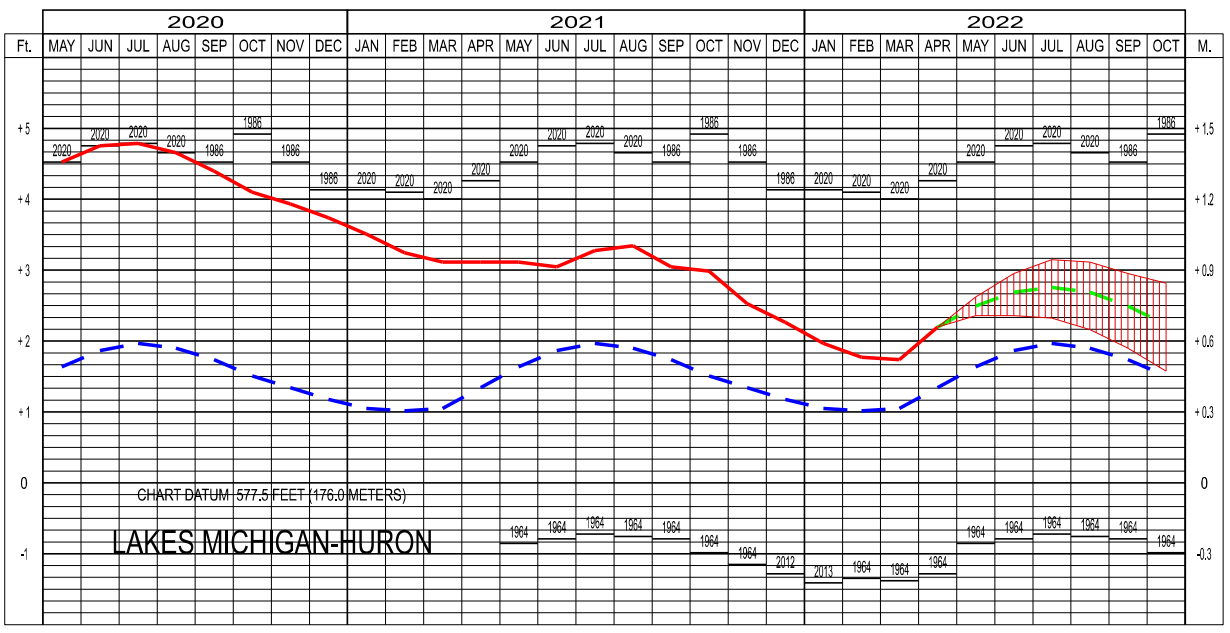
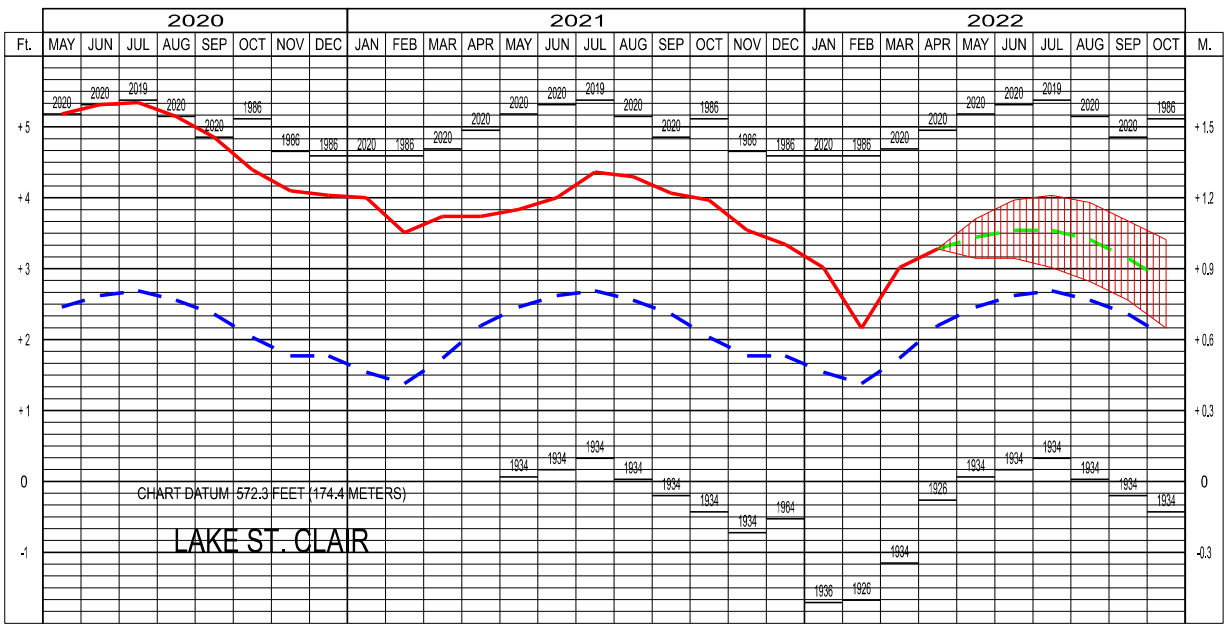
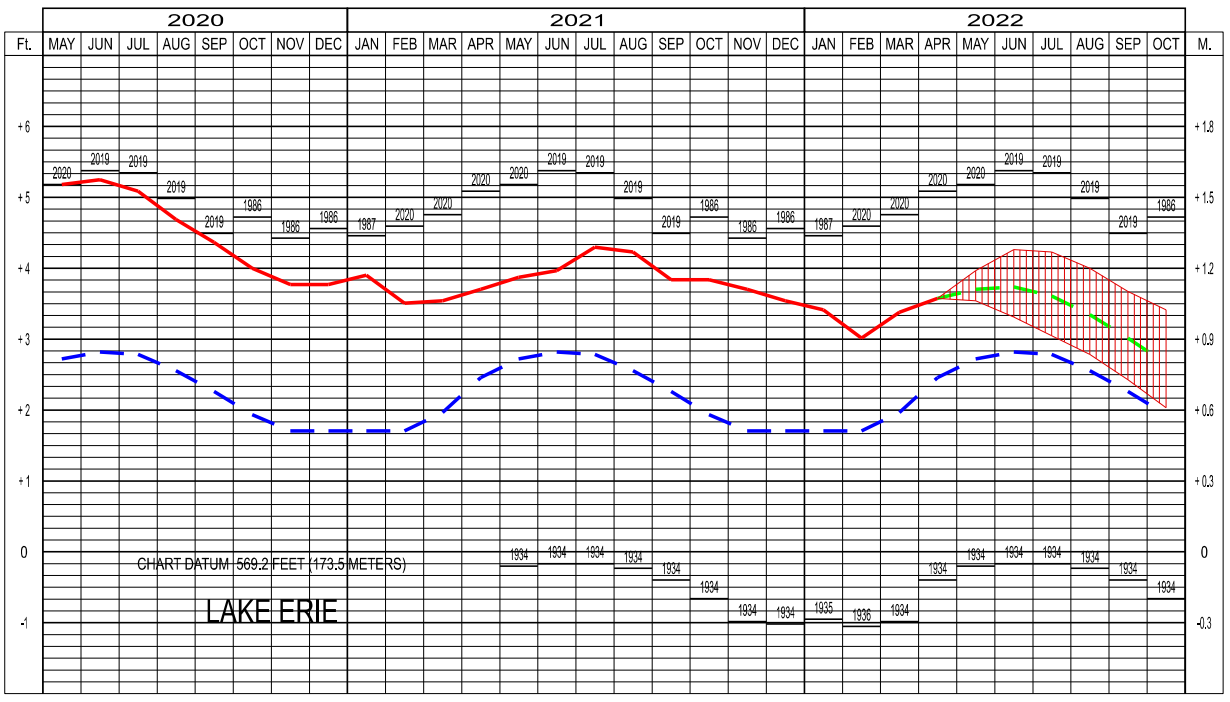
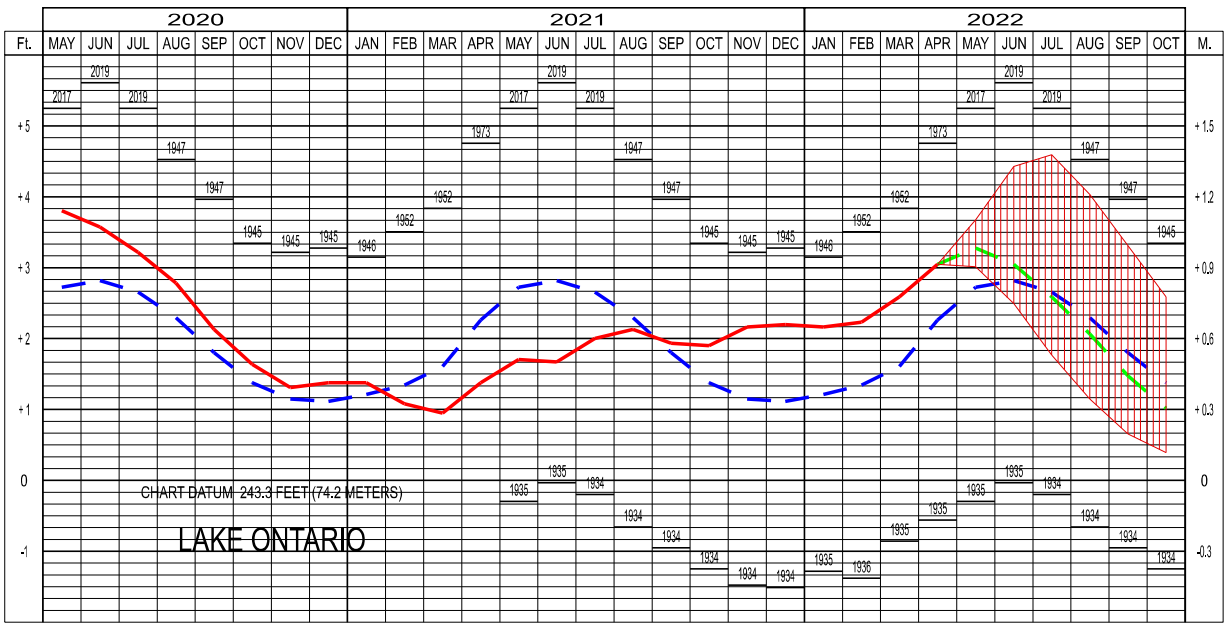










ELEVATIONS REFERENCED TO THE CHART DATUM OF EACH RESPECTIVE LAKE

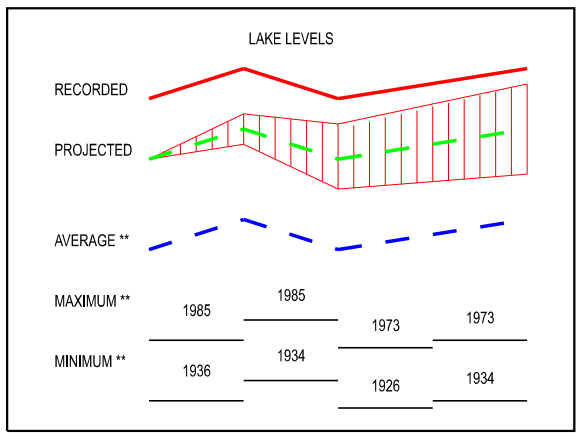
US Army Corps of Engineers
Detroit District

MONTHLY BULLETIN OF LAKE LEVELS FOR THE GREAT LAKES

MAY 2022

Monthly mean 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 1918-2021 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.

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 are referenced to the 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).

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APRIL MEAN LAKE LEVELS

(IGLD 1985)

		Superior	Mich-Huron	St. Clair	Erie	Ontario
* 2022	Ft.	601.18	579.63	575.46	572.80	246.49
	M.	183.24	176.67	175.40	174.59	75.13
2021	Ft.	601.97	580.54	575.92	572.93	244.82
	M.	183.48	176.95	175.54	174.63	74.62
** MAX.	Ft.	602.62	581.69	577.13	574.31	248.20
	M.	183.68	177.30	175.91	175.05	75.65
	Yr.	1986	2020	2020	2020	1973
** MIN.	Ft.	599.48	576.15	571.92	568.83	242.88
	M.	182.72	175.61	174.32	173.38	74.03
	Yr.	1926	1964	1926	1934	1935
** AVG.	Ft.	601.28	578.77	574.38	571.69	245.70
	M.	183.27	176.41	175.07	174.25	74.89

* provisional
** Average, Maximum and Minimum for period 1918-2021

Information

Recorded monthly mean 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 is available 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 https://www.lre.usace.army.mil/Missions/GreatLakesInformation.aspx.

Great Lakes Basin Hydrology
April 2022

During the month of April, precipitation estimates indicate that the Great Lakes basin received above average precipitation. Lake Superior received almost double its average precipitation for the month, receiving almost 4 inches of precipitation. Despite the wet April for Lake Superior, over the last 12 months the basin has received 88% of average precipitation. Lake Michigan-Huron received slightly above average precipitation in April, while Lakes Erie and Ontario both received below average precipitation. These lake basins have experienced precipitation near average over the last 12 months. In April, water supplies were above average on Lakes Superior and Michigan-Huron, but below average on Lakes Erie and Ontario. Outflows continued to be above average, except for outflow out of Lake Superior which remained below average.

From March to April, all the lakes experienced a rise in water levels. Lakes Superior and St. Clair rose 3 inches, Lakes Michigan-Huron and Ontario rose about 6 inches, and Lake Erie rose 2 inches. The Great Lakes water levels 6-month forecast projects all the lakes will continue their seasonal rise over the next month.

PRECIPITATION (INCHES)

BASIN	April				12-Month Comparison			
	2022	Average (1900-2018)	Diff.	% of Average	Last 12 months	Average (1900-2018)	Diff.	% of Average
Superior	3.97	2.05	1.92	194	27.04	30.59	-3.55	88
Michigan-Huron	3.13	2.68	0.45	117	32.47	32.87	-0.40	99
Erie	2.15	3.23	-1.08	67	36.65	35.91	0.74	102
Ontario	2.77	2.99	-0.22	93	37.47	36.34	1.13	103
Great Lakes	3.18	2.60	0.58	122	32.05	32.99	-0.94	97

Lake	April WATER SUPPLIES[1] (cfs)		April OUTFLOW[2] (cfs)	
	2022	Average[3] (1900-2008)	2022	Average[3] (1900-2008)
Superior	207,000	151,000	54,000	68,000
Michigan-Huron	369,000	286,000	212,000	182,000
Erie	53,000	68,000	243,000	207,000
Ontario	70,000	91,000	292,000	250,000

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