



US Army Corps
of Engineers
Detroit District



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DECEMBER 2022 GREAT LAKES WATER LEVEL SUMMARY

LAKE SUPERIOR

Lake Superior resumed its seasonal decline in December. It's monthly mean water level of 602.26 ft in December was an inch lower than it was in November. In addition, this level was 6 inches above its December long-term average (LTA) level, 10 inches above the 2021 December level, and 9 inches below the lake's record-high December level. Preliminary statistics indicate near average precipitation and near average water supplies* to Lake Superior in December. The latest 6-month water level forecast projects Lake Superior to continue declining in January. The lake is expected to be 6 to 10 inches above last year's levels from January to April and be within an inch of last year's levels in May and June. Also, lake levels are predicted to be 4 to 6 inches above LTA levels, 6 to 14 inches above Chart Datum, and 8 to 11 inches below record high levels over the next 6 months.

LAKE MICHIGAN-HURON

Lake Michigan-Huron is in the midst of its seasonal decline and its monthly mean level fell 4 inches from November to December. Its December monthly mean level of 578.97 feet was 4 inches above its LTA December level, 9 inches below its December 2021 level, and 31 inches below its December record high level. Water supplies* in December were below average. Below average precipitation and runoff contributed to these low supplies. According to the 6-month water level bulletin, Lake Michigan-Huron will continue its seasonal decline through February. From January to June, the lake is predicted to be 4 to 7 inches below last year's levels, 30 to 33 inches below record-highs, but 4 inches above LTA levels.

LAKE ST. CLAIR

Declining levels persisted on Lake St. Clair in December, as its mean monthly level dropped to 574.54 feet. This level was 7 inches above the monthly LTA level, 12 inches below the last year's level, and 27 inches below the December record high level. The current 6-month water level forecast calls for Lake St. Clair's January monthly mean level to match its December level and for the lake to decline slightly in February. The January to June forecast shows water levels to be 6 to 8 inches below last year's level, with the exception of February, for which the forecasted monthly mean level is expected to be 2 inches above February 2022's ice jam-depressed level. In addition, the current 6-month forecast projects the lake's levels to be 7 to 11 inches above monthly LTA levels and 26 to 28 inches below record-high levels.

LAKE ERIE

Lake Erie continued its seasonal decline in December and its monthly mean level fell 2 inches from November to December. This mean level of 571.52 feet was 7 inches above the monthly LTA level, 15 inches below last year's level, and 27 inches below the record high December level set in 1986. December water supplies* to Lake Erie were near average, even though precipitation, a main component of water supplies, was below average for December. The updated 6-month forecast shows Lake Erie continuing to decline until January. From January to June, the lake's levels are expected to be 6 to 14 inches below last year's levels and 22 to 28 inches below record high levels. In addition, water levels are expected to be 6 to 7 inches to above LTA levels over the next 6 months.

LAKE ONTARIO

Lake Ontario began its seasonal rise in December and its monthly mean level climbed 3 inches to 244.32 feet. This level was 3 inches below December's LTA level, 16 inches below the December 2021 level, and 29 inches below its record-high monthly level for December. Lake Ontario experienced significantly above average water supplies* in December, with December precipitation about 30% above average. Basin runoff was also above normal. The latest 6-month forecast shows Lake Ontario will continue its seasonal rise through June. Over the next 6 months, lake levels are forecasted to be within 2 inches of LTA levels, 3 to 13 inches below last year's levels, and 24 to 34 inches below record high water levels.

* "Water supplies" refers to the combined quantity of precipitation plus runoff minus evaporation. Also known as the net basin supply.