



**US Army Corps
of Engineers**

North Central Division

Great Lakes Levels Update No. 36 July 1, 1988

June inaugurated the great drought of 1988. Lack of precipitation and unusually high temperatures prevailed throughout the basin. Preliminary assessment is that the entire Great Lakes set a record in June for the least amount of rain since record keeping began in 1900. Only Lakes Superior and Ontario did not set records; however, Lake Superior received much less than average and Lake Ontario was very near its record low amount. The combined April-June precipitation was the lowest since record keeping began in 1900. The Great Lakes Basin 30-day outlook from the National Weather Service for the month of July is indicating generally above average air temperatures and average to below-average precipitation.

Only Lake Superior's level rose a slight amount in June; all the other lakes dropped. Michigan and Huron levels begin July at long-term average; Lakes Superior and Ontario enter the month below average; and Lakes Erie and St. Clair are marginally above long-term average. For this month, we expect Lake Superior to increase and the other lakes to continue dropping.

To put the current drought in some perspective, the record low annual precipitation was set in 1930: a total of 25.7 inches. That and the following year saw drastic drops in lake levels. If the pattern of the last six months continues for the rest of the year, the basin could even get less precipitation than in 1930 and experience a continued significant decline in lake levels.

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To summarize major impacts of the drought...on navigation: Lake Superior is now at about low water datum (LWD), raising concern for commercial navigation. The available draft in the upper St. Marys River above the Soo Locks is currently the controlling depth for navigation between Lake Superior and the downstream lakes. The level in Montreal Harbor on the lower St. Lawrence River continued to decline and dipped below LWD recently; the International St. Lawrence River Board of Control is closely monitoring this serious and worsening situation.

On boating and recreation: riparians and tourists who grew accustomed in recent years to high water may find current near-average levels disadvantageous. If the drought continues, this negative perception will intensify as some fixed facilities will extend out of water and obstacles such as shallow rocks become hazards.

On erosion and beach activities: the risk of erosion and storm damage generally lessens with declining levels, although a severe storm can cause shoreline damage whatever the level. Beaches seem to grow as the water lines recede. The high water of recent years has changed the shape of many beaches, displaced some, created new ones and eliminated others. Low water exposes many of these changes.

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