

# Flood Watch

The Essex Region Conservation Authority advises that, due to the record high lake levels, a Flood Watch remains in effect for all shoreline areas within the Essex Region, including Pelee Island. Areas of concern are the low lying beach communities and shoreline areas along Lake St. Clair, the Detroit River, and Lake Erie, as well as low lying areas along the downstream reaches of major tributaries. Unless superseded by a Flood Warning, this watch will remain in effect until August 2, 2019 at which time conditions will be reevaluated.

### **Areas of Potential Concern:**

With record high lake levels, areas that may be potentially impacted can vary from day-to-day based on wind speed and direction. Areas at risk of flooding and erosion as it relates to wind are described below:

#### Northeast Winds:

- Lake St. Clair shoreline from Windsor to Belle River;
- Lake Erie shoreline including Pelee Island;
- Detroit River shoreline; and
- Low-lying areas at the downstream reaches of major tributaries.

#### North Winds:

- Lake St. Clair Shoreline.

#### Northwest Winds:

- Lake St. Clair shoreline from Belle River to Tilbury North.

#### South/southwest and South/southeast Winds:

- Lake Erie shoreline including south Pelee Island.

#### West Winds:

- West shoreline of Pelee Island.

**Current Conditions:**

Current lake levels for Lake St. Clair and Lake Erie are surpassing record monthly means. From the month of May to the month of June, Lake St. Clair and Lake Erie rose approximately 10 cm and 9 cm, respectively. This set new all-time high monthly mean records for both lakes with monthly means of 175.99 metres for Lake St. Clair and 175.14 metres for Lake Erie. Based on this information, Lake St. Clair surpassed the previous all-time high monthly mean level set in October 1986 by approximately 3 cm, while Lake Erie surpassed the established all time high monthly mean level just recently set in May 2019 by 9 cm. The current monthly average through the past 15 days of July for Lake St. Clair and Lake Erie are 176.05 metres and 175.16 metres, respectively. These levels are static water levels, meaning they do not account for wind-driven setup or waves.

At these current levels, low lying areas along the shoreline in various municipalities have been continuously impacted by river and lake water, including private lands and public right-of-ways. Additionally, these levels bring an elevated risk of flooding and erosion across the watershed. Typically, sustained wind speeds in the range of 40 to 50 km/hr or higher are associated with an increased risk of flooding, shoreline erosion, and damage to shoreline structures. Elevated lake levels have significantly reduced the required wind speed to cause these issues, as we have experienced multiple occurrences of flooding with much slower wind speeds from various directions.

Elevated lake levels are also causing downstream reaches of major tributaries to remain elevated and in some cases, local rivers and creeks have spilled into low-lying areas impacting private property and some roadways. With these tributaries full of lake water, it reduces their capacity to handle rainfall events and has the potential to cause flooding. Additionally, summer thunderstorm activity has also proven to be an issue in shoreline areas and the downstream reaches of major tributaries. These “pop-up thundershowers” are not always forecasted and the strong winds associated with them can produce unpredictable waves and water level changes that impact shoreline communities.

**Short-Term Outlook:**

Lake St. Clair and Lake Erie typically peak during the months of June or July; however, even with the potential for a reduction in lake levels through the summer and fall, levels are still anticipated to be at or near record highs. The region should be prepared for equal to or greater than 1986 water levels throughout the remainder of 2019.

**Monitoring:**

The Municipality of Leamington should continue to monitor the flood control dykes in the Southeast Leamington Area, including the Mersea Road 1 Dyke and the Marentette Dyke. The southern section of the Marentette Beach Road dyke that provides protection for the inland Marentette Dyke has sustained damage from recent storm events through spring 2019. Due to the damage sustained to the outer layer of protection, the interior corner of the Marentette Dyke is more exposed to direct wave impact from Lake Erie, increasing its susceptibility to erosion and risk to flooding. The Municipality of Leamington is actively working to assess the damage and coordinate corrective actions to restore an appropriate level of protection.

The Township of Pelee should continue to monitor areas that have experienced significant erosion, such as portions of West Shore Road and McCormick Road. These areas are at a high risk of being washed-out if substantial winds persist out of the west/southwest.

The City of Windsor should continue to monitor water levels along the flood control dykes within the Little River

Drain corridor.

Essex Region Conservation Authority officials will continue to monitor conditions and advise accordingly.

**Caution:**

People should take extra caution to avoid areas where flooding is occurring as well as rivers, streams, and shoreline areas during significant rainfall and wind/lake events. The combination of slippery banks, waves, waves overtopping shoreline structures, and fast moving water can be dangerous. Standing water can also present its own unseen hazards. Children, pets, and livestock should be kept away from flowing or standing water as well as shoreline areas.

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**Date: July 16, 2019**

**Time: 4:00 pm**

**This advisory is in effect until: 16:00 PM, Aug 02, 2019**

**Municipalities and Other Agencies:**

Upon receipt, hand directly to the Flood Coordinator or Emergency Planner for your Municipality or Agency.

**Media:**

Upon receipt, hand directly to your newsroom.

**Types of Flood Bulletins**

Watershed Conditions - High flows, unsafe banks, melting ice or other factors that could be dangerous for recreational users such as anglers, canoeists, hikers, children, pets, etc. Flooding is not expected.

Watershed Conditions – Early notice of the potential for flooding based on weather forecasts calling for heavy rain, snow melt, high wind or other conditions that could lead to high runoff, cause ice jams, lakeshore flooding or erosion.

Flood Watch Bulletins Flooding is possible in specific watercourses or municipalities. Municipalities, emergency services and individual landowners in flood-prone areas should prepare.

Flood Warning Bulletins Flooding is imminent or already occurring in specific watercourses or municipalities.