Essex Region Conservation
the place for life

UNITED STATES

LAKE ST. CLAIR

WIND

WIND

WIND

WIND

PIKE CREEK

PUCE RIVER

BELLE RIVER

RUSCOM RIVER

DETROIT RIVER

TURKEY CREEK

RIVER CANARD

BIG CREEK

CEDAR CREEK

LOWER THAMES

LAKE ERIE

WIND

WIND

WIND

WIND

The Essex Region Conservation Authority works with all municipal partners to ensure that they are prepared for flood events.

Local lake levels fluctuate seasonally with changes in net basin water supply, along with the net basin supply and outflows from the upper Great Lakes. Local lake levels were significantly impacted by local net basin supply as well as snowfall and snowmelt from the upper Great Lakes system caused by consecutive harsh winters from 2013 to 2015. This was a contributing factor to the prolonged high lake level period from 2016 through 2021. Winds, especially those form the northeast, can more significantly impact shoreline municipalities and residents. These impacts are more sever during periods of high lake levels and are more of a concern for these areas than the impacts associated with localized rainfall. Strong winds push the lake waters against the shoreline and the resulting wave energy can be immediately and significantly destructive to these properties.

DETROIT RIVER, PECHE ISLAND TO BAR POINT
The river can be squeezed at both ends from a northeast wind, with water backing up from Erie and pushing in from St. Clair.

LAUZON ROAD TO PIKE CREEK
A natural and artificially constructed landform along portions of shoreline offers some protection, area can be a metre or more lower than flood creating lake level.

MOUTHS OF ALL CREEKS AND WATERWAYS
Northeast winds can build up a wall of water which prevents the watercourse from draining. Much of the area intensively developed with older residences built prior to ERCA's regulations. Watercourses leading into St. Clair are generally at a higher risk due to the low lying nature and concentration of existing development along these waterways.

CEDAR BEACH
A long stretch from Kingsville to Oxley; several hundred properties at risk, flood prone area extends inland. Cedar Creek can back up with Erie pushed to shore by east, southeast and northeast winds.

SOUTHEAST LEAMINGTON
Includes Pulley Road, Cotterie Park, Elmdale Subdivision, East Beach and Marentette Beach in Leamington, susceptible to northeast and east winds.

BIG CREEK
At similar risk to Cedar Beach with potential flooding from Erie and Big Creek.

KINGSVILLE TO POINT PELEE
Northeast and east winds of similar strength and duration will raise lake levels and could result in flooding.

POINT PELEE
The greatest threat would come from a prolonged, strong northeast, east and southeast wind.

PELEE ISLAND
Three-quarters of the island dyked, northeast. Winds from east and southeast could result in flooding.

FLOOD PRONE AREAS