



Staff Report

Planning and Development Services – Planning

Report To: Committee of The Whole
Meeting Date: September 16, 2019
Report Number: PDS.19.98
Subject: Shoreline Hazards Regulations and Water Levels Information Report
Prepared by: Denise Whaley, Planner II

A. Recommendations

THAT Council receive Staff Report PDS.19.98, Shoreline Hazards Regulations and Water Levels Information Report; for information purposes.

B. Overview

The purpose of this Information Report is give Council a general overview of Shoreline Hazards and associated regulations along Georgian Bay.

C. Background

The shoreline along Georgian Bay is an area that contains potential flooding and erosion hazards. Development and Site Alteration near or within these Natural Hazards are regulated through both the Town's Zoning By-law, and through the Grey Sauble Conservation Authority, as part of their permitting system.

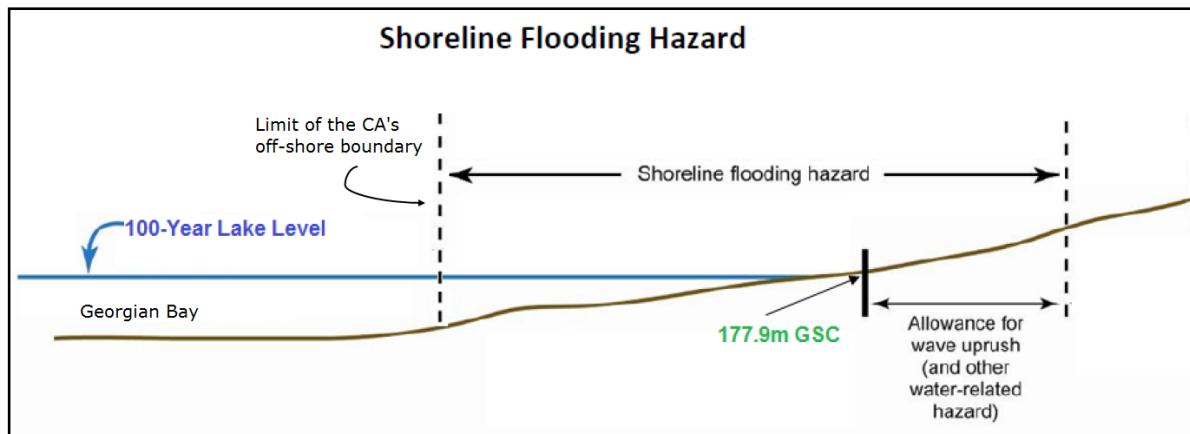
The Town's Zoning By-law contains both:

- a "Hazard Zone" relating to at-risk areas, such as slopes, near rivers and streams or other drainage outlets, and unstable soils.
- a Georgian Bay Shoreline Setback of 15 metres from the 100 year flood line

The Shoreline Setback of 15 metres is to protect properties from the potential *Wave Uprush*. The Wave Uprush area is an area potentially subject to additional wave action during a storm (See Figure 1). Should the water level reach the 100 year flood line, the additional setback from the flood line works to ensure waves do not reach buildings or structures.

The Grey Sauble Conservation Authority determines the 100 year Flood line and wave uprush area, O. Reg. 151/06: Grey Sauble Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses, under Conservation Authorities Act, R.S.O. 1990, c. C.27

Figure 1:



(Illustration adapted from www.creditvalleyca.ca)

No development is permitted in the area closer to the Bay and lower than the 100 year flood line. It should be noted however that some properties may be able to build within the Wave Uprush area, with both zoning relief, and a permit from the Grey Sauble Conservation Authority. The owners would need to complete additional flood proofing such as a retaining wall, designed by a qualified person.

In some cases a property may have both the Shoreline Setback and a Hazard zone. These are cases where more than one hazard feature is present. An example would be where the mouth of a river enters into Georgian Bay, additional water flowing during a storm event or spring thaw could impact surrounding properties along Georgian Bay.

Provincial Policy Statement (PPS, 2014), and the County and Town's Official Plans provide further policy direction to protect our community from these hazards.

D. Analysis

Water levels in the Great Lakes are recorded as significantly higher than average for 2019. Less beach area and impacts of water levels have been noted by the media and by residents.

Georgian Bay is part of the Michigan-Huron Basin, and water levels are measured and recorded as part of the basin system. As with all of the Great Lakes, water levels along Georgian Bay fluctuate. See Attachment #1 for a graph of historic lows and highs from 1918-2019 (chart provided by US Army Corps of Engineers <https://www.lre.usace.army.mil/>).

The high water mark or 100-year Flood line for Georgian Bay is 177.9 metres GSC (the equivalent of 177.9 metres above sea level). The highest recorded water for 2019 measured at Collingwood was 177.489 metres GSC on August 9. This number is close to previous records, but has not broken records, unlike the other Great Lakes in 2019. However the high levels are concerning to those at risk of flooding. Based on our best available information the levels are expected to drop in line with typical seasonal changes and based on the low rainfall for July.

The water level in Georgian Bay is still below the 100 year flood line and water levels at the 100 year flood line have not occurred within the 100 years of previously recorded levels. Staff continue to monitor the situation of water levels, as well as best practices for regulations along shoreline Hazards to ensure the safety of our community.

Should the water levels in the future exceed the 100 year flood level, Staff would reach out to our community partners, such as Grey Sauble Conservation Authority and the County of Grey, to work to determine if any of the regulatory framework would need to change (for example increase setbacks along Georgian Bay in the Zoning By-law) to continue to protect the community from flooding hazards.

E. The Blue Mountains Strategic Plan

The information in this report is consistent with the following goals and objectives of the Strategic Plan:

Goal #2 - Engage our communities and partners, Objective #1 Improve External Communication with our Constituents

Goal #3 - Support healthy lifestyles, Objective #4 Committee to Sustainability

F. Environmental Impacts

None.

G. Financial Impact

None.

H. In consultation with

Brian Worsley, Manager of Development Engineering.

I. Attached

1. Great Lakes Water Levels (1918–2019)

Respectfully Submitted,

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