### **GANARASKA REGION CONSERVATION AUTHORITY**

#### MINUTES OF THE BOARD OF DIRECTORS

June 15, 2023 (Hybrid)

#### GRCA 04/23

<u>1. Welcome, Land Acknowledgement and Call to Order</u> The Chair called the Ganaraska Region Conservation Authority (GRCA) Board of Directors meeting to order at 4:00 p.m.

MEMBERS PRESENT:	Mark Lovshin, Chair - Township of Hamilton Vicki Mink, Vice - Chair - Municipality of Port Hope Randy Barber - Town of Cobourg Bruce Buttar - Agricultural Representative Miriam Mutton - Town of Cobourg Adam Pearson - Municipality of Port Hope Tracy Richardson - City of Kawartha Lakes Joan Stover - Township of Alnwick/Haldimand Willie Woo - Municipality of Clarington Margaret Zwart - Municipality of Clarington Willie Woo – Municipality of Clarington
ALSO PRESENT:	Linda Laliberte, CAO/Secretary-Treasurer Ken Thajer, Planning and Regulations Coordinator Pam Lancaster, Conservation Lands Coordinator Ed Van Osch, Forest Recreation Technician
ABSENT WITH REGRETS:	
ALSO ABSENT:	Lance Nachoff - Township of Cavan Monaghan

#### Land Acknowledgement

The Ganaraska Region Conservation Authority respectfully acknowledges that the land on which we gather is situated within the traditional and treaty territory of the Mississauga's and Chippewa's of the Anishinabek, known today as the Williams Treaties First Nations. Our work on these lands acknowledges their resilience and their longstanding contribution to the area. We are thankful for the opportunity to live, learn and share with mutual respect and appreciation.

2. Disclosure of Pecuniary Interest

None.

#### 3. Minutes of Last Meeting

GRCA 28/23	
MOVED BY:	Randy Barber
SECONDED BY:	Tracy Richardson

**THAT** the Ganaraska Region Conservation Authority approve the minutes of the May 18, 2023 meeting. **CARRIED.** 

#### 4. Adoption of the Agenda

GRCA 29/23	
MOVED BY:	Miriam Mutton
SECONDED BY:	Vicki Mink

**THAT** the Ganaraska Region Conservation Authority adopt the agenda. **CARRIED.** 

5. Business Arising from Minutes: None.

6. Delegations None.

#### 7. Presentations

a) Source Water Protection

Jessica Mueller, Watershed Hydrogeologist provided a brief update to the Board of Directors on the Section 36 updates that are completed every 5 years. She informed the Board that a municipal working group meeting took place where the municipalities were informed of the updates. As well there have been no comments received from the preconsultation phase. The public consultation phase will be in the summer and a notice will be sent out advising municipalities of the dates of the consultation phase.

GRCA 30/23	
MOVED BY:	Miriam Mutton
SECONDED BY:	Joan Stover

**THAT** the Ganaraska Region Conservation Authority receive the verbal update for information.

### CARRIED.

It is noted that there were some technical difficulties observed at this time which had to do with the speakers in the board room affecting those online. The order of the presentations was reverse to address this issue. As well, it was discovered after the following presentation that the slides were not advanced on the recorded presentation. A copy of the presentation will be included in the minutes on the website. b) Natural Hazards Presentation Series – Part 4: Floodplains Part 2

Ken Thajer, Planning and Regulations Coordinator, provided an information session on natural hazards regulated under the *Conservation Authorities Act* and focused this month's talk on floodplains. Staff provided a presentation on legislation pertaining to development in the floodplain. He also spoke about specific GRCA requirements for permitting and *Planning Act* applications in or near the floodplain in addition to different types of flood proofing.

#### **View Presentation**

GRCA 31/23	
MOVED BY:	Miriam Mutton
SECONDED BY:	Adam Pearson

**THAT** the Ganaraska Region Conservation Authority receive the presentation for information. **CARRIED**.

c) Clean Water – Healthy Land (CWHL) Stewardship Program 2023 Update

Pam Lancaster, Conservation Lands Coordinator, provided the Board of Directors with an update on the CWHL program for 2023. She that over 25,000 trees were planted and/or distributed this year and today there have been 9 projects approved amongst the participating municipalities of Hamilton Township, Municipality of Port Hope, Municipality of Clarington and Town of Cobourg.

GRCA 32/23	
MOVED BY:	Joan Stover
SECONDED BY:	Adam Pearson

**THAT** the Ganaraska Region Conservation Authority receive the presentation regarding natural hazards for information. **CARRIED**.

8. Correspondence None.

<u>9. Applications under Ontario Regulation 168/06:</u> Permits approved by Executive:

GRCA 33/23MOVED BY:Randy BarberSECONDED BY:Willie Woo

**THAT** the Ganaraska Region Conservation Authority receive the permits for information. **CARRIED.** 

Permit Application requiring Ganaraska Region Conservation Authority Board of Directors discussion:

None.

#### 10. Committee Reports:

a) Ganaraska Forest Recreational Users Committee Minutes – June 1, 2023 Miriam Mutton asked about the mounting blocks in the horse trailer parking lot. Staff explained this would be part of a trail maintenance agreement.

GRCA 34/23	
MOVED BY:	Vicki Mink
SECONDED BY:	Bruce Buttar

**THAT** the Ganaraska Region Conservation Authority receive the Ganaraska Forest Recreational Users Committee Minutes – June 1, 2023 for information. **CARRIED.** 

<u>11. New Business:</u> None.

12. Other Businessa) Conservation Lands StrategyGRCA 35/23MOVED BY:Joan StoverSECONDED BY:Adam Pearson

**THAT** the Ganaraska Region Conservation Authority receive the staff report for information. **CARRIED.** 

<u>13. Public Question Period</u> None.

<u>14. In Camera</u> None.

15. Adjourn

GRCA 36/2023MOVED BY:Adam PearsonSECONDED BY:Bruce Buttar

**THAT** the meeting adjourned at 4:47 p.m. **CARRIED.** 

#### CHAIR

### CAO/SECRETARY-TREASURER



### Natural Hazards Presentation Series -Part 4: Flood Plains – Part 2

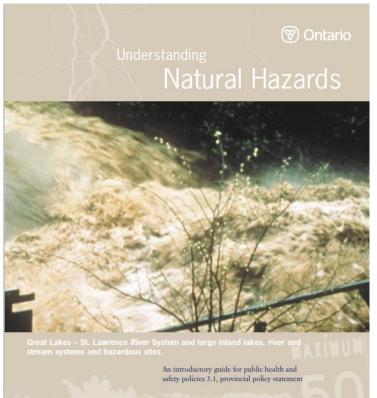
Ken Thajer, MCIP, RPP Planning and Regulations Coordinator

> GRCA Board Meeting June 15, 2023



# Outline

- Background
- Section 28 of the Conservation Authorities Act
- Natural Hazards Presentation Series
- Overview of Flood Plain Hazards
- Conclusion





# Background

- Conservation Authorities Act enacted in 1946 in response to erosion and drought concerns. These issues are best managed on a watershed basis.
- It provided the means by which the province and the municipalities could join together to form a Conservation Authority within a specified area - the watershed - to undertake programs for natural resource management.
- The Conservation Authorities Act and corresponding regulations are designed to protect people and property from flooding and erosion hazards
- Development and construction within hazardous lands is costly to build and requires maintenance
- Good planning saves the taxpayer significant dollars



## Section 28 of the Conservation Authorities Act

- In 1956, in response to devastating impacts from Hurricane Hazel, amendments to the Conservation Authorities Act empowered Conservation Authorities to create regulations to prohibit filling in floodplains
- Regulations were broadened in 1960 to regulate the placing or dumping of fill
- In 1968, amendments to the Conservation Authorities Act further extended the regulations to prohibit or control construction and alteration to waterways, in addition to filling.
- In 1995, an MOU was signed by Province delegating commenting role for Natural Hazards from MNR to the Conservation Authorities for planning matters.



## Section 28 of the Conservation Authorities Act

- In 1998, the Conservation Authorities Act was amended to ensure that regulations were consistent across the province and complementary to provincial policies.
- In 2004, Ontario Regulation 97/04 was approved and outlined the content that each Conservation Authority's Regulation would contain. The amendments required all Conservation Authorities to regulate Great Lakes shorelines, interconnecting channels, inland lakes and wetlands in addition to the areas and features each Conservation Authority historically regulated.
- In 2006, each CA had their revised regulations approved (to match wording of Regulation 97/04).



### Natural Hazards Presentation Series

Over the coming months, staff will provide an overview of the various hazardous areas in which CAs regulate development and activities:

- In or adjacent to river or stream valleys (Section 2(1)(b))
- Adjacent or close to the shorelines of the Great Lakes and inland lakes (Section 2(1)(a))
- Watercourses (Section 5)
- Hazardous lands (Section 2(1)(c))
- Wetlands (Sections 2(1)(d) and 5)
- Other Areas that could interfere with the hydrologic function of a wetland (Section 2(1)(e))

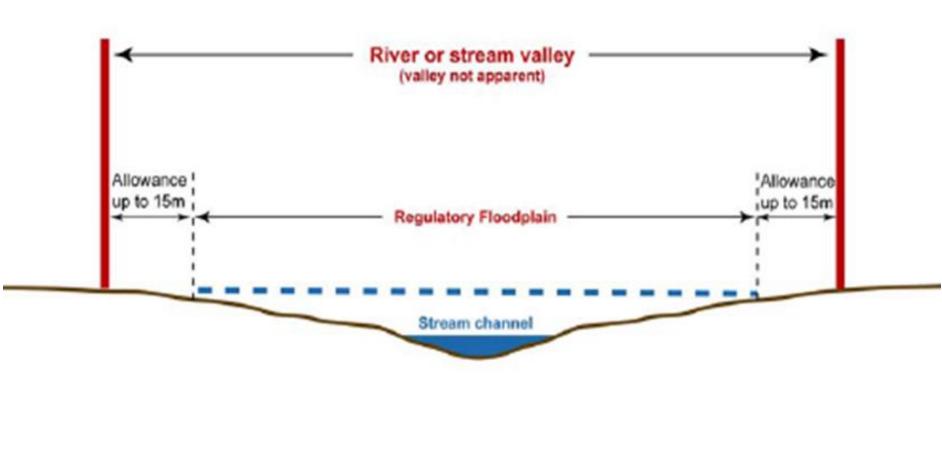


### **Overview of Flood Plain Hazards**





### **Regulatory Flood Plain**





### **Overview of Flood Plain Hazards**

MNRF Defines Flood Standards for River Systems in Ontario

The flooding hazard limit is the greater of:

- i. the flood resulting from the **Hurricane Hazel** storm (1954) transposed over a specific watershed and combined with the local conditions, where evidence suggests that the storm event could have potentially occurred over watersheds in the general area;
- ii. the one hundred year flood; or
- iii. a flood which is greater than i) or ii) which was actually experienced on a particular watershed or portion thereof, or a Special Policy Area (SPA) approved by the Ministers of Natural Resources and Municipal Affairs and Housing. Storm standard identified in SPA.



## **Flood Plain Development**

- In general GRCA does not support new development within the floodplain except in certain circumstances.
- No institutional, emergency services or hazardous material permitted within the floodplain.
- Require development outside floodplain where feasible, or in area of least risk.
- GRCA has specific criteria for development within the floodplain.
  - Safe access criteria may need to be addressed.
  - Specific policy & technical requirements must be addressed.

### Policies for the Implementation of Ontario Regulation 168/06

Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation

> January 2014 Board Resolution FA 04/14





## **Planning Act Applications**

- GRCA is responsible for commenting on Section 3.1 of the Provincial Policy Statement for *Planning Act* applications.
- No new property lines crossing/bisecting/fragmenting the floodplain. All new lots to be created must be entirely outside the floodplain.
- GRCA may support some applications, such as minor variances, for existing development in the floodplain, but it must be demonstrated that the structure can meet GRCA floodplain development criteria. A detailed technical submission would be provided in the permitting stage.

3.1.2 Development and site alteration shall not be permitted within:

- a) the dynamic beach hazard;
- b) *defined portions of the flooding hazard along connecting channels* (the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers);
- c) areas that would be rendered inaccessible to people and vehicles during times of *flooding hazards, erosion hazards* and/or *dynamic beach hazards,* unless it has been demonstrated that the site has safe access appropriate for the nature of the *development* and the natural hazard; and
- d) a *floodway* regardless of whether the area of inundation contains high points of land not subject to flooding.



## Floodplain Development Survey

- Floodplain mapping is very important as it determines the location of the extent of the floodplain.
- Notwithstanding having floodplain mapping, GRCA requires a survey by an Ontario Land Surveyor (OLS) or Professional Engineer (P. Eng.) for development within, or in close proximity, to the floodplain.

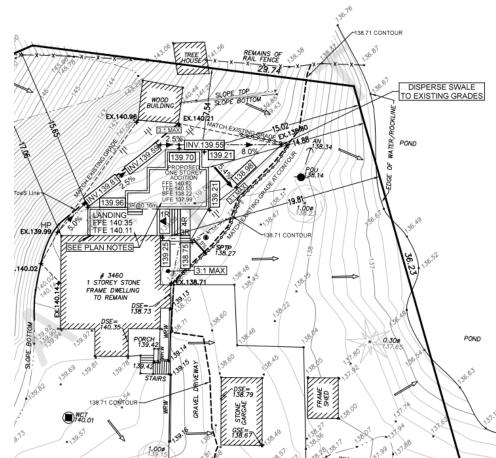




## Survey

Reasons for requiring a survey:

- Establishes building envelope;
- To determine the exact depth of flooding on the property;
- To determine new lot lines/limits;
- Assists engineering consultant with designing floodproofing;
- To determine if changes to grade are proposed;
- Necessary to show elevations of openings (doors, windows, vents, etc.);
- Ensures proponent is not grading into the floodplain.





## Wet vs. Dry Flood Proofing

- For habitable structures (including seasonal cottages), GRCA requires dry, passive floodproofing. Passive meaning no openings, regardless of being sealed.
- For non-habitable structures (sheds, barns, garages, workshops), GRCA recommends dry-floodproofing, where feasible, or wet-floodproofing at a minimum.
- To convert a non-habitable structure into a habitable structure, the proponent would need to demonstrate the structure can be dry-floodproofed.



## **Dry Flood Proofing**

- Staff refer to the MNRF Technical Guide.
- Standard wall construction provides inferior defence against flooding. Susceptible to leakage, hydrostatic pressures and structural failure.
- Required for all habitable structures in one-zone floodplains.
- Survey by OLS/P.Eng. required to confirm grades/openings.
- Wall and basement reinforcement required.
  - E.g.: Extra concrete, thicker walls reinforced with rebar.
- All openings (windows, doors, vents) to be 0.3m above the floodplain. This includes proposed additions to existing structures.
- No basements should be within the floodplain.
- Design must be completed by a Professional Engineer.
  Final drawings must be stamped by a P. Eng.
- Dry flood proofing can be expensive.



## **Hydrostatic Pressures**

- The most important consideration in floodproofing design.
- Correlated with flood depth and saturated soil depth in contact with a structure.
- Equal in all directions and acts perpendicular to a given surface.
- Can be defined into vertical or down, horizontal or lateral, and uplift or buoyant pressures.
- These pressures can cause the structure to heave, rupture or float.

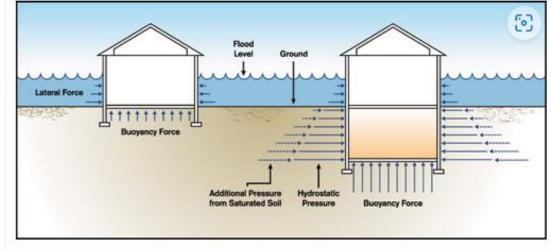


Photo by Smart Vent Products, Inc.



## Wet Flood Proofing

- Staff refer to the MNRF Technical Guide.
- Required, to some extent, for all structures in the floodplain.
- Allows water to enter, move within and exit a structure to prevent hydrostatic pressures (lateral and buoyant).
- GRCA looks for openings (upstream and downstream) to allow water to enter and leave structure.
- May require anchoring to the ground.
- GRCA *may* require survey information and engineering – depending on the project.

### 🕅 Ontario

Technical Guide River & Stream Systems: Flooding Hazard Limit



Ontario Ministry of Natural Resources Water Resources Section 100 W ater Street, 5 <sup>th</sup> Floor, South Tower, P.O. Box 7000 Peterborough, Ontario K9J 8M5



## **Special Policy Area (SPA)**

- Development may be permitted within the floodplain in the exceptional circumstance where a SPA has been approved by the Ministers of Natural Resources & Forestry and Municipal Affairs and Housing.
- SPA policies are located within the Official Plan and GRCA policy document.
- Cobourg and Port Hope have SPAs within their downtowns.
- These areas are subject to a lesser standard of floodplain development than one-zone floodplains. However, given this, strict adherence to the SPA is in effect.
   GRCA staff cannot deviate from the policies within the SPA.





### **Floodplain Spills**

 Spills occur in unconfined systems when flood waters 'back up' behind undersized bridges or culverts
 This example shows Cobourg Creek spilling from Sinclair Park/Harden Street into adjacent residential area

## **Other Floodplain Considerations**

- Berms and walls to divert floodplain are generally not supported as they could displace water elsewhere onto other properties.
- Development in floodplains may cause floodplain displacement. It may be required to demonstrate, through an engineering study, that there will be no measurable impacts to the floodplain as a result of the proposed development.
- Cut and fill may be considered in certain circumstances and where there is available land (eg: filling in the floodplain and cutting elsewhere to allow for flood storage). This must be undertaken through detailed engineering analysis.





## Thank you!

