

LAKE ONTARIO SHORELINE MANAGEMENT PLAN HAZARD MAPS

Ganaraska Region Conservation Authority (GRCA)

LEGEND:

Hazard Mapping:

- 100 Year Flood Level
- Flood Hazard Limit
- Erosion Hazard Limit
- Dynamic Beach Setback

DEFINITIONS:

100 Year Flood Level
The 100 Year Combined Flood Level considers both static lake level and storm surge, having a combined probability of being equalled or exceeded during any year of 1% (i.e., probability, P =0.01). The 100 Year Combined Flood Level elevation for GRCA is +76.01 m IGLD85 (+75.55 m to +75.60 m CGVD2013).

Flood Hazard Limit
The Flood Hazard Limit is defined as the 100-Year Flood Level plus an allowance for wave runup and uprush. For the exposed shoreline, wave effects are calculated based on localized nearshore conditions and waves. For embayments, the standardized 15 m setback is applied. Refer to the Lake Ontario Shoreline Management Plan for additional details.

Toe of Bluff
The Toe of Bluff is the transition from the gently sloping beach to the steep portion of the bank or bluff slope.

Stable Slope Allowance
The Stable Slope Allowance is defined as a horizontal setback equivalent to 3.0 times the height of the bank or bluff.

Erosion Hazard Limit
The landward extent of the Erosion Hazard is the sum of the 100 year erosion rate plus the Stable Slope Allowance, measured horizontally from the toe of the bank or bluff.

The Erosion Hazard Limit is not mapped in sheltered waters, however, localized shoreline/riverine erosion may occur and is subject to review by the Conservation Authority.

Dynamic Beach Hazard Limit
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- Base Mapping:
- Geographical Names
 - Dynamic Beach (Start Pt)
 - Dynamic Beach (End Pt)
 - Road Network
 - GRCA Administrative Boundary

INTERPRETATION OF THE HAZARD MAPS:
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DATA SOURCES:

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Inset Map: © OpenStreetMap contributors

Datums:
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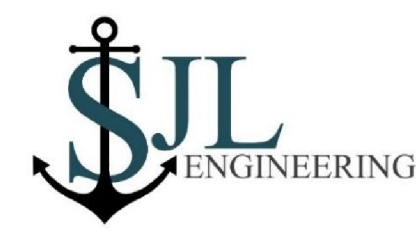
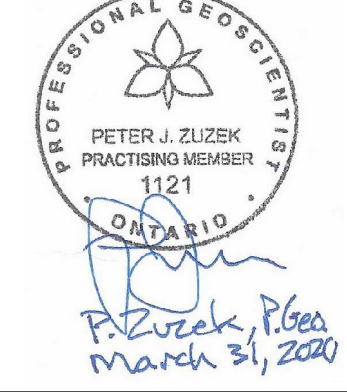

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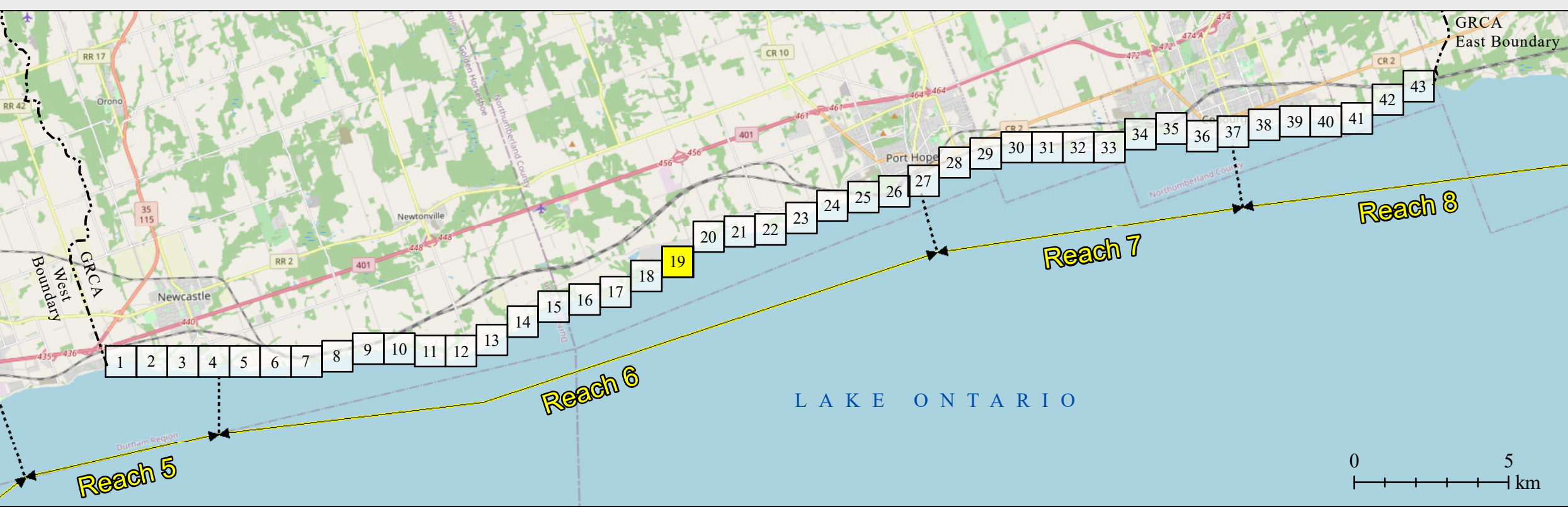
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PREPARED BY:



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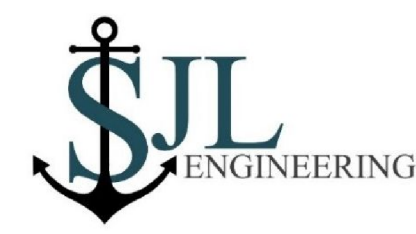


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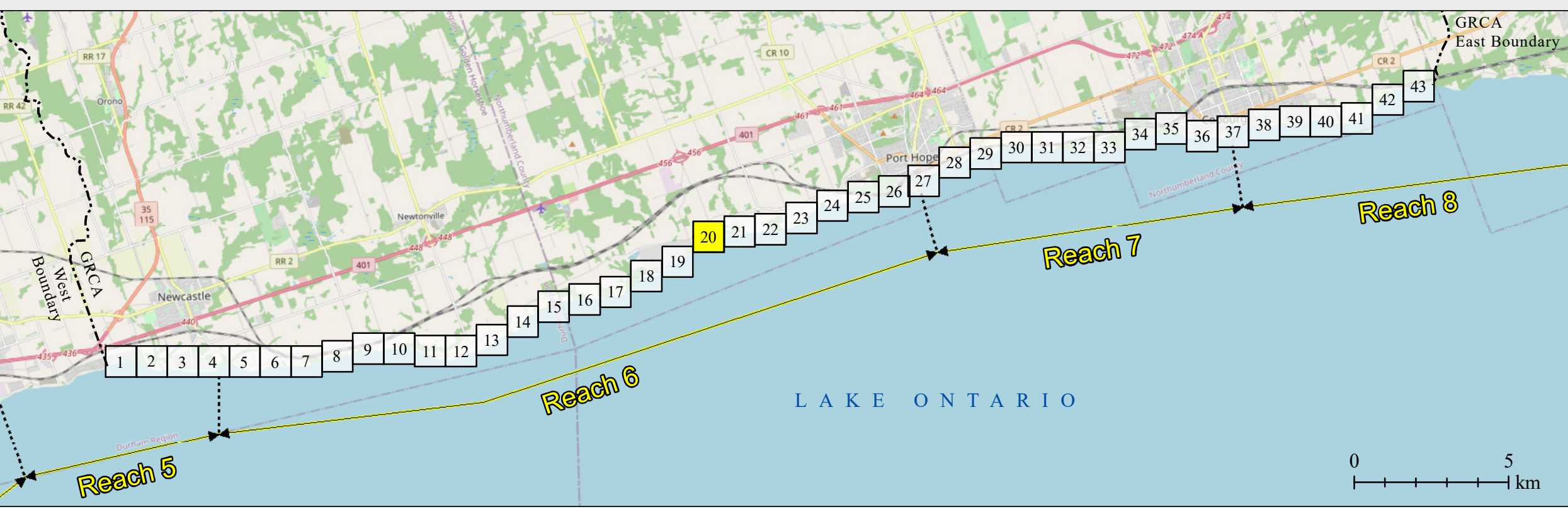
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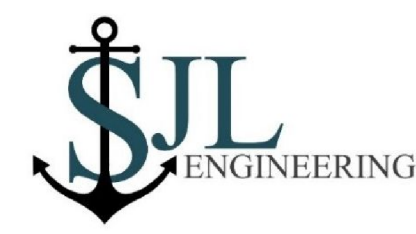


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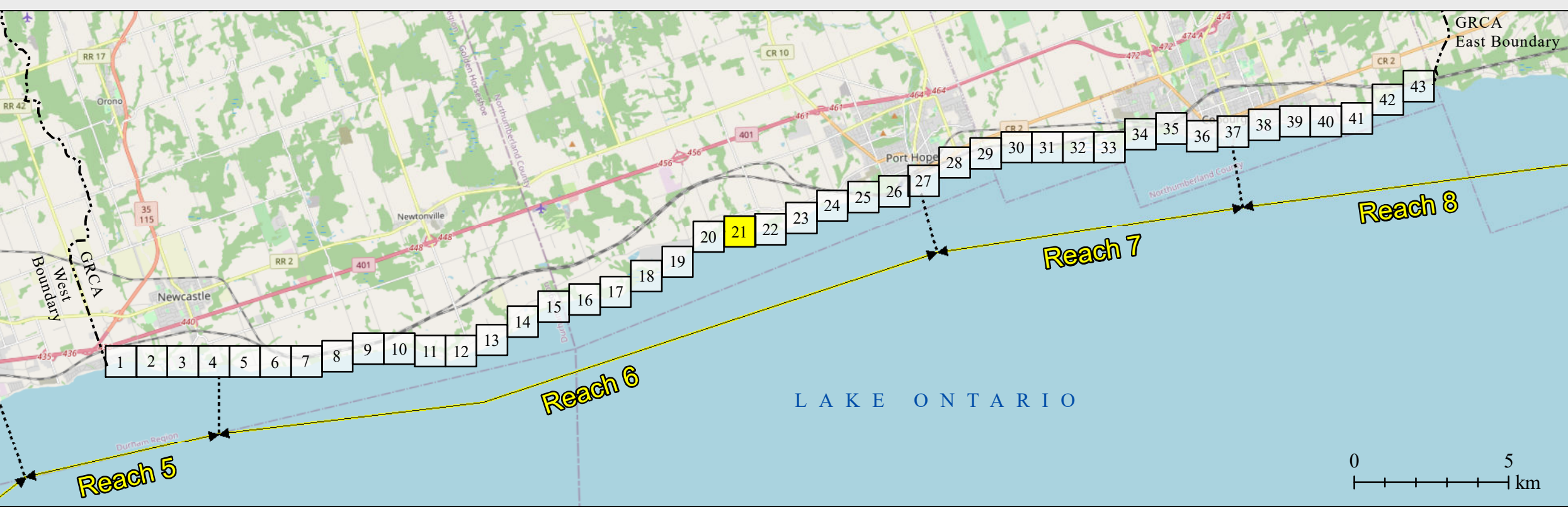
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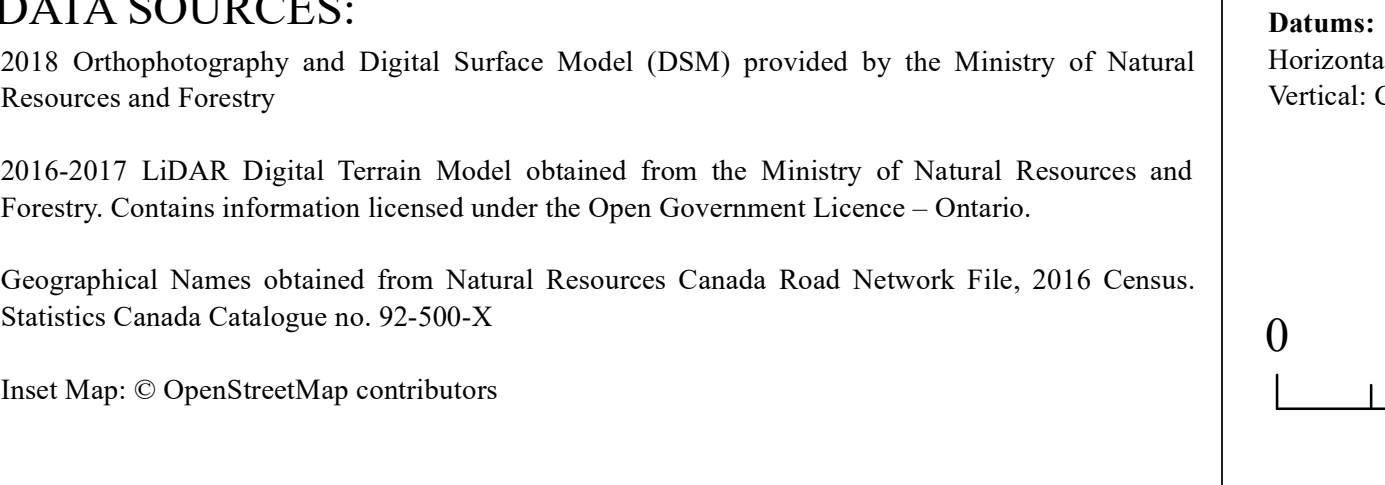
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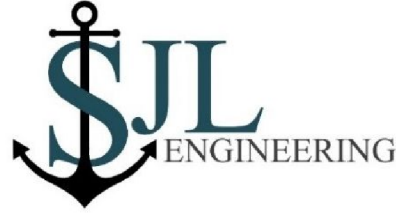
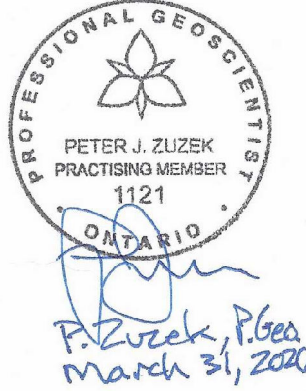
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GRCA Map
22 of 43

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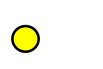



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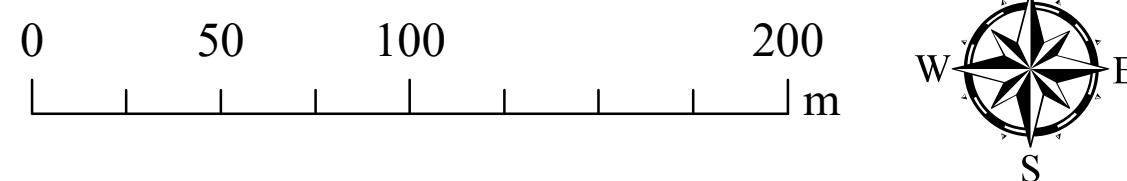
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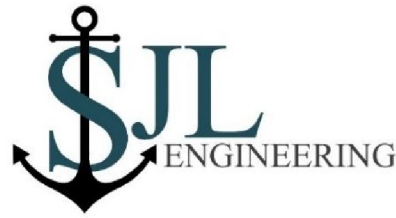
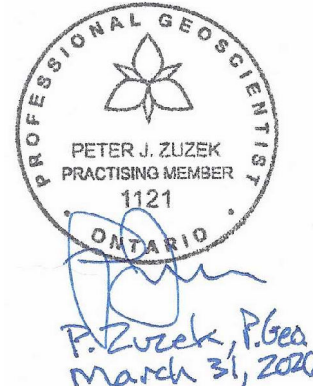
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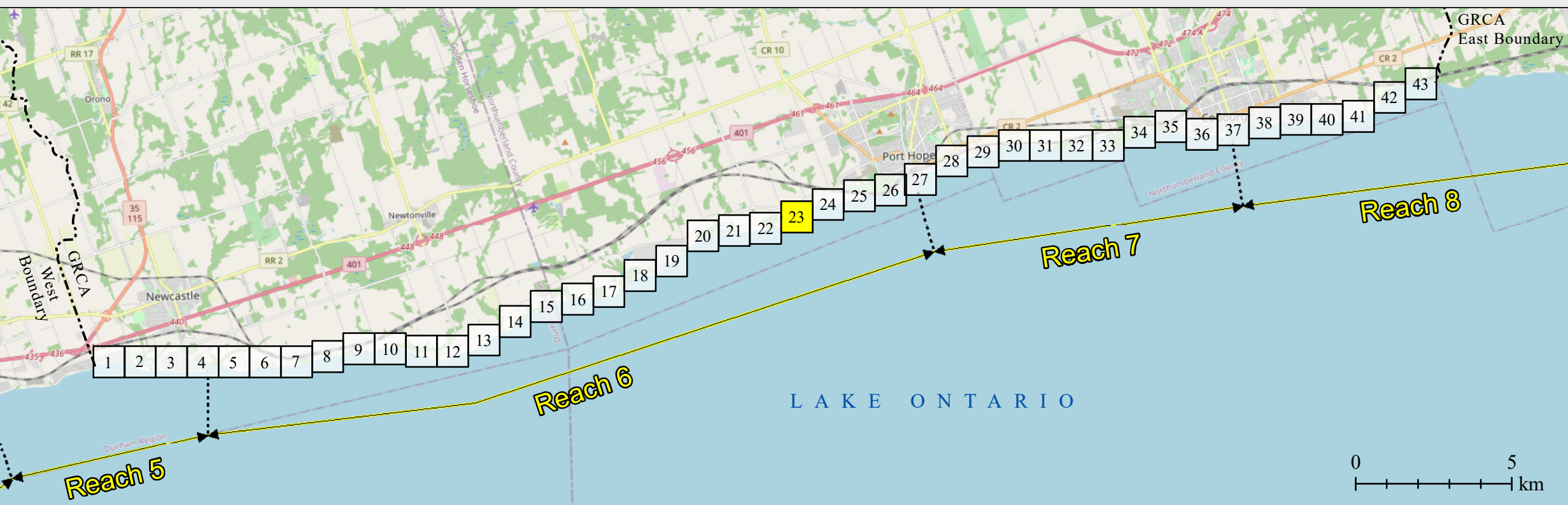


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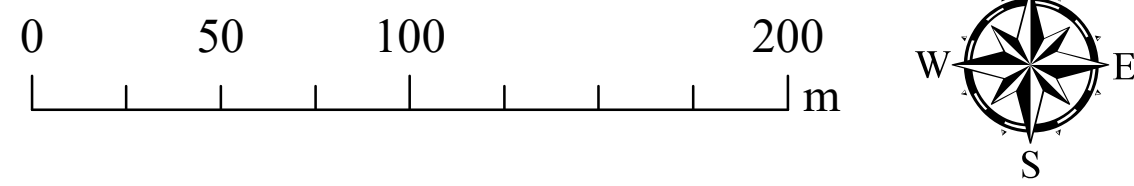
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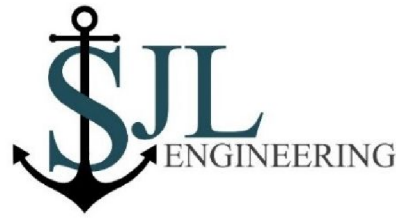
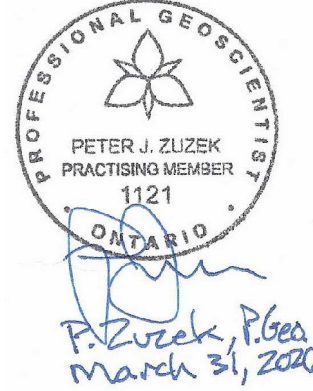
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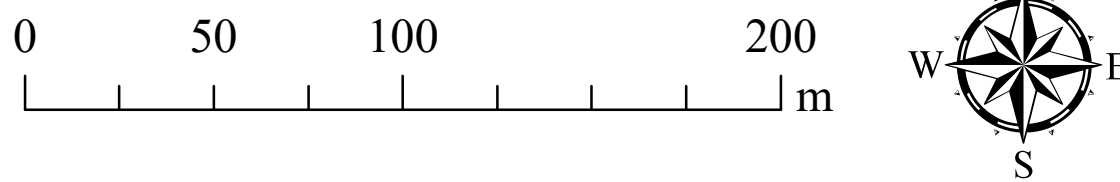
The Erosion Hazard Limit is not mapped in sheltered waters, however, localized shoreline/riverine erosion may occur and is subject to review by the Conservation Authority.

Dynamic Beach Hazard Limit

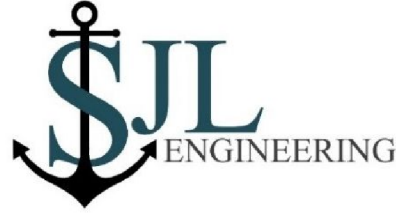
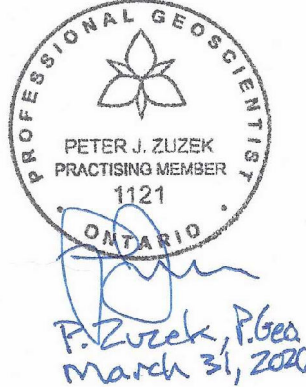
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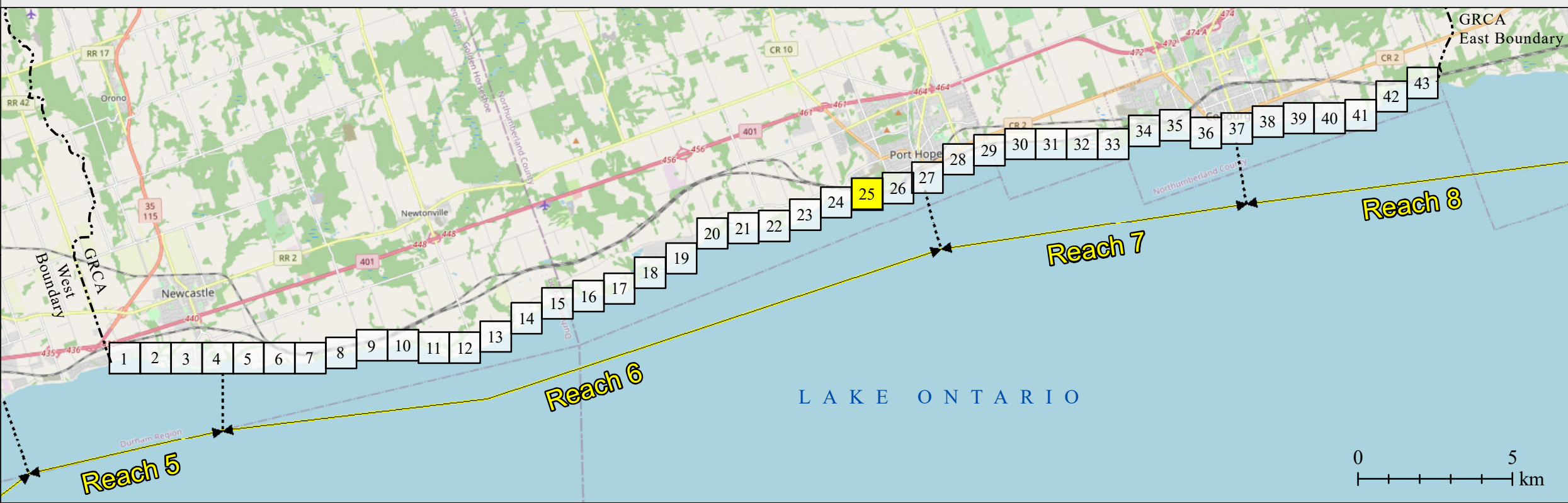


PREPARED BY:



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MAP PUBLISHED MARCH 2020



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GRCA Map
25 of 43

LAKE ONTARIO SHORELINE MANAGEMENT PLAN HAZARD MAPS


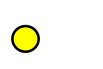



Ganaraska Region Conservation Authority (GRCA)

LEGEND:

Hazard Mapping:

-  100 Year Flood Level
-  Flood Hazard Limit
-  Erosion Hazard Limit
-  Dynamic Beach Setback

Base Mapping:

-  Geographical Names
-  Dynamic Beach (Start Pt)
-  Dynamic Beach (End Pt)
-  Road Network
-  GRCA Administrative Boundary

INTERPRETATION OF THE HAZARD MAPS:

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Inset Map: © OpenStreetMap contributors

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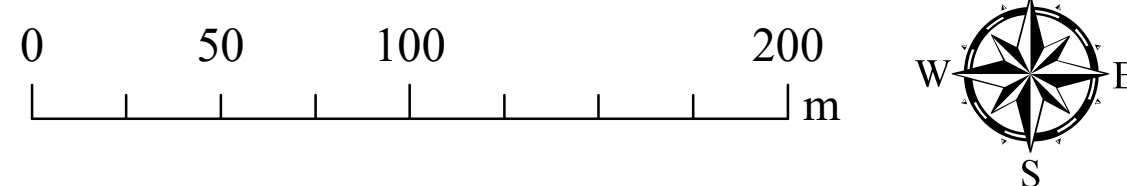
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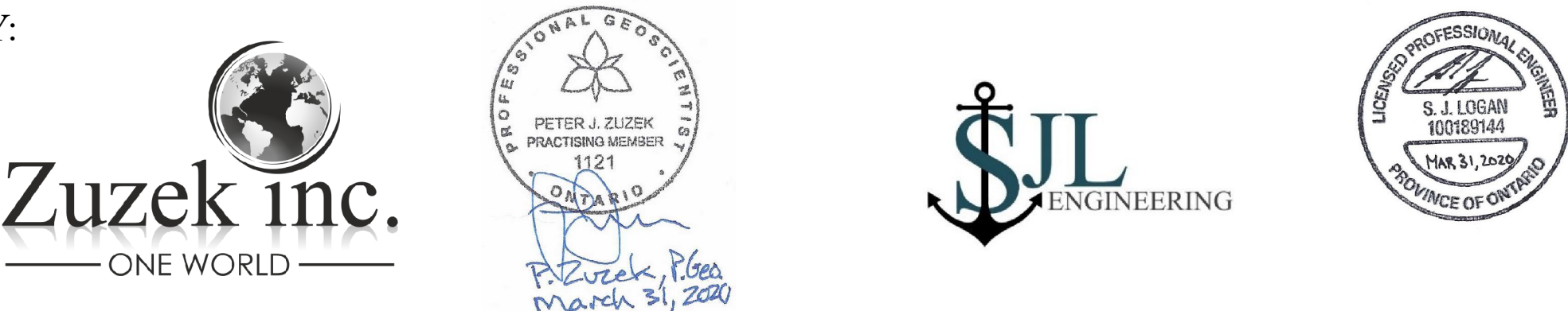
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LAKE ONTARIO SHORELINE MANAGEMENT PLAN HAZARD MAPS






Ganaraska Region Conservation Authority (GRCA)

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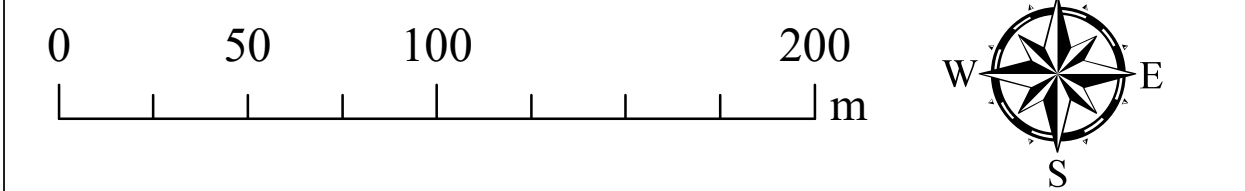
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