

LAKE ONTARIO SHORELINE MANAGEMENT PLAN HAZARD MAPS

Lower Trent Conservation Authority (LTRCA)

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
- LTRCA Administrative Boundary

INTERPRETATION OF THE HAZARD MAPS:

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DATA SOURCES:

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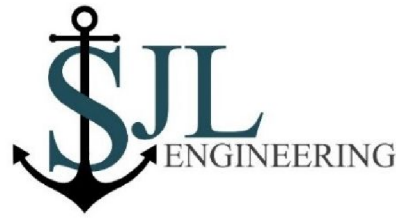
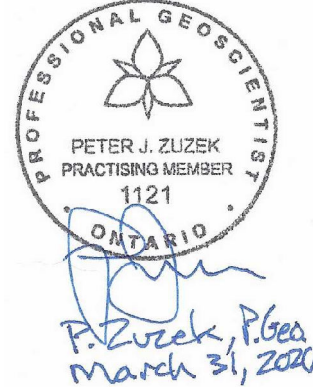
2017 LiDAR Digital Terrain Model obtained from the Ministry of Natural Resources and Forestry. Contains information licensed under the Open Government Licence – Ontario.

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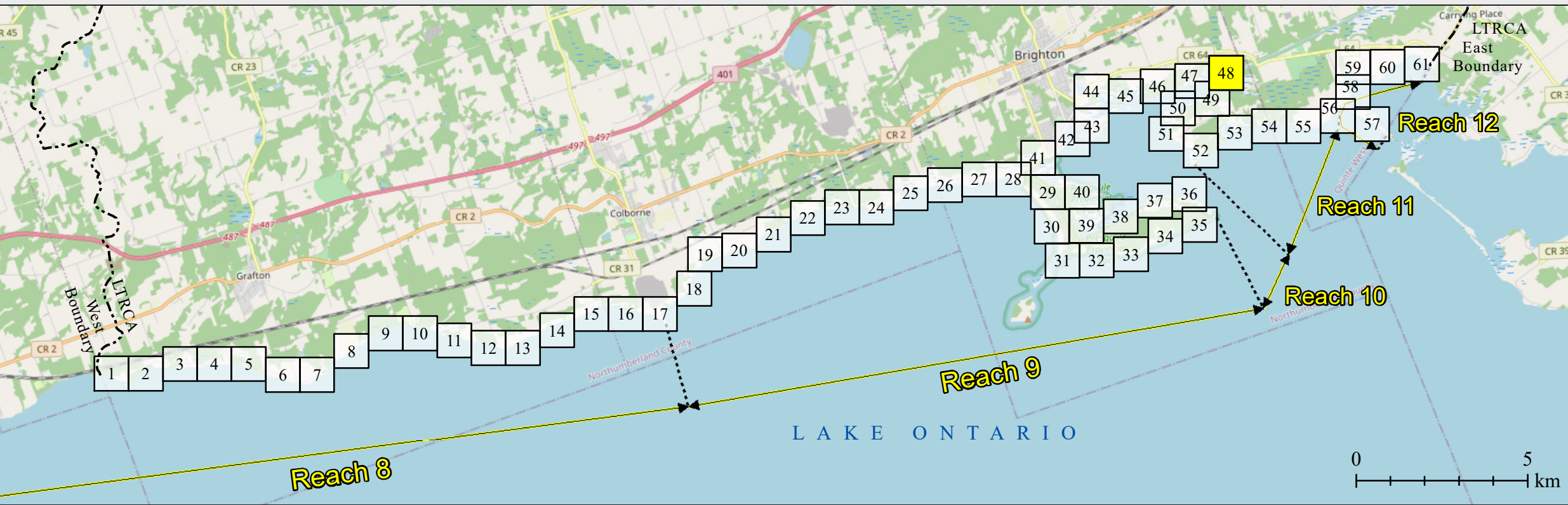
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PREPARED BY:



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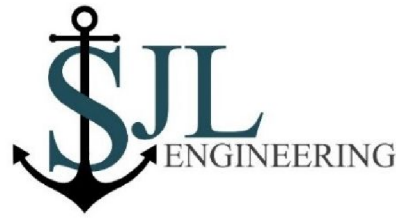
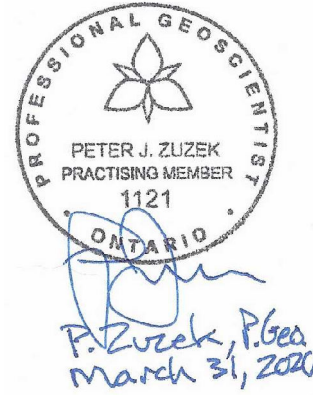
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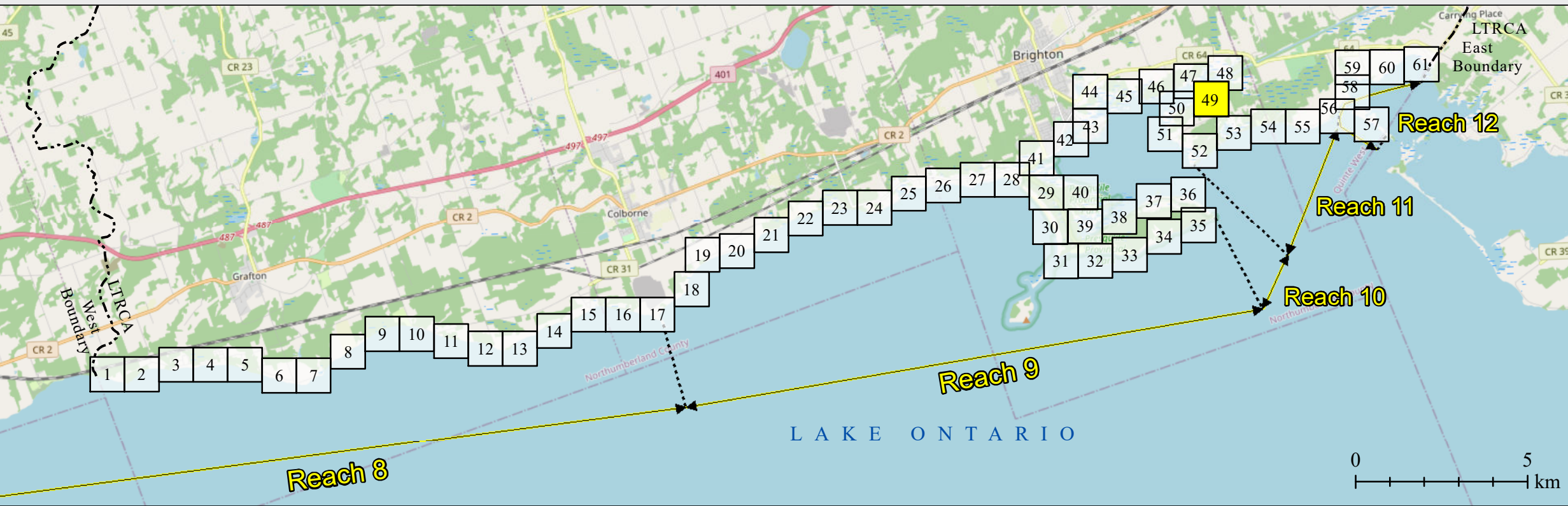
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LTRCA Map
49 of 61

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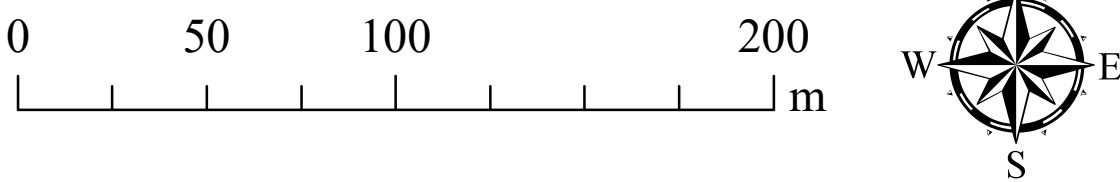
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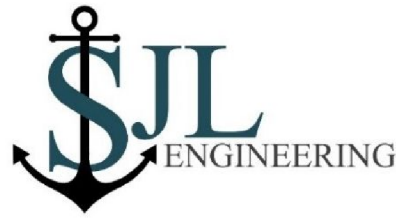
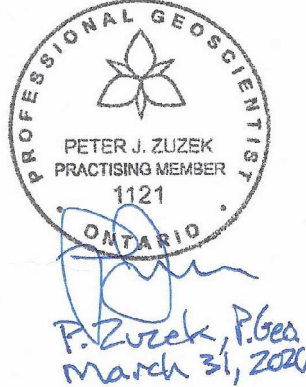
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Datums:
Horizontal: UTM 18N NAD1983, metres.
Vertical: CGVD2013, metres

Datum Conversion:
IGLD1985 - CGVD2013 = 0.41 m (average)
To convert from IGLD85 to CGVD2013, subtract 0.41 m.
Note: There are local variations along the reaches within LTRCA. Refer to the Lake Ontario SMP for additional details.

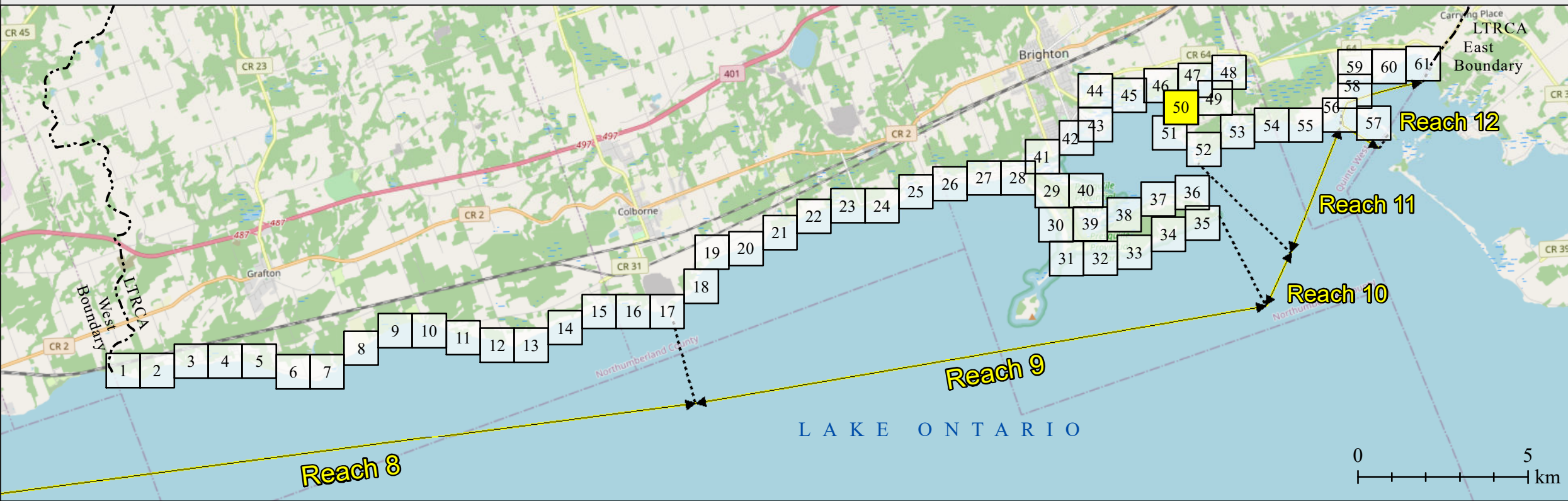


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DEFINITIONS:

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 LTRCA is +76.03 m IGLD85 (+75.62 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.

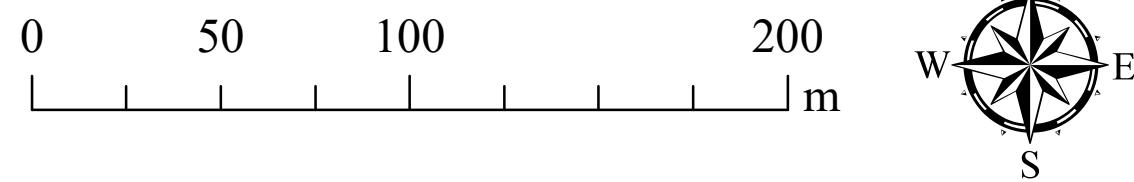
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Dynamic Beach Hazard Limit

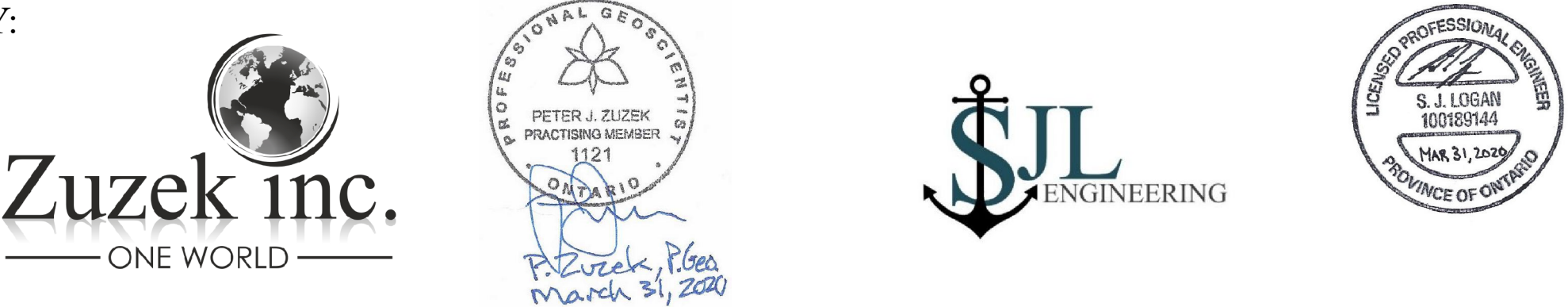
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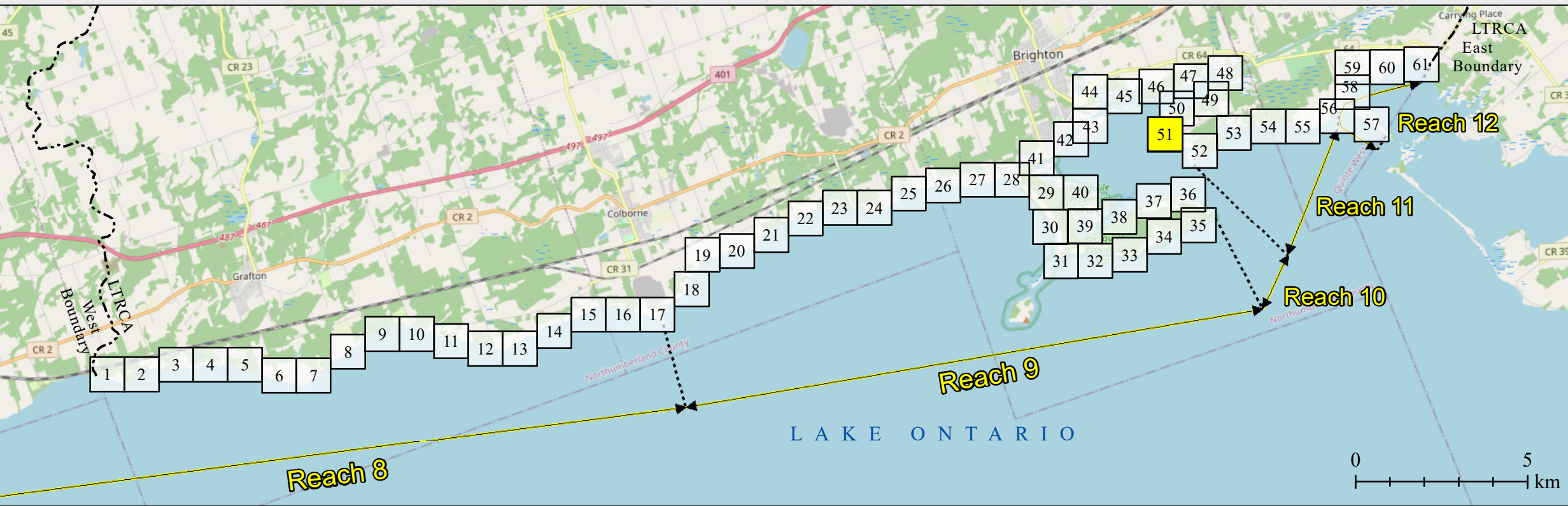


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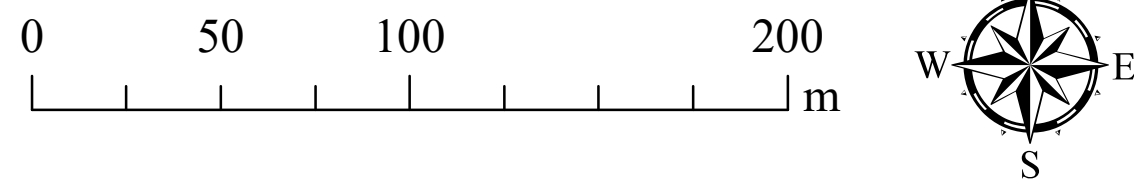
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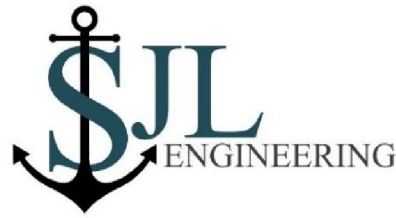
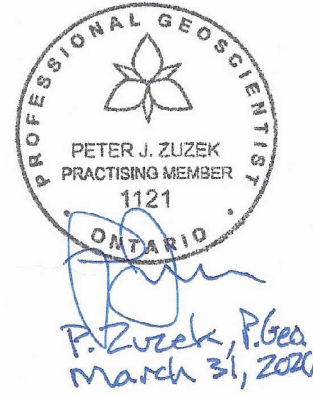
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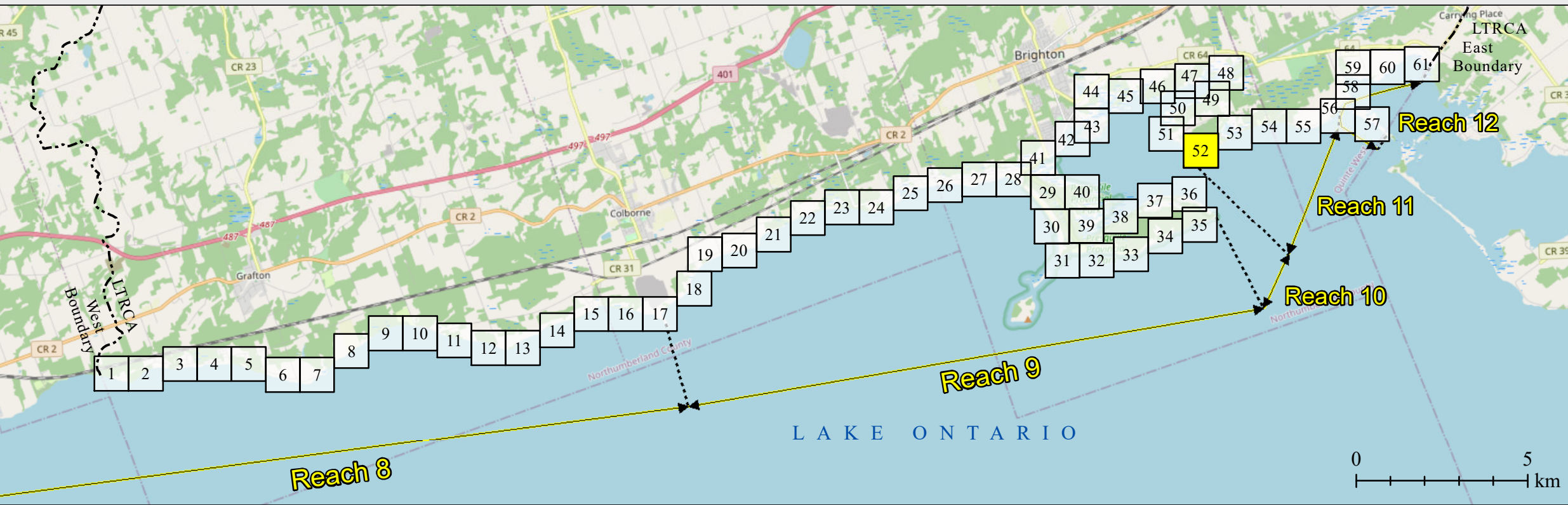


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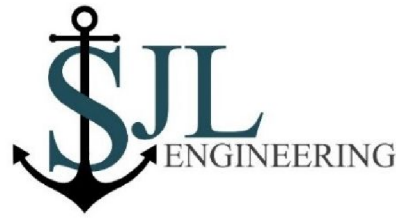
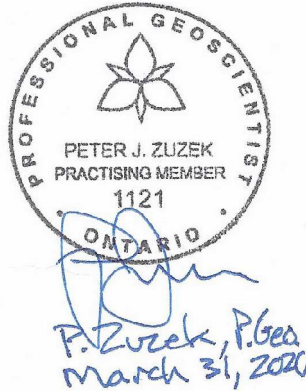
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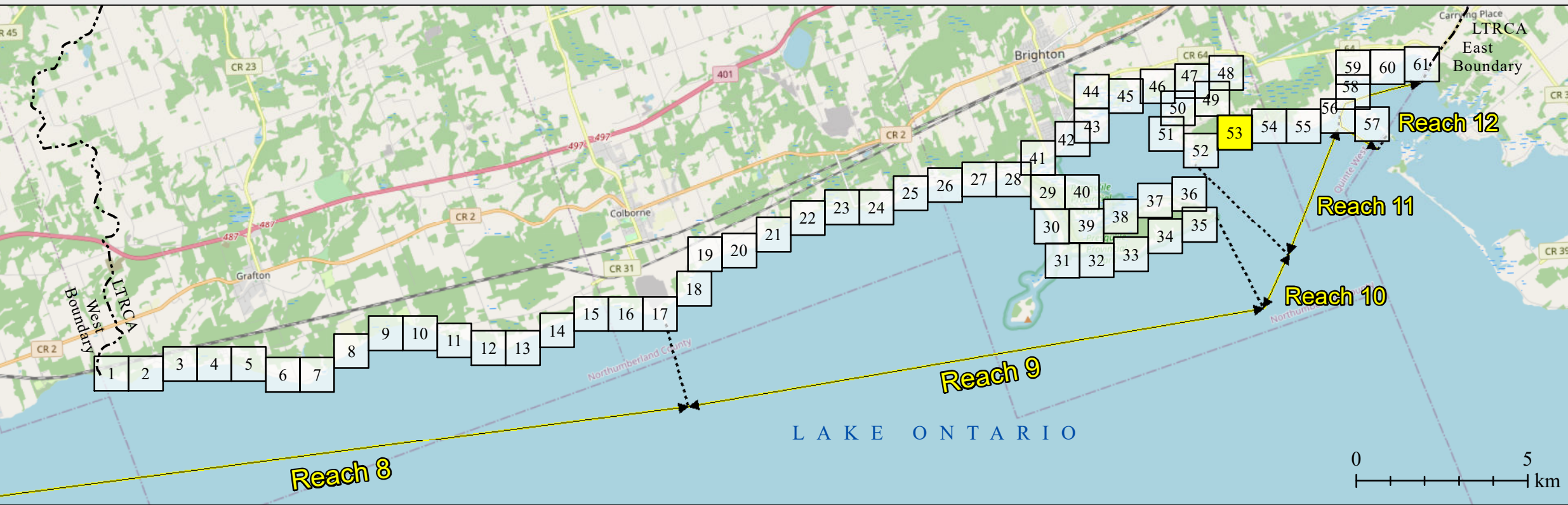
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