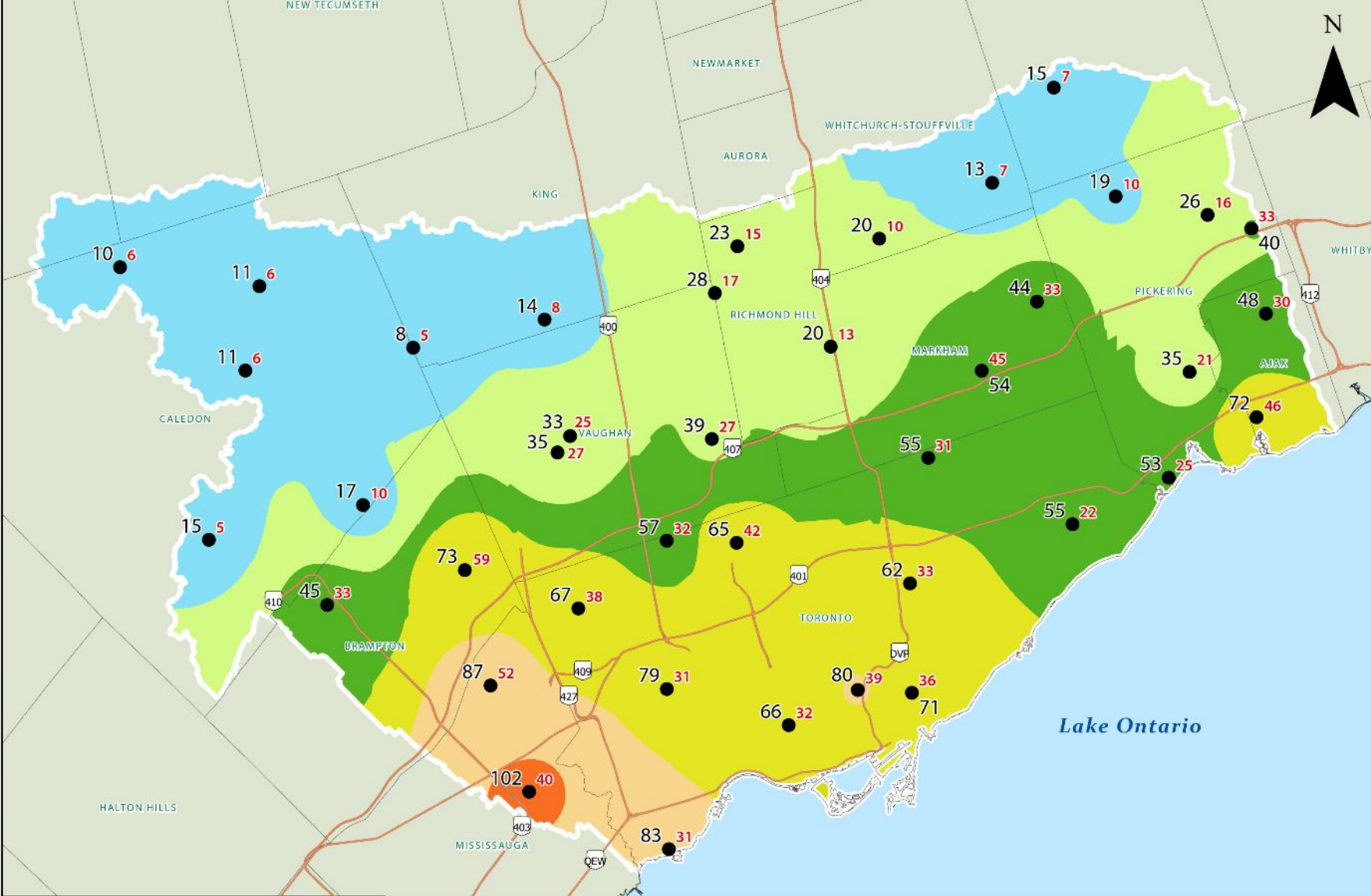


# July & August 2024 Storm Event Summary

July 16, August 17-18 Flooding

Presented By: David Kellershohn – Associate Director, Engineering Services

September 27, 2024



**Forecasted Rainfall:**

- Most likely 15-25 mm, with a maximum of 70-80 mm being possible.
- Forecasts increased and reached a max. of 125 mm.

**Actual Rainfall:**

- 102 mm at Rathwood gauge

July 16, 2024	Total Rainfall	Hourly Intensity
Min	8 mm	5 mm/hr
Avg	43 mm	25 mm/hr
Max	102 mm	59 mm/hr

July 16th, 2024 - Rainfall Storm Event - TRCA Jurisdiction



**Legend:**

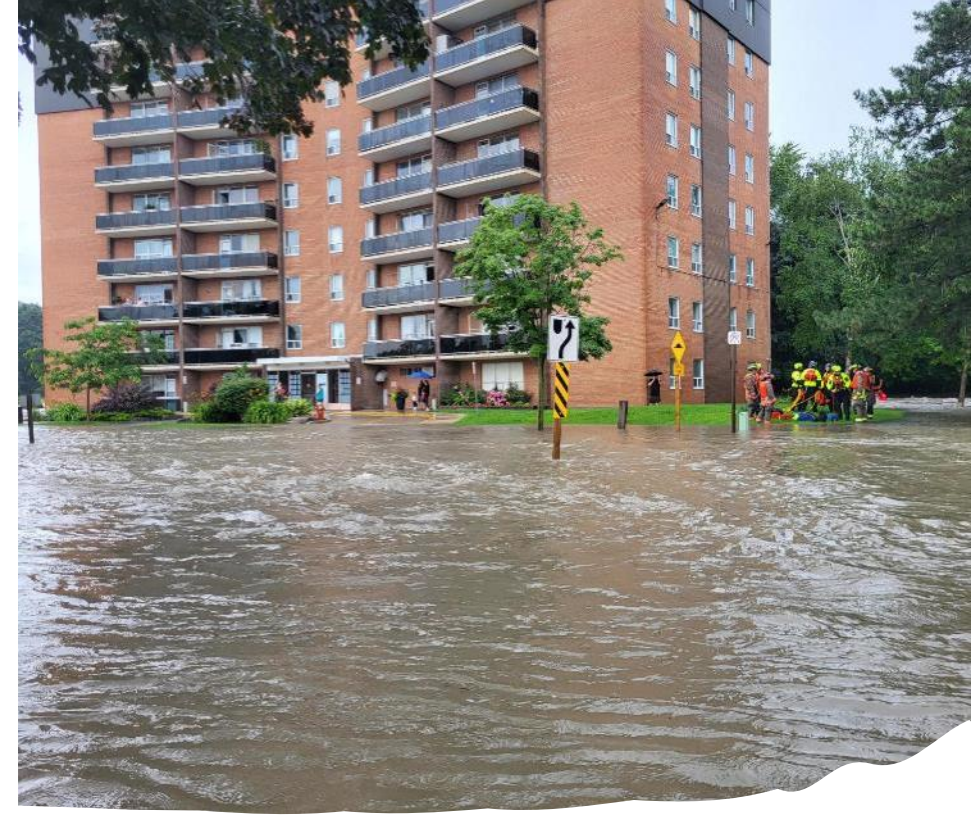
Municipalities (grey outline)  
 Highways (red line)  
 July 16th, 2024, Rain Gauge Measurements - total (mm) in black & Max 1hr intensity (mm/hr) in red (black dot)

**July 16 Storm Event total (mm)**

- <20 (light blue)
- 20 - 40 (light green)
- 40 - 60 (medium green)
- 60 - 80 (yellow-green)
- 80 - 100 (yellow)
- >100 (orange)

Scale: 0 2 4 8 12 16 20 km

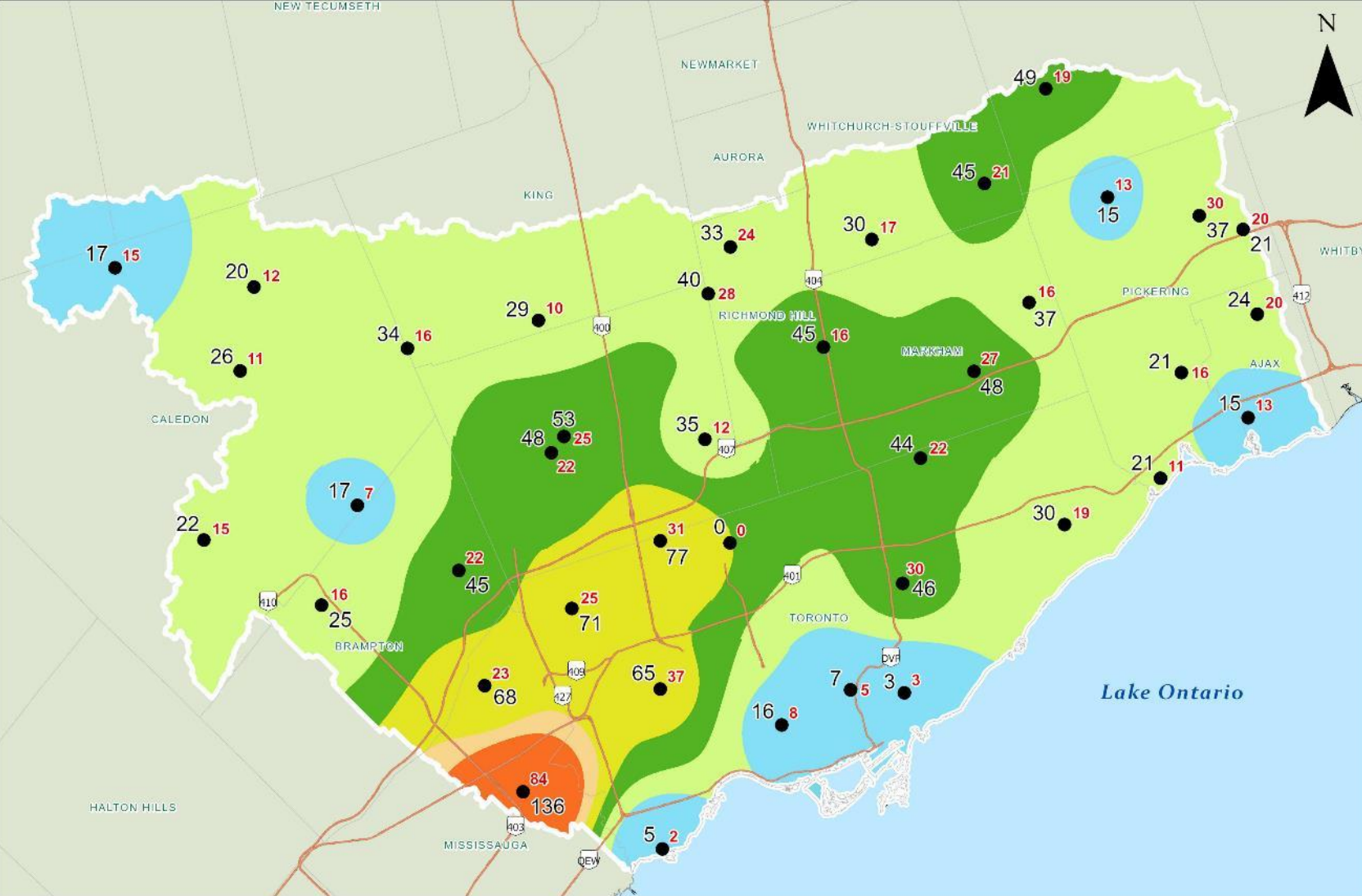
**Disclaimer:**  
 The data used to create this map was compiled from a variety of sources and dates. Toronto and Region Conservation Authority (TRCA) takes no responsibility for errors or omissions in the data and retains the right to make changes and corrections at anytime without notice. For further information about the data on this map, please contact the TRCA Information GIS Department: 416.661.6600  
 Coordinate System: NAD1983 UTM Zone 17N; Projection: Transverse Mercator  
 Date: 8/20/2024



# Little Etobicoke Creek at Dixie Dundas, Mississauga – July 16



## Don River at Dundas and DVP, Toronto – July 16



**Forecasted Rainfall:**

- Most likely 10-20 mm, with a risk of a thunderstorm
- Prediction increased rapidly, reaching as high as a forecast of 100-200 mm.

**Actual Rainfall:**

- 136 mm at Rathwood gauge

August 17, 2024	Total Rainfall	Hourly Intensity
Min	3 mm	2 mm/hr
Avg	36 mm	20 mm/hr
Max	136 mm	84 mm/hr

August 17, 2024 - Rainfall Storm Event - TRCA Jurisdiction

**Legend:**

- Municipalities
- Highways
- Aug 17, 2024, Rain Gauge
- Measurements - total (mm) in black & Max 1hr intensity (mm/hr) in red

**Aug 17 Storm Event Total (mm)**

- <20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100
- >100

**Scale:** 0 2 4 8 12 16 20 km

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*Railway bridge overpass, Dixie Rd south of Dundas St., Mississauga – August 17. Photo credit: G. MacDonald*



*Flooding on Queen Frederica Dr, Mississauga – August 17*

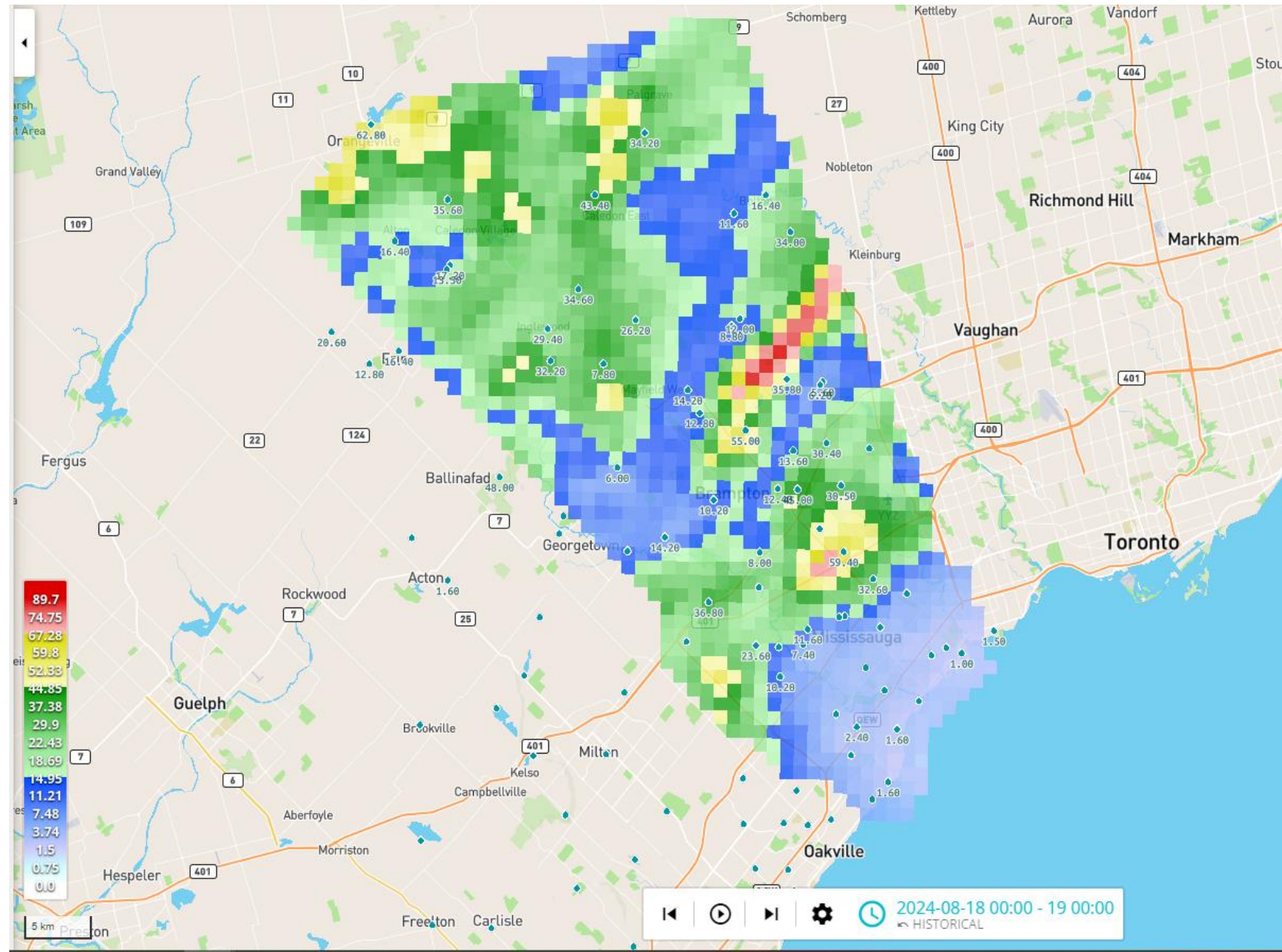


*Flooding on Bayview Ave. extension near Pottery Rd, Toronto – August 17*

## August 17 – Mississauga and Toronto

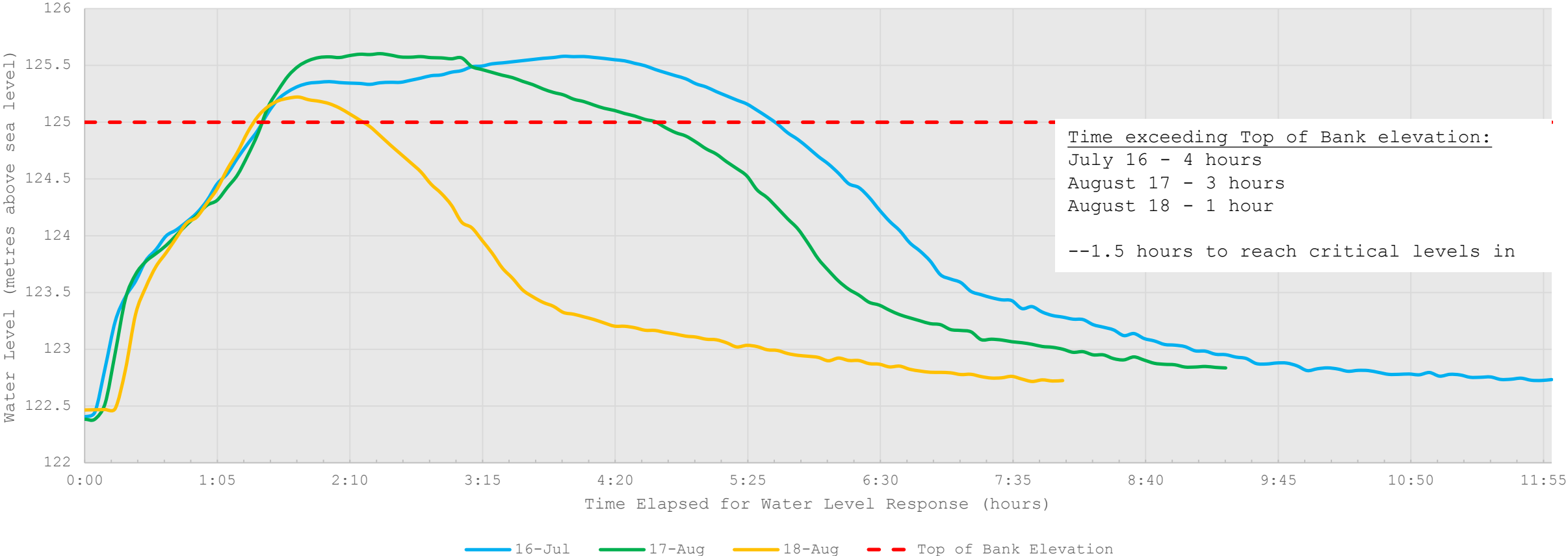
# GARR\* product – August 18, 2024

\*Gauge Adjusted Radar Rainfall



# TRCA Little Etobicoke Stream Gauge Water Level Data

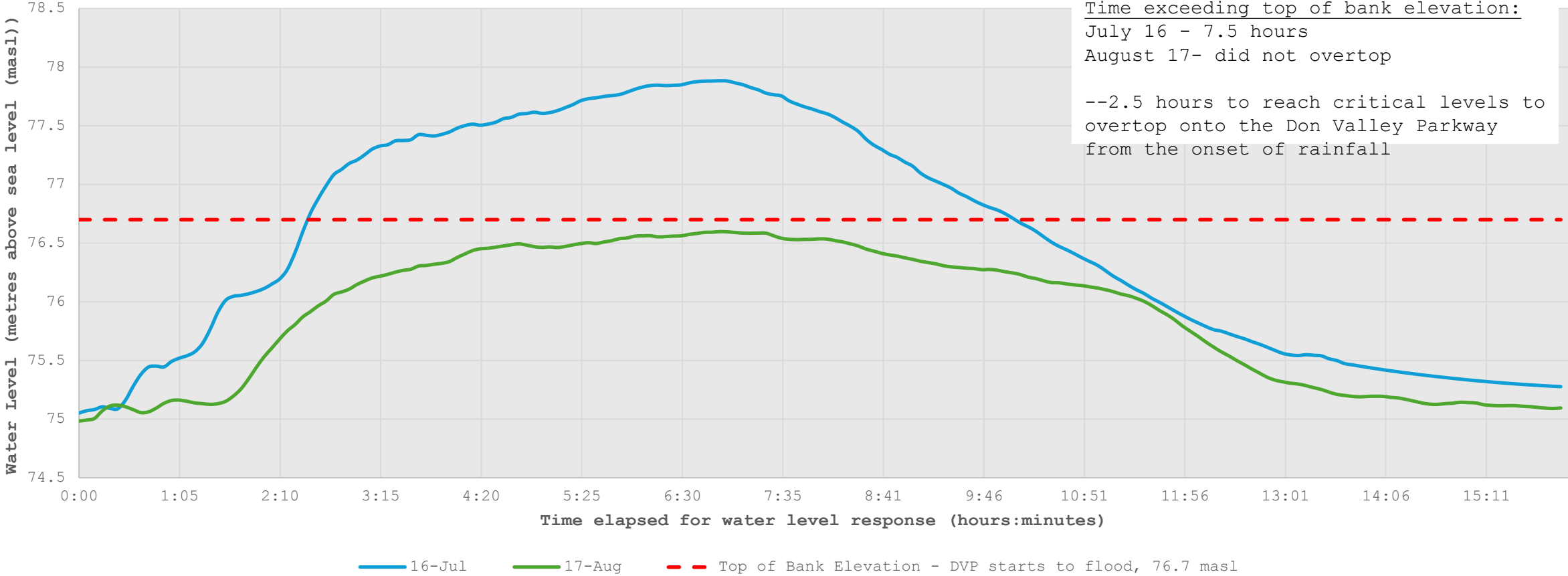
Water Level Comparison at TRCA Little Etobicoke Creek Stream Gauge - July 16, August 17-18, 2024



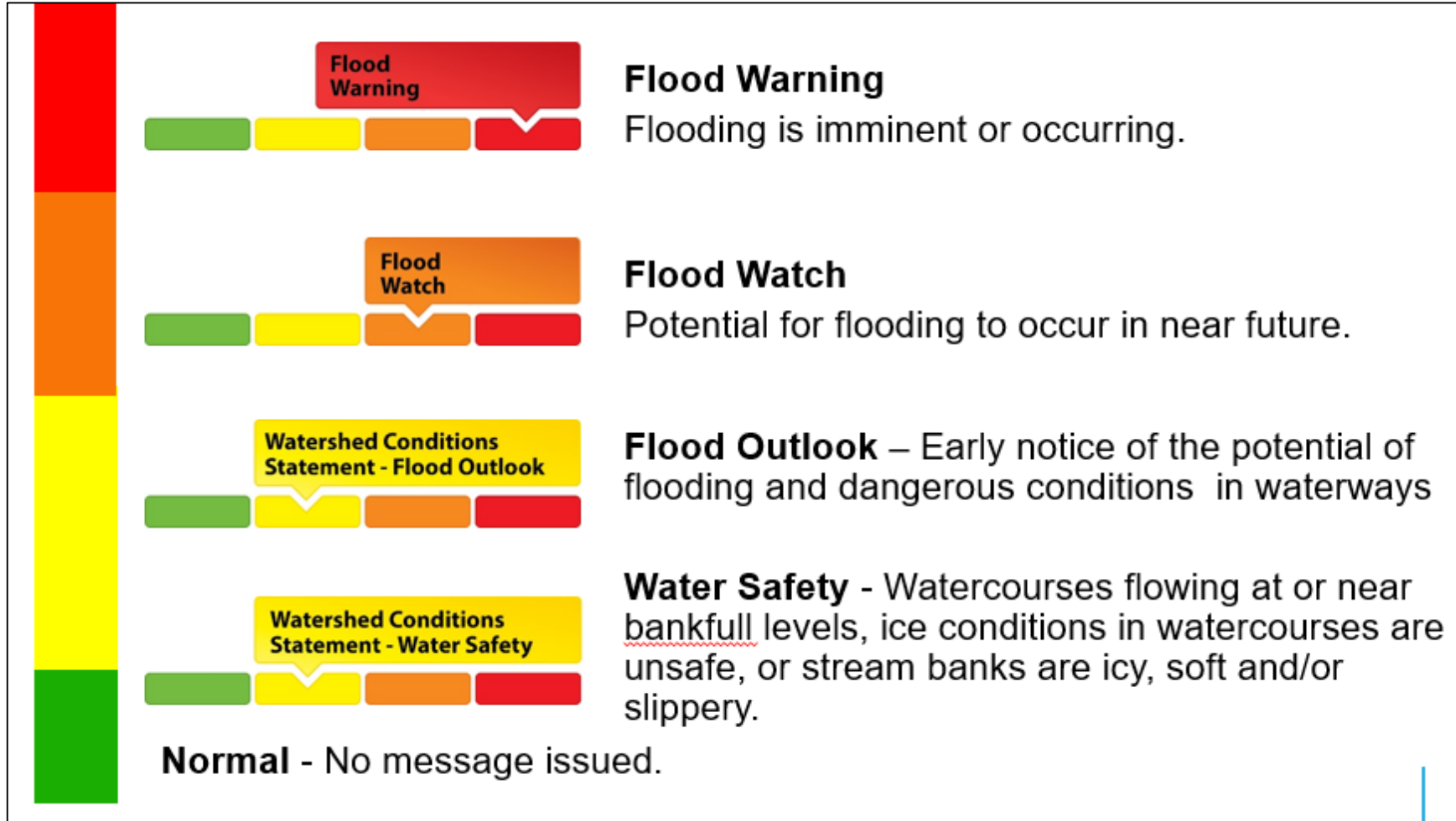


# TRCA Don at Dundas Stream Gauge Water Level Data

Water Level Comparison at TRCA Don at Dundas St. Stream Gauge - July 16 and August 17, 2024



# TRCA Flood Messaging was issued during all three storm events.



**An opportunity exists to increase awareness amongst the public, of what the various messages mean.**

# Storm Event Probabilities

A storm return period is a statistic, where at any given location, a storm of a certain size, will have a 1 in 100 chance (1/100) or 1% chance of occurring in a given year.



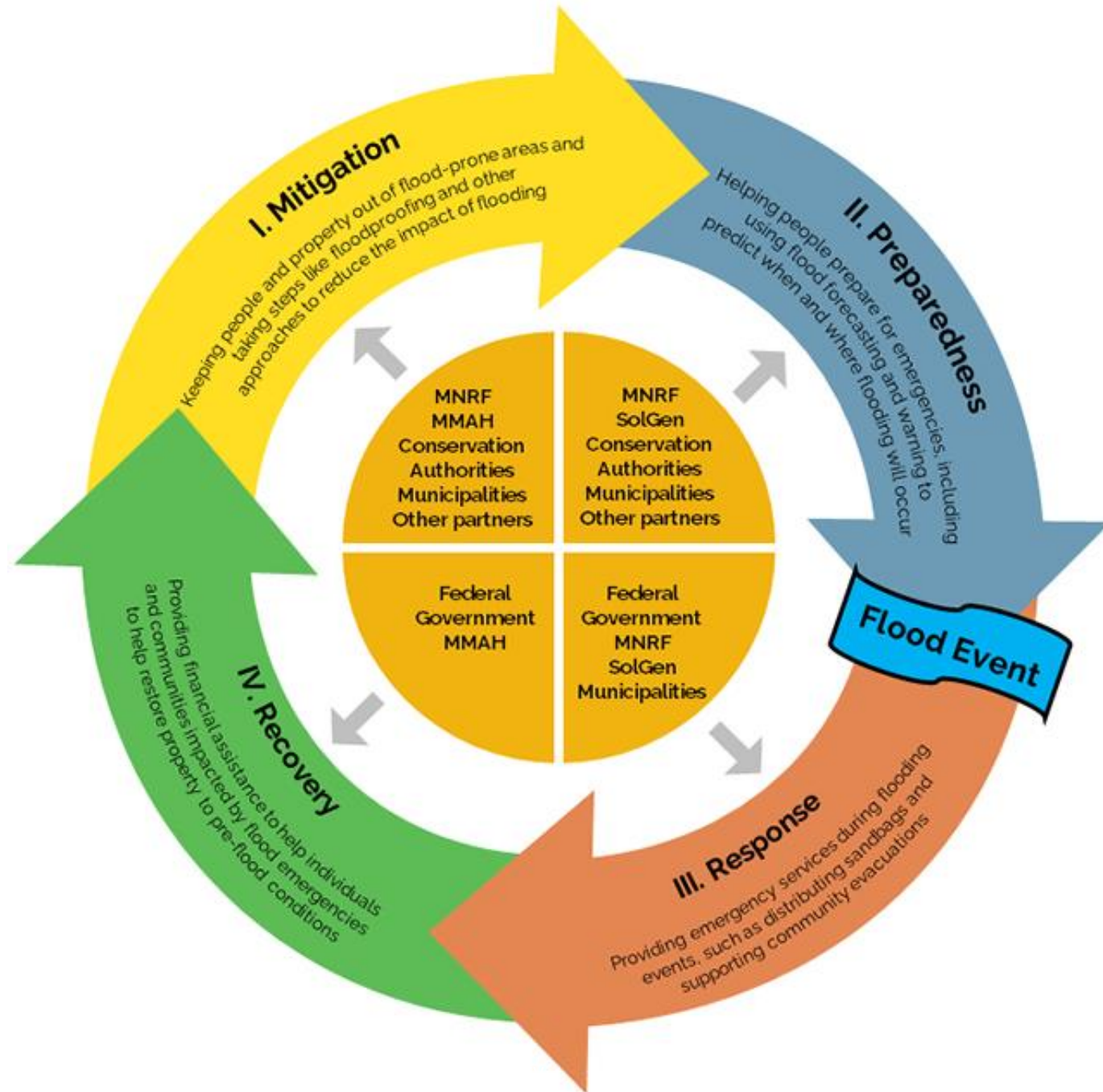
## Things that are also true;

- There is a 26% chance of a 100-year storm happening during a 30-year period (e.g. length of a mortgage).
- Roads & Sewers are sized according to a storm return period.
- Using a different rain gauge will create a different rain event definition (a 100-year storm is not necessarily a 100-year storm).

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## Next Steps

- Emergency Services Review
- Hydrometric Program
- Flood Forecasting and Warning Messaging
- External Program Funding
- Storm Event Analysis Report



# Questions?

[www.trca.ca](http://www.trca.ca)

