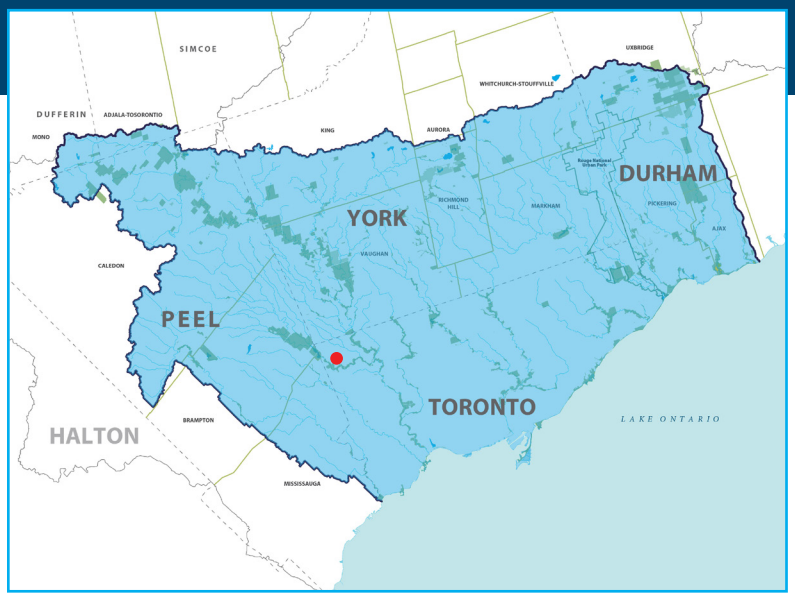
TRCA WIDE

FLOOD AND EROSION SERVICES

Hydrometric Network Expansions - Infrastructure



OVERVIEW

Real time flood monitoring is the backbone of effective flood forecasting and warning. TRCA's hydrometric network needs modernization to keep pace with rapidly evolving weather patterns and the growing risk of intense, localized storms. By converting non real time gauges to real time and installing new flood warning stations in high risk locations, TRCA can dramatically enhance community protection and emergency response.
This is a high impact, region wide investment in life safety, climate readiness, and data driven decision making.

OBJECTIVES

The objective is to build a modern, dense, real time monitoring network capable of supporting advanced modelling, early warnings, and community alerts. Partner investment accelerates deployment and establishes a sustainable long term operations and maintenance program.

BENEFITING STAKEHOLDERS

- All Municipalities
- Engineering Consultants
- General Public

EXPECTED IMPACT

- Long-term reliability of the networks and future proof the program
- Greater public safety and reduction of risk to life and property
- Increased confidence in hydrometric data
- Improved understanding of flood plain extent

BUDGET & FUNDING

Estimated Total Cost ($000's): $3,760

$450K per year plus inflation

Possible Funding Sources:

- Municipal Levy
- Provincial hazard management funding
- Federal public safety funding

OWNERSHIP

- TRCA

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KEY PRIORITIES AND ACTIVITIES TO DATE

Modernize & Expand the Hydrometric Network

High Priority

Improve real-time flood forecasting, early warning, and public safety while supporting resilient infrastructure and development decisions.

Work to Date

TRCA's Hydrometric Program has been in place since 2005 and the commitments have outstripped resources.

RISKS IF UNFUNDED

Social: Failure to maintain and enhance the hydrometric network increases flood risk to the public by reducing the effectiveness of flood warning and emergency response. Loss of critical stream and rain gauge sites can compromise public safety and community resilience.

Financial / Economic: Deferred investment can lead to higher long-term costs due to flood damages, delayed development approvals, and inefficient infrastructure planning. Inadequate data may result in improperly designed critical infrastructure, increasing repair, replacement, and liability costs.

Deferred Action Risk: Delaying upgrades will allow sediment buildup and outlet deterioration to worsen, making future restoration more complex and costly. Postponing action also results in loss of data and fragmented understanding of flood risk.

KEY DATES

- **Possible Start:** TBD
- **Duration:** 10 Years

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