Flood Infrastructure – State of Repair

Summary of the 2023 State of Repair Report on TRCA's Flood Infrastructure

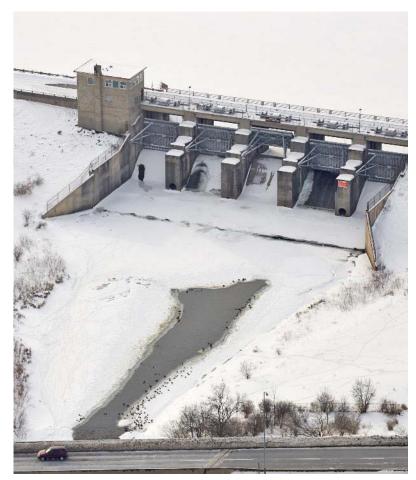
Presented by: Craig Mitchell, Senior Manager – Flood Infrastructure and Hydrometrics



TRCA Flood Infrastructure

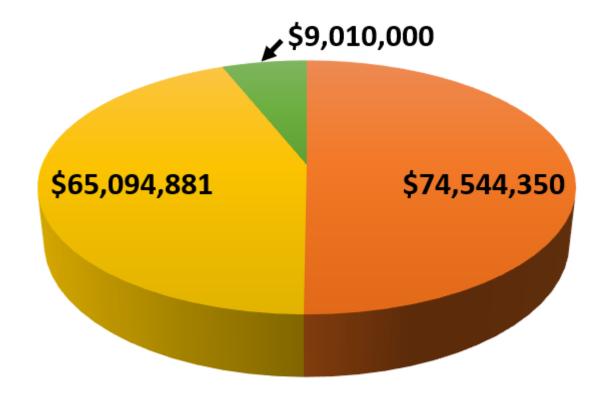
TRCA's Flood Infrastructure Inventory

- 12 dams, 5 of which are flood control structures
- Five dams have Hazard Potential Classifications of Very High
- 9 flood control channels totalling approximately 11.5km in length
- 6 dikes and flood control walls totalling approximately 3.6km in length



Claireville Dam

Asset Valuation



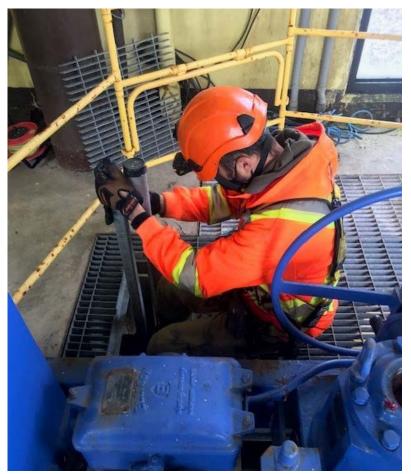
Dams Flood Control Channels Dikes

Total = \$148,649,231

Key State of Repair Programs

Flood Infrastructure Inspections

- The most critical part of ensuring structures are safe
- Dams are inspected monthly and annually, with 2 dams undergoing daily inspections
- TRCA staff conducted approximately 550 dam inspections in 2022
- Channels and dikes are inspected annually



G. Ross Lord Dam – Gate inspection

Preventative Maintenance





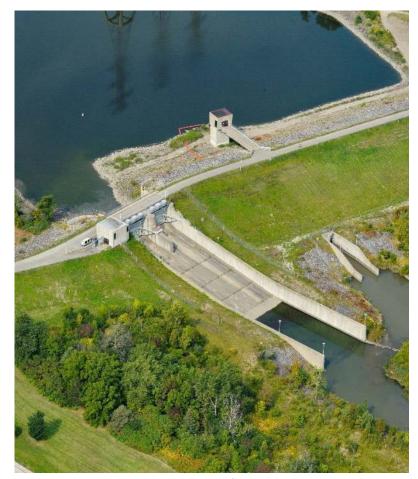
Black Creek Channel before and after major maintenance.

Regular preventive maintenance saves money and ensures a good state of repair

State of Repair Summary

State of Repair Quick Facts

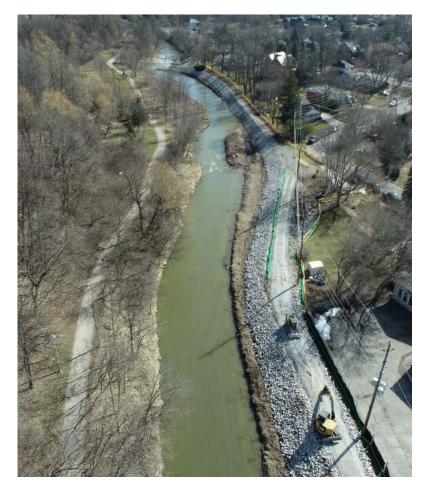
- Of TRCA's 12 dams, 60% have a condition assessment of "Good" or "Very Good" for normal conditions
- 4 of 6 dikes have a condition assessment of "Very Good"
- 75% of TRCA channels have a condition assessment of "Good" or "Very Good"
- 5 structures (3 dams, 2 dikes) have a condition assessment of "Very Poor"



G. Ross Lord Dam – TRCA's highest consequence asset

Major Improvements 2020-2022

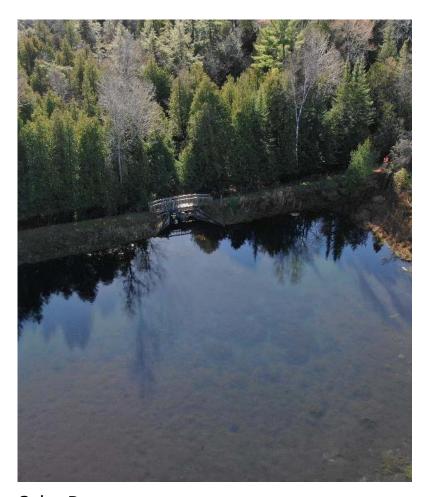
- Bolton Dike underwent major maintenance
- Dike was raised to meet updated flood protection requirements
- Dike received additional erosion protection
- Dike condition ranking was upgraded from Poor to Very Good
- Total cost approximately \$2 million



Bolton Dike construction

Ongoing Major Risks

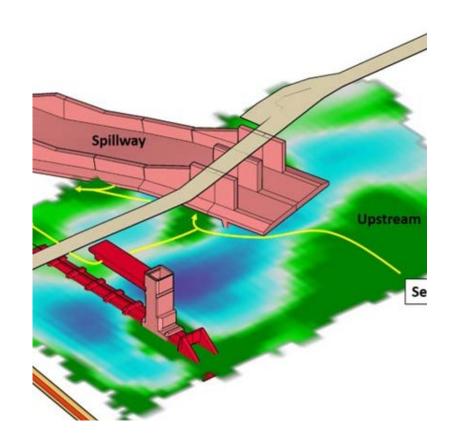
- Pickering Dike and Ajax Dike
- Palgrave Dam
- Glen Haffy Dams (Upper and Lower)
- Osler Dam
- Secord Dam



Osler Dam

Current and Proposed Major Projects 2022- 2024

- Continued investigation into G. Ross Lord Dam drainage system
- Stouffville Channel naturalization feasibility study
- Claireville Dam wing wall repair
- Glen Haffy Upper and Lower Dam decommissioning



G. Ross Lord Dam seepage mapping project

Thank You

