



YORK REGION

FLOOD AND EROSION INFRASTRUCTURE - PHYSICAL

Stouffville Dam Embankment Repair and Channel Major Maintenance



OVERVIEW

The Stouffville Dam is a critical flood control structure that no longer meets current safety standards. Its spillway, embankment, and downstream channel all require significant upgrades to keep pace with today's hydrologic and climate pressures. Without action, sedimentation and structural deficiencies increase the risk of upstream flooding and potential failure. Early engineering work has already identified the path forward - what's needed now is investment to safeguard the community and secure future resilience.

OBJECTIVES

Major upgrades to Stouffville Dam are critical to address spillway, embankment, and channel deterioration that threatens upstream properties. Modernization will prevent emergency repairs, enhance long-term stability, and ensure the system can safely manage more intense storms. The objective is to restore reliable hydraulic performance while reducing municipal exposure to infrastructure failure.

BENEFITING STAKEHOLDERS

- York Region
- Town of Whitchurch-Stouffville
- Adjacent communities

EXPECTED IMPACT

- Reduce dam failure risk during extreme events
- Improve public safety
- Reduce operation and maintenance costs
- Improve ecological function

BUDGET & FUNDING Estimated

Total Cost (\$000's): \$2,300

20% Engineering

80% Construction

Possible Funding Sources:

- Water and Erosion Control Infrastructure Grant
- Disaster Mitigation Action Plan Grant
- Municipal Contributions

OWNERSHIP

- TRCA



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KEY PRIORITIES AND ACTIVITIES TO DATE

Enhance Dam Safety & Stability



High Priority

Adding riprap to the downstream embankment will reduce erosion during extreme floods and increase the dam's factor of safety, lowering the risk of failure and improving public safety.

Reduce Long Term Operation & Maintenance Costs



Medium Priority

Replacing the failing gabion liner in the Stouffville Flood Control Channel will stabilize the structure, improve ecological function, and significantly decrease ongoing maintenance needs.

Activities to Date

Final engineering drawings for dam repair complete. Conceptual drawings for channel upgrades complete. Class Environmental Assessment underway.

RISKS IF UNFUNDED

Social: A potential dam failure poses a serious threat to public safety, with the possibility of loss of life and widespread property damage in downstream neighbourhoods. As conditions worsen, the vulnerability of nearby communities increases.

Financial / Economic: Delaying upgrades will allow channel deterioration to continue, leading to higher maintenance and repair costs over time.

Deferred Action Risk: Delayed action will worsen the loss of aquatic and riparian habitat, making future restoration more difficult and costly.



Stouffville Dam Spillway



KEY DATES

- **Possible Start:** TBD
- **Duration:** 5 Years

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