



PEEL

FLOOD AND EROSION INFRASTRUCTURE - PHYSICAL



Palgrave Dam Major Maintenance



OVERVIEW

The Palgrave Dam is a high-value but aging piece of regional flood protection infrastructure. Built more than a century ago and last upgraded in the early 1980s, the structure no longer meets today's dam safety standards or climate-driven flood realities. A recent safety review revealed critical vulnerabilities that, if left unaddressed, increase the risk of overtopping during extreme storms. With strategic investment, TRCA can modernize the system by installing a stop log gantry, unlocking the ability to proactively lower reservoir levels and dramatically improve downstream protection.

OBJECTIVES

Upgrading Palgrave Dam now prevents costly emergency failures later by reducing overtopping risk, safeguarding downstream homes and infrastructure, and extending the life of this century-old asset. Modernization will strengthen climate resilience and reduce long-term municipal burden, ensuring the dam remains a safe, reliable part of the region's flood protection system that can be proactively managed ahead of severe weather.

BENEFITING STAKEHOLDERS

- Town of Caledon, Town of Bolton, Region of Peel
- Users of Albion Hills Conservation Authority

EXPECTED IMPACT

- Protected downstream communities through reduced flood risk
- Maintained operational integrity through future-proofed essential infrastructure
- Upheld regulatory obligations, ensuring compliance with critical safety standards
- Job creation: Multi-year activities will generate approximately 50 construction, geotechnical and engineering design sector jobs requiring numerous specialized trade

BUDGET & FUNDING Estimated

Total Cost (\$000's): \$2,250

Engineering = 20%

Construction = 80%

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

Install Stop Log Gantry

High Priority



This new system will make it much easier and safer to adjust water levels before major storm events. It also improves day-to-day operability, ensuring staff can manage the dam more efficiently and with reduced safety risks.

Modify Embankment to Withstand Overtopping

High Priority



Strengthening the embankment will protect it from erosion or damage if water ever flows over the top during extreme weather. This upgrade increases the overall resilience of the dam and helps prevent potential structural failures.

Preliminary engineering work complete.

RISKS IF UNFUNDED

Social: Residential communities and businesses at increased flood risk due to dam break.

Financial / Economic: Emergency repairs are always more disruptive and expensive than pre-planned work and scheduled maintenance activities. Broad financial impact to region beyond impacted communities if dam should break.

Deferred Action Risk: Delayed action results in a higher probability of experiencing extreme floods that could imperil the dam. Compounded needs increase complexity.



KEY DATES

- **Possible Start:** Q1 2027
- **Duration:** 3 Years

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