

# Report to Council



**Date:** February 11, 2019  
**File:** 1850-19  
**To:** City Manager  
**From:** Divisional Director, Infrastructure  
**Subject:** Canyon Falls Park Slope Stability

Report Prepared by Brian Beach, Infrastructure Delivery Department Manager

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## **Recommendation:**

THAT Council receive, for information, the Canyon Falls Park Slope Stability report from the Infrastructure Division Director, dated February 11, 2019;

AND THAT the 2019 Financial Plan be amended to include up to \$125,000 currently held in reserve for the Gopher Creek Pre-Design and Land Acquisition capital project to cover the additional costs incurred for the Canyon Falls Park Slope Stability Assessment.

## **Purpose:**

To amend the City's 2019 Financial Plan to cover the cost of a geotechnical evaluation to assess the Canyon Falls Park Slope Stability Issue.

## **Background:**

There is an urgent need to undertake a geotechnical slope stability investigation along Bellevue Creek within Canyon Falls Park. The immediate need is for \$125,000 to undertake the study, do the risk assessment and develop a preliminary design and cost estimate for the mitigation.

In 2016-17, safety improvements were made to the Bellevue Creek Canyon Falls Trail. However, in late March of 2018 excessive groundwater triggered some slope instability and a localized landslide failure occurred, resulting in the closure of the trail. Movement of this smaller active landslide and continued erosion of the Bellevue Creek channel bank have the potential to re-activate a larger historical landslide, which could seriously impact the existing and future development of the park, the proposed South Perimeter Road and cause a debris blockage (landside dam) in Bellevue Creek that could result in significant damage downstream.

The slope subsidence has created a number of issues associated with the Canyon Falls Park property and public access to the trail leading down to the lower waterfall. Until an assessment can be made, along with a strategy for stabilizing the active slope condition, the lower portion of the park will remain closed to the public.

A larger slope failure has the potential to affect the construction of the proposed South Perimeter Road. Any significant mitigation work should be completed prior to opening of the road. In addition, a new parking lot for the park is proposed with construction of the South Perimeter Road, but is also on hold pending this investigation. Mitigation work has the potential to cost \$1M or more.



**Figure 1: Tension Cracks Observed at Canyon Falls Trail Landslide**

Current Conditions Photo:



Current Conditions Photo:



#### **Financial/Budgetary Considerations:**

The 2019 Financial Plan will need to be amended to include up to \$125,000 to cover the additional costs incurred for the Canyon Falls Park Slope Stability Assessment. These funds will be withdrawn from

funds currently held in reserve for the Gopher Creek Pre-Design and Land Acquisition capital project as the scope of this project can be reduced to completing the alternative routing assessment and design only for 2019.

**Internal Circulation:**

Divisional Director, Infrastructure  
Financial Planning Manager  
Building and Parks Planning Manager  
Parks Services Manager

**Considerations not applicable to this report:**

Legal/Statutory Authority:  
Legal/Statutory Procedural Requirements:  
Existing Policy:  
Personnel Implications:  
External Agency/Public Comments:  
Communications Comments:  
Alternate Recommendation:

Submitted by:

A. Newcombe, Divisional Director, Infrastructure

**Approved for inclusion:**



A. Newcombe, Divisional Director, Infrastructure

cc: Divisional Director, Infrastructure  
Divisional Director, Financial Services