



INFORMATION REPORT

TO:	Mayor and Members General Issues Committee
COMMITTEE DATE:	December 7, 2018
SUBJECT/REPORT NO:	Phase 2 - Shoreline Protection Measures for the Waterfront Trail from Bayfront Park to the Floating Bridge (PW18010a) (City Wide) (Outstanding Business List Item)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Wes Kindree (905) 546-2424, Extension 2347
SUBMITTED BY:	Craig Murdoch, B.Sc. Director, Environmental Services Public Works Department
SIGNATURE:	

Council Direction

At its meeting of July 13, 2018, Council approved Public Works Report 18-010 which included the following recommendation:

That Environmental Services Division staff be directed to submit their report and recommendation on the implementation of Phase 2 – Shoreline Protection Measures for the Waterfront Trail from Bayfront Park to the floating bridge on the Desjardins Canal, as identified in part b) of Report PW18006, Item 10.1 relating to Emergency Shoreline Protection Works, as part of the 2019 Capital Budget process.

Information

In 2017, the City of Hamilton experienced two significant weather events that caused substantial damage to the shorelines of three City of Hamilton waterfront assets including The Waterfront Trail, Beachfront Trail and Fifty Road Parkette. These weather events and resulting damages have brought into focus the changing environmental conditions that are negatively impacting City of Hamilton assets and properties. Staff is undertaking an inventory and assessment of all city owned waterfront assets and properties along the shores of Lake Ontario and Hamilton Harbour.

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The Waterfront Trail from Bayfront Park to the floating bridge was the asset identified by staff as the highest priority with over 900 square metres of asphalt paved pathway that was undermined and broken, and shoreline areas seriously damaged or washed out along the 2000m stretch of trail. As this damage presents a safety issue, Parks staff has cordoned off the damaged areas using temporary fencing and visual cues such as line painting and signage to assist trail users in avoiding these hazards.

Staff engaged Shoreplan Engineering (Shoreplan), a specialist in coastal engineering, to complete a preliminary investigation and recommendations report for the shoreline protection along the Waterfront Trail from Bayfront Park to the Desjardins Canal. The Shoreplan report has identified that the combination of the Spring 2017 high water levels, and the wind-driven wave action across Hamilton Harbour created wave damage well above the shoreline protection in place.

Shoreplan has recommended implementing “full scale” shoreline protection measures that would include in-water works along the 2000m trail. These increased protective measures include in-water works consisting of excavation of the lower shoreline embankment to allow for placement of appropriate slope protection approximately 700mm below the historic low water level. This protection will also ensure that any existing areas with less than the recommended protection are found and fully reinforced. This work supplements the proposed asphalt repairs to the trail that were approved through recommendations (a) and (c) of Report PW18010.

In order to move forward with the detailed design work needed to prepare tender documentation for construction, staff have submitted a 2019 capital budget detail sheet for City Wide Shoreline Protection Measures, Project Id 4401956930, with a request of \$150,000. The estimated construction costs for the recommended Bayfront Trail shoreline works is \$6.8 million, and this cost is shown in 2020. There may be opportunities for grants and other funding sources to help with this cost and staff are reviewing these opportunities.

The construction of the recommended shoreline protection would protect the Waterfront Trail from Bayfront Park to the floating bridge against future storm events up to the 100-year storm. Furthermore, the improved shoreline protection will assist in protecting public safety as the trail’s surfacing and base materials will be protected.

Subject to the 2019 Capital Detail sheet approval, staff will engage a Coastal Engineer early in 2019 to begin working on the preparation of detailed design drawings for the full-scale shoreline protection measures. Coordination with the associated regulatory bodies HCA, DFO and MNRF will begin as soon as possible to acquire all of the permitting required to move forward with the construction if and when the construction funding is secured.

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In addition to the Bayfront Trail shoreline protection work, a study of all of the City-owned shoreline properties along the Lake Ontario is underway. The direction and funds for this study were approved per Council report 18-010, Item 7.1 (c). This study is anticipated to result in recommendations for future shoreline protection across all of the city-owned properties along the Lake Ontario shoreline, with preliminary design recommendations and costs, as well as priorities. This study will inform future capital budget requests for funding to complete this shoreline protection strategy. Based on recent shoreline protection projects at Confederation Beach Park and Cherry Beach Park, it is anticipated that costs to protect city-owned shoreline properties along Lake Ontario will in the order of \$24 million.

Appendices and Schedules Attached

Not applicable.