

## Report to Civic Works Committee

**To:** Chair and Members  
Civic Works Committee

**From:** Kelly Scherr, P.Eng., MBA, FEC  
Deputy City Manager, Environment & Infrastructure

**Subject:** West London Dyke: Consultant Award for Infrastructure  
Feasibility Assessment

**Date:** May 10, 2022

## Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to RFP21-70 West London Dyke Feasibility study:

- (a) Stantec Consulting Ltd. **BE APPOINTED** Consulting Engineers to complete consulting services for the West London Dyke Feasibility study with the estimate, on file, at an upset amount of \$246,718.80 including 20% contingency, excluding HST, in accordance with Section 15.2(d) of the City of London's Procurement of Goods and Services Policy;
- (b) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix 'A';
- (c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this work;
- (d) the approvals given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract; and,
- (e) the Mayor and the City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

## Executive Summary

### Purpose

This report seeks Council approval for Stantec Consulting Ltd. to undertake consulting services for the West London Dyke Feasibility Study to determine a construction plan for future phases, provide geotechnical recommendations for wall design, and assess the requirement for trunk sanitary sewer realignment.

### Context

The City of London owns flood and erosion control structures throughout the watershed that are maintained by the Upper Thames River Conservation Authority (UTRCA) under the terms of a Memorandum of Understanding (MOU). The MOU defines a collaborative approach to operation and maintenance and capital improvements to the flood and erosion control structures in which the City and UTRCA share an interest.

The most recent reconstruction of West London Dyke Phase 7, from St. Patrick Street to north of Oxford Street was completed in spring 2021. This concluded the north leg of the West London Dyke. The remaining phases, Phases 9 to 13, span from the Forks of the Thames to Cavendish Park. There are many engineering challenges and conflicts within this section of dyke. The feasibility study will provide engineering recommendations and a roadmap in advance of the wall design in efforts to streamline construction and reduce costs.

## Linkage to the Corporate Strategic Plan

This project supports the 2019-2023 Strategic Plan through the following: Building a Sustainable City, Build infrastructure to support future development and protect the environment, Improve London's resiliency to respond to future challenges, and Maintain or increase current levels of service; manage the infrastructure gap for all assets.

## Analysis

### 1.0 Background Information

#### 1.1 Previous Reports Related to this Matter

- Civic Works Committee – September 21, 2021 – Increase Contract Award: West London Dyke Norman Bradford (Oxford Street) Bridge Concrete Repairs
- Civic Works Committee – August 31, 2021 – Increase Contract Award: West London Dyke Reapplication of Anti-Graffiti Coating to Phases 1 and 2
- Civic Works Committee – November 17, 2020 – West London Dyke – Phase 7 and Fanshawe Dam Safety Study PO Boost
- Civic Works Committee – July 14, 2020 – Upper Thames Conservation Authority and City of London Flood Protection Projects: West London Dyke Phase 7
- Civic Works Committee – March 10, 2020 – Upper Thames River Conservation Authority and City of London Flood Protection Projects
- Civic Works Committee – August 12, 2019 – Upper Thames River Conservation Authority and City of London Flood Protection Projects
- Civic Works Committee – June 18, 2018 – Upper Thames River Conservation Authority and City of London Flood Protection Projects
- Civic Works Committee – July 17, 2017 – Water and Erosion Control Infrastructure (WECI) Program: 2017 Provincially Approved Project Funding (Sole Sourced)
- Civic Works Committee – August 22, 2016 – Water and Erosion Control Infrastructure (WECI) Program: 2016 Provincially Approved Project Funding (Sole Sourced)
- Civic Works Committee – February 2, 2016 – West London Dyke Master Repair Plan Municipal Class Environmental Assessment Study
- Strategic Priorities and Policy Committee – January 28, 2016 – Downtown Infrastructure Planning and Coordination

### 2.0 Discussion and Considerations

#### 2.1 Discussion

The original West London Dyke was constructed in the 1880s. After extreme floods in 1937 and 1947 left thousands of homes underwater, sections of the dyke were raised in order to increase protection. In 2005, an engineering assessment determined that most sections of the dyke needed to be fully replaced due to structural deficiencies. To further protect the homes within the floodplain, the new dyke was designed to protect against the 1:250 year flood event. To date over 1.4km of the West London Dyke spanning from the Forks of the Thames to north of Oxford Street have been upgraded to this higher level of protection, including a freeboard of 0.9m for climate change considerations.

Completion of the remaining west leg spanning from the Forks to Cavendish Park is now required.

In 2019, the West London Dyke project was successful in securing federal funding from the Disaster Mitigation and Adaptation Fund provided by Infrastructure Canada for the remaining phases. This funding is available to support large scale infrastructure projects that reduce the risks of natural hazards. To be eligible, projects must have a minimum cost of \$20 million and must be completed by 2027/2028. For this project, the program funds up to 40% of the engineering design and construction costs up to the approved program total.

Given the funding end date of 2028 and the challenges of the future phases of the West London Dyke, it was determined that a feasibility study should be completed to better inform design and address concerns/constraints. The feasibility study will provide guidance related to:

- geotechnical requirements,
- integration with bridge upgrades,
- trunk sanitary sewer options (realignment or constructability of the dyke over the trunk),
- identify pathway connections, and,
- highlight temporary and permanent property acquisition needs.

This study will be a roadmap for the upcoming phases 9-13 of West London Dyke construction, all to ensure the project is cost effective and coordinated with future City-lead infrastructure works (see Section 2.2 Location Map).

## 2.2 Location Map

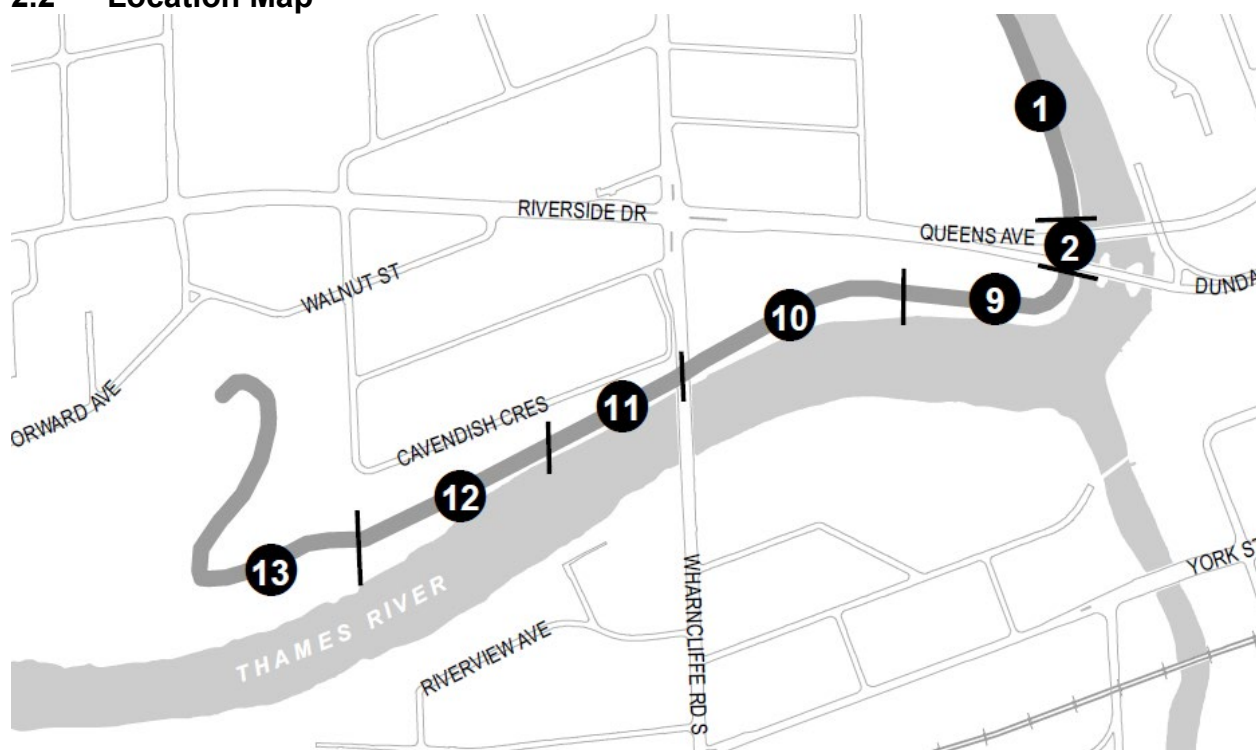


Figure 1: Location map showing the remaining west leg Phases 9 through 13

## 3.0 Financial Impact/Considerations

The engineering consultant selection procedure for this assignment followed a competitive Request for Proposal process in accordance with Section 15.2(d) of the Procurement of Goods and Services Policy. Four qualified engineering firms from the City's pre-approved consultant list were invited to submit a formal proposal to undertake the West London Dyke Feasibility Study, two of which submitted proposals. The evaluation of each consultant proposal focused on the understanding of project goals, experience on directly related projects, project team members, capacity and qualifications, and overall project fee.

Based on a review of the submitted proposals, it is recommended that Stantec Consulting Ltd. be authorized to carry out the West London Dyke Feasibility Study. Stantec Consulting Ltd. has specific knowledge of the project area having staff who helped to complete designs and supporting studies for previous phases of the West London Dyke.

## **Conclusion**

It is recommended to appoint Stantec Consulting Ltd. to lead the West London Dyke Feasibility Study in advance of future wall design. The study will be a roadmap for the upcoming phases 9-13 of the West London Dyke construction, all to ensure the project is cost effective and coordinated with future City-lead infrastructure works.

**Prepared by:**                      **Shawna Chambers, DPA, P.Eng., Division Manager,  
Stormwater Engineering**

**Submitted by:**                    **Aaron Rozentals, P.Eng., GDPA, Acting Director,  
Water, Wastewater, & Stormwater**

**Recommended by:**            **Kelly Scherr, P. Eng., MBA, FEC  
Deputy City Manager, Environment & Infrastructure**

**Attachments:**                    Appendix 'A' – Source of Financing

**CC:**                                    John Freeman  
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