

Section II – Items for Executive Action

TO: Chair and Members of the Executive Committee
Friday, March 05, 2021 Meeting

FROM: Anil Wijesooriya, Director, Restoration and Infrastructure

RE: **REQUEST FOR PROPOSAL FOR CONCEPTUAL DESIGN DEVELOPMENT FOR THE TORONTO ISLAND PARK FLOOD AND EROSION MITIGATION PROJECT, CITY OF TORONTO**
RFP No. 10034747

KEY ISSUE

Award of Request for Proposal (RFP) No. 10034747 for conceptual design development and associated background studies to support the Class Environmental Assessment planning process for the Toronto Island Park Flood and Erosion Mitigation Project.

RECOMMENDATION

WHEREAS Toronto and Region Conservation Authority (TRCA) is engaged in a project that requires coastal engineering services for the development of alternative conceptual designs for long-term flood and erosion mitigation measures at Toronto Island Park;

AND WHEREAS TRCA solicited proposals through a publicly advertised process and evaluated the proposals based on the criteria;

THEREFORE, LET IT BE RESOLVED THAT Request for Proposal (RFP) No. 10034747 for the Toronto Island Park Flood and Erosion Mitigation Project be awarded to W.F. Baird & Associates Coastal Engineers Ltd. at a total cost not to exceed \$295,171, plus applicable taxes, to be expended as authorized by TRCA staff;

THAT TRCA staff be authorized to approve additional expenditures to a maximum of \$29,517 (approximately 10% of the project cost), plus applicable taxes, in excess of the contract cost as a contingency allowance if deemed necessary;

THAT should TRCA staff be unable to negotiate a contract with the above-mentioned proponent, staff be authorized to enter into and conclude contract negotiations with other Proponents that submitted proposals, beginning with the next highest ranked Proponent meeting TRCA specifications;

AND FURTHER THAT authorized TRCA officials be directed to take whatever action may be required to implement the contract, including the obtaining of necessary approvals and the signing and execution of any documents.

BACKGROUND

In the spring of 2017, water levels in Lake Ontario reached levels higher than had ever been measured since record keeping began in 1918. The effect of the high water levels and associated flooding was felt along the entire length of Toronto's waterfront, especially Toronto Island Park where over 800 residents, almost 30 businesses, and two schools were forced to adapt to rising waters and service disruptions. In response to the high lake event, both TRCA and City of Toronto staff worked to prevent damage and the loss of property and assets through emergency flood mitigation efforts, including the deployment of over 45,000 sandbags, 1,000

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meter bags, and a dozen industrial pumps. Despite these efforts, Toronto Island Park was closed for 88 days between May 4 and July 30, 2017 due to the flooding. The closure of the Islands during peak season presented a major disruption in tourist and recreational activity which is an important source of revenue to the City and local businesses. The Park also experienced significant shoreline erosion, damage, and debris accumulation over the spring and summer of 2017. The flooding resulted in the activation of the City of Toronto Emergency Operations Centre and in notable financial impacts, including millions in damages and municipal revenue loss.

In 2018, TRCA worked with the City of Toronto to repair damaged areas and install temporary proactive measures to protect strategic areas from potential future flooding. During this time, TRCA retained W.F. Baird & Associates Coastal Engineers Ltd. (Baird) through a competitive procurement process to complete a study to assist in planning for and responding to future flood conditions. The study consisted of the following four major components: i) Flood Characterization, ii) Flood Risk Assessment, iii) Flood Mapping and iv) Flood Mitigation Alternatives.

In the Spring of 2019, Lake Ontario once again experienced unprecedented water levels, surpassing the previous 2017 record by ten centimeters. Despite higher water levels, lessons learned from the 2017 event, along with the proactive mitigation measures implemented in 2018, reduced the impact of flooding. Flood mapping developed as part of the Baird study allowed for the effective deployment of resources in response to rising water levels. The study also provided background information that informed the ideal placement of short-term mitigation measures to address the flood levels, including the ideal placement of sandbags and other efforts. During this time, a total of 22,000 sandbags were placed, 14 Aqua Dams were installed, and previously installed pumps were operated and/or maintained. While strategically placed short-term mitigation measures helped to reduce the impact of the 2019 high lake level event, a long-term solution is needed to provide adequate and sustainable flood protection.

Without timely and significant action, Toronto Island Park will continue to experience similar, if not worse, socio-economic and environmental impacts to what has been experienced during past flooding events. While TRCA and the City of Toronto work diligently each year to deploy temporary mitigation measures to protect the park, its residents, and businesses, it is evident that long-term flood and erosion mitigation measures are required to provide a cost effective and sustainable solution. Due to the increasing frequency of high lake level events and the continued vulnerability of residents, businesses, and public spaces within the Toronto Islands, the City of Toronto has partnered with TRCA to undertake the Toronto Island Park Flood and Erosion Mitigation Project (the "Project"). The goal of the Project is to develop long-term flood and erosion mitigation measures to protect the Islands from future high water level and flooding events.

As part of the Project, TRCA staff will work closely with the City of Toronto who is currently developing a Master Plan for Toronto Island Park. While the City-led Master Plan will be a strategic document that establishes focus items for park improvements, the TRCA-led project will be the driver of shoreline protection measures and will act as a foundational element to the overall Master Plan vision. As the projects will be running concurrently, staff from the respective teams have established a coordinated approach to managing these initiatives.

The Project will be undertaken through Conservation Ontario's Class Environmental Assessment (EA) for Remedial Flood and Erosion Control Projects. Planning and implementation of the Project has been phased to expedite critical works on an emergency basis in order to prioritize repairs and maintain accessibility for emergency services throughout

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the remainder of the Class EA planning process. A declaration order, officially initiating the Class EA process, was issued to the Ministry of Environment, Conservation and Parks (MECP) and Conservation Ontario on February 19, 2020 requesting exemption from the compliance requirements stipulated under the Environmental Assessment Act for emergency works. As part of emergency works, which were undertaken in the winter and spring of 2020, approximately 500 meters of critical roadway was raised along Lakeshore Avenue and Cibola Avenue to maintain emergency vehicle access, 125 meters of beach curb was installed at Ward's Island to provide protection to the ferry dock terminal and interim flood mitigation measures were installed at the Island Water Treatment Plant to help maintain critical plant operations.

The remaining flood and erosion mitigation works will be developed in accordance with the full Class EA requirements. In support of the Project, TRCA requires the services of a qualified coastal engineer to complete a detailed site investigation and develop conceptual design alternatives for several identified project areas (see map attached). The scope of work includes a baseline inventory of existing site conditions, completion of a coastal analysis, and subsurface geotechnical investigation to support proposed conceptual designs at each site. Through the investigation of these environmental conditions, as well as consultation with members of the public and other stakeholders, conceptual design alternatives will be developed and evaluated to select preferred approaches for long-term flood and erosion control at Toronto Island Park.

RATIONALE

RFP documentation was posted on the public procurement website www.biddingo.com on December 16, 2020 and closed on February 1, 2021. One (1) addendum was issued to respond to questions received. A total of thirty (30) firms downloaded the documents and two (2) proposals were received from the following Proponent(s):

- W.F. Baird & Associates Coastal Engineers Ltd.
- WSP Canada Inc.

An Evaluation Committee, comprised of staff from the Erosion Risk Management Business Unit and Project Management Office Business Unit, reviewed the proposals. The criteria used to evaluate and select the recommended Proponent included the following:

Criteria	Description	Weight	Minimum Score
Proponent's Information and Profile	<ul style="list-style-type: none">• Proponent has provided all requested information in a clear manner which meets all format and submission requirements	10	-
Key Personnel	<ul style="list-style-type: none">• Qualifications and experience of key personnel and sub-consultants, including resumes• Appropriate allocation of staff resources• Project Manager's qualifications and experience	10	-
Supplier and Employee Diversity	<ul style="list-style-type: none">• Company's commitment and related policies to supplier diversity and employee diversity (as per City of Toronto guidelines)	5	-
Experience and Qualifications	<ul style="list-style-type: none">• Summary of most relevant projects in proposal, including number of projects of similar scope and budget	10	-

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Scope of Work Capabilities	<ul style="list-style-type: none"> Demonstrated understanding of project requirements and objectives 	15	-
Proposed Work Plan	<ul style="list-style-type: none"> Detailed description of the work plan (approach and methodology) Innovative ideas and approaches to meeting project objectives Identification of project limitations or difficulties and proposed solutions 	35	-
Sub-Total		85	50
Pricing	<ul style="list-style-type: none"> Reasonableness of cost 	15	-
Total Points		100	-

W.F. Baird & Associates Coastal Engineers Ltd. was the topped ranked Proponent, scoring higher than WSP Canada Inc. in both the technical and financial proposal evaluation. While both Proponents demonstrated an acceptable approach and methodology, W.F. Baird & Associates Coastal Engineers Ltd. demonstrated an exemplary understanding of the project scope while at a competitive cost. Based on their coastal engineering specialization, and extensive project experience in coastal risk assessment and resilience, it was determined that W.F. Baird & Associates Coastal Engineers Ltd. would provide optimal value for services retained. Therefore, it is recommended that contract No. 10034747 be awarded to W.F. Baird & Associates Coastal Engineers Ltd. at a total cost not to exceed \$295,171, plus 10% contingency, plus applicable taxes, it being the highest ranked Proponent meeting TRCA specifications. Proponent's scores and staff analysis of the evaluation results can be provided in an in-camera presentation, upon request.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategic priority set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 2 – Manage our regional water resources for current and future generations

Strategy 7 – Build partnerships and new business models

Strategy 8 – Gather and share the best sustainability knowledge

FINANCIAL DETAILS

Funds for the contract will be recovered from Parks, Forestry and Recreation through the City of Toronto Master Service Agreement dated August 15, 2018. The cost of executing this contract, including all staff time and associated costs to manage the Project, is being tracked under account 254-01.

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Attachments: 1

Attachment 1: Key Map of Project Location