



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	October 4, 2021
SUBJECT/REPORT NO:	Water Treatment Plant Clearwell Improvement (PW20026(a)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Stuart Leitch (905) 546-2424 Ext. 7808
SUBMITTED BY:	Mark Bainbridge Director, Water and Wastewater Planning and Capital Public Works Department
SIGNATURE:	

RECOMMENDATION

- (a) That the single source procurement, pursuant to Procurement Policy #11 – Non-competitive Procurements, for construction services for the clearwell improvements at the Woodward Water Treatment Plant with a current upset limit of \$1,300,000 be increased to \$2,500,000 and awarded to Bennett Mechanical Installations (2001) Ltd. and funded from Project ID No. 5141166110;
- (b) That the General Manager, Public Works Department be authorized to negotiate, enter into and execute a Contract and any ancillary documents required to give effect thereto with Bennett Mechanical Installations (2001) Ltd. in a form satisfactory to the City of Hamilton (City) Solicitor;
- (c) That the single source procurement, pursuant to Procurement Policy #11 – Non-competitive Procurements, for consultancy services including project management, contract administration during construction, site inspection and commissioning / warranty services for the clearwell improvements at the Woodward Water Treatment Plant current upset limit of \$300,000 be increased to \$400,000 and awarded to AECOM Canada Ltd. and funded from Project ID No. 5141166110; and,

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

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- (d) That the General Manager, Public Works Department be authorized to negotiate, enter into and execute a Contract and any ancillary documents required to give effect thereto with AECOM Canada Ltd. in a form satisfactory to the City Solicitor.

EXECUTIVE SUMMARY

This report is recommending that the upset limit identified in the approved Council Report PW20026 (August 2020), for improvements at the Woodward Water Treatment Plant clearwell, be increased for Bennett Mechanical Installations (2001) Ltd. (Bennett Mechanical) and AECOM Canada Ltd. (AECOM).

Throughout 2021, investigative services and design was completed for the clearwell improvement project. In August 2021, a quotation was submitted by Bennett Mechanical for the construction works in the amount of \$2.5M, which exceeded the upset limit identified in Council Report PW20026. The reasons for the increased value of construction is due to the following items not identified or known prior to investigation and design activities: unknown repairs identified, unknown subsurface utilities encountered, increased shoring requirements, supply of yard piping, paving, disinfection / leak testing, various construction accessories and miscellaneous administrative activities. The additional items identified have impacted the complexity and timelines of the design and construction completion.

In order to construct the interconnecting channel in the most efficient and timely manner, which will help mitigate possible future water use restrictions, this report recommends increasing the upset limit of the single source procurement for both the contractor (Bennett Mechanical), and the consultant (AECOM), whom are already mobilized on the site for Phase 1 construction and contract administration. The construction work is estimated to be \$2.5M (for construction and contingency) with a completion anticipated by June 2022. Sufficient funds are available within the existing capital project account and no additional funds are being requested for this project.

Alternatives for Consideration – See Page 4

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: This report is recommending that the upset limit be increased to \$400,000 for the consultant (AECOM) Contract C11-04-17 from Project ID No. 5141166110 (Water Treatment Plant – Process Upgrades) for project management, contract administration during construction, site inspection and commissioning / warranty services.

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This report is recommending that the upset limit for construction be increased and the works be initiated through a contract change order, following approval of Council Report PW20026(a). The additional construction works are currently estimated to be valued at \$2.5M (including construction and contingency). Bennett Mechanical's current approved purchase order under Contract C13-23-18 includes sufficient budget contingency to cover this additional work, so no additional funds are required.

Staffing: NA

Legal: NA

HISTORICAL BACKGROUND

In the summer of 2020, Hamilton Water issued a mandatory water use restriction to the residents and businesses of the City, effectively banning non-essential outside water use. This was due to an early summer heatwave combined with construction delays associated with unexpected repairs required within Phase 1 of the Woodward Water Treatment Plant Process Upgrades. The repairs were completed in the summer of 2020; however, a capacity risk still remains in the water treatment process and this report seeks approval to mitigate this risk.

The Woodward Water Treatment Plant capacity is restricted when one of the clearwells is out of service. This capacity restriction results from the water filtration process sequence, where one half of the filters supply one clearwell and vice versa. Effectively, when one of the clearwells is out of service, only one half of the filters can be used to process potable drinking water. In order to eliminate this capacity restriction, staff recommend construction of a channel that interconnects the separate filtered water conduits, which will allow all of the filters to process potable water even if one of the clearwells is out of service.

Commencing in Q4 2020 through July 2021, investigative services and design was completed for the clearwell improvement project. In late August 2021, a quotation was submitted by Bennett Mechanical for the construction works which exceeded the upset limit identified in Report PW20026. The reasons for the increased value of construction is due to the following items not identified or known prior to investigation and design activities: unknown repairs identified, unknown subsurface utilities encountered, shoring requirements, supply of yard piping, paving, disinfection / leak testing, various construction accessories and miscellaneous administrative activities. The additional items identified have impacted the complexity and timelines of the design and construction completion.

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In order to construct the interconnecting channel in the most efficient and timely manner, which will help mitigate possible future water use restrictions, this report recommends increasing the upset limit of the single source procurement for both the contractor (Bennett Mechanical), and the consultant (AECOM), whom are already mobilized on the site for Phase 1 construction and contract administration.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

This report is in accordance with By-law 17-064 Procurement Policy #11 – Non-Competitive Procurements.

RELEVANT CONSULTATION

The following groups have been consulted:

- Finance, Corporate Services
- Procurement, Corporate Services has provided guidance as to adherence to the Procurement Policy

ANALYSIS AND RATIONALE FOR RECOMMENDATION

The construction of the interconnect between the filtered water conduits at the Woodward Water Treatment Plant will provide several benefits including:

- Reduce the risk of future community water use restrictions in the event one of the clearwells is out of service;
- Proceeding with the works via single source procurement ensures that the construction works can be completed by June 2022, ahead of next summer's high-water demand;
- The current contractor (Bennett Mechanical) and consultant (AECOM) have intimate constructability and technical knowledge of the Woodward Water Treatment Plant and are already mobilized and able to complete this assignment; and,
- Improves drinking water production security in advance of Phase 2 of the Woodward Water Treatment Plant Process Upgrades which is anticipated to commence in 2024.

ALTERNATIVES FOR CONSIDERATION

A capital project for the construction of the interconnection between the filtered water conduits at the Woodward Water Treatment Plant, including construction administration could be initiated through the 2022 Water, Wastewater and Storm Rate Budget (Rate Budget) process. After approval of the 2022 Rate Budget, this work could then be

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competitively procured. This option is not recommended as it would delay the work, resulting in construction completion in Q1 2024, extending the period that the Woodward Water Treatment Plant operates with the potable water production capacity risk that currently exists. In addition, this option fails to take advantage of the potential cost savings that can be realized by using a consultant and contractor that are already mobilized, completed investigative and design services and possess intimate constructability and technical knowledge of the Woodward Water Treatment Plant as a result of the work that they have completed to date.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Built Environment and Infrastructure

Hamilton is supported by state-of-the-art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

NA