

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: Purchase of Rotary Drum Thickener for Greenway
Wastewater Treatment Plant

Date: June 1, 2021

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions be taken with respect to the supply of a rotary drum thickener for Greenway Wastewater Treatment Plant:

- a) The proposal submitted by JWC Environmental Canada ULC (JWC Environmental) at a price of \$187,060.00 (HST excluded), **BE ACCEPTED**;
- b) The financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix 'A';
- c) The approval given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract or issuing a purchase order for the material to be supplied and the work to be done relating to this project; and
- d) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report recommends approving the award of a new rotary drum thickener unit for the Greenway Wastewater Treatment Plant to JWC Environmental, whose proposal was selected through Request for Proposal 21-15.

Context

Sludge thickening, the removal of a portion of the water from waste sludge, is an important process at the City's wastewater treatment plants. By removing a portion of that water through thickening, storage requirements at the plants are reduced. Rotary drum thickeners are the technology used at Greenway wastewater treatment plant for sludge thickening. Two of Greenway's three rotary drum thickeners are at end of life and require replacement.

Linkage to the Corporate Strategic Plan

This project supports the 2019-2023 Strategic Plan through:

- Building a Sustainable City: build infrastructure to support future development and protect the environment; and manage the infrastructure gap for all assets.

Analysis

1.0 Background Information

1.1 Purpose

The purpose of this report is to seek Council approval to award the supply and delivery of a rotary drum sludge thickening unit for the Greenway Wastewater Treatment Plant based on the results of Request for Proposal 21-15.

2.0 Discussion and Considerations

2.1 Greenway WWTP Sludge Thickening

The Greenway Wastewater Treatment Plant is the City's largest treatment plant, treating 60% of the City's wastewater. In 2020 it reliably treated an average of almost 120 million litres per day of wastewater. An important part of the treatment process is the thickening of waste activated sludge prior to further sludge processing in preparation for disposal.

One of the three existing sludge thickener units, the one that was installed in 2019, is currently providing the majority of sludge thickening for the Greenway Wastewater Treatment Plant. The other two existing thickeners, purchased second hand and installed in 2015, both require replacement. Request for Proposal 21-15 was issued for the replacement of these two existing units with either one or more new sludge thickening units to offer greater flexibility and operational reliability.

2.2 Purchasing Process

Request for Proposal 21-15 was made available to any interested vendors in order to obtain equipment selection and pricing for supply and delivery of rotary drum thickener(s) to the Greenway Wastewater Treatment Plant. The Request for Proposal also included an option to provide equipment selections for the supply and delivery of rotary drum thickeners of varying capacities for installation at other plants in the City.

Two proposal submissions were received. The proposal submitted by JWC Environmental for one rotating drum thickener unit was the highest scoring submission with the best overall score, in accordance with the City's policies. The unit proposed for supply and delivery to Greenway matches the unit currently providing the majority of thickening operations at this plant and is similar to units installed at the Adelaide Wastewater Treatment Plant. Therefore, operations staff are familiar with maintenance requirements and expect the previous performance record to be maintained.

A separate engineering assignment and construction contract will be undertaken to complete the installation and start-up of this new equipment.

3.0 Financial Impact/Considerations

Funding for this project is available under the current multi-year budget. Replacing the two end-of-life rotary drum thickeners with a single new unit that matches the existing thickener will significantly reduce maintenance costs and is an important part of the asset management work in Wastewater Treatment Operations.

Conclusion

Civic administration has reviewed the proposals received in response to Request for Proposals 21-15 and recommends JWC Environmental be awarded the contract to supply and deliver a rotary drum sludge thickener for the Greenway Wastewater Treatment Plant. This equipment replacement will renew an essential treatment process at the plant, and the proposed equipment offers opportunity for the same renewal at other City facilities in the coming years.

Prepared by: Kirby Oudekerk, P.Eng., Division Manager, Wastewater Treatment Operations

Submitted by: Scott Mathers, MPA, P. Eng., Director, Water, Wastewater and Storm Water

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

Appendix 'A'

Source of Financing

cc: Marcy McKillop, Environmental Services Engineer, Wastewater Treatment
Operations
John Freeman, Manager III, Purchasing and Supply
Chris Ginty, Procurement Officer, Purchasing and Supply
Alan Dunbar, Manager III, Financial Planning and Policy
Zeina Nsair, Financial Business Administrator, Finance and Corporate Services

Appendix "A"

#21074

June 1, 2021

(Award Contract)

Chair and Members
Civic Works Committee

RE: Purchase of Rotary Drum Thickener for Greenway Wastewater Treatment Plant
(Subledger FS20GW04)

Capital Project ES5022 - Biosolids Processing Upgrades
JWC Environmental Canada ULC - \$187,060.00 (excluding HST)

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing for this project is:

Estimated Expenditures	Approved Budget	Committed To This Date	This Submission	Balance for Future Work
Engineering	309,648	17,495	0	292,153
Vehicles and Equipment	190,352	0	190,352	0
Total Expenditures	\$500,000	\$17,495	\$190,352	\$292,153

Sources of Financing

Drawdown from Sewage Works Reserve Fund	500,000	17,495	190,352	292,153
Total Financing	\$500,000	\$17,495	\$190,352	\$292,153

Financial Note:

Contract Price	\$187,060
Add: HST @13%	24,318
Total Contract Price Including Taxes	211,378
Less: HST Rebate	-21,026
Net Contract Price	\$190,352

Jason Davies
Manager of Financial Planning & Policy

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