

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: Emergency Repair of Dewatering Centrifuge 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 emergency repair of a centrifuge for the Greenway Wastewater Treatment Plant:

- a) The purchase order for emergency centrifuge repair awarded to Flottweg under Section 14.2 of the Procurement of Goods and Services Policy at a projected total price of \$150,000.00 (HST excluded), **BE CONFIRMED**;
- b) The financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix 'A'; and
- c) 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 informs Council of a purchase order that was issued to commence an emergency repair on a sludge dewatering centrifuge that was removed from service at the Greenway Wastewater Treatment Plant.

Context

Dewatering is an integral part of the solids handling facility at Greenway that services all five wastewater treatment plants in the City of London. Returning the removed centrifuge to service is an urgent priority to maintain reliable solids processing for the City.

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 inform Council of a decision by administration to award a purchase order for the emergency repair of a dewatering centrifuge from Greenway Wastewater Treatment Plant. The essential role of dewatering in the wastewater treatment process will be described in this report, as will the nature of the procurement that was undertaken.

2.0 Discussion and Considerations

2.1 Greenway WWTP Sludge Dewatering

The Greenway Wastewater Treatment Plant is the City's largest treatment plant. It is also the location of a centralized solids handling facility that processes the waste sludge removed from wastewater at all five City wastewater treatment plants in preparation for disposal. This final stage of the treatment process is absolutely essential for the safe and effective operation of the treatment facilities to ensure the protection of public health and the environment.

Dewatering centrifuges are the final sludge treatment process prior to incineration. The centrifuges remove a large percentage of the water from the sludge by rotating at high speeds. Removing excess water from the sludge allows the incinerator to operate more efficiently and largely without the use of natural gas burners.

Preventive maintenance programs are essential for the reliable operation of dewatering centrifuges and the City of London maintains a rigorous maintenance program. Due to constraints imposed by COVID-19, a planned 3-year rebuild of the centrifuge in question was deferred. Early in 2021, operation of one of the three centrifuges became unreliable, to the point that further operation risked causing permanent damage. At least two centrifuges are required in order to handle London's daily sludge requirements. The unreliable centrifuge was sent to the manufacturer's facility for inspection and for an estimate of the work required to restore it to service.

2.3 Purchasing Process – Justification for Emergency Status

With one centrifuge out of service, Greenway's sludge dewatering facility now has no redundancy. If one of the two remaining centrifuges is taken out of service for any reason, operations staff may not be able to keep up with sludge processing requirements and the alternative is to hire sludge haulers at significant cost.

Flottweg, the manufacturer of the centrifuge, now operates the only approved repair facility in Ontario. An estimate for the required rebuild was provided by Flottweg on April 27, 2021.

The projected lead time for receipt of the rebuilt centrifuge was estimated at two to three months. Therefore, even the additional six weeks required to obtain Council approval in advance for the procurement of the repair services represented a significant increase in operational risk. For this reason, it was decided that it was appropriate in this instance to invoke the emergency procurement procedures available under Section 14.2 of the Procurement of Goods and Services Policy and to issue a purchase order to commence repair work immediately, reporting to Council afterwards to inform them of the decision and reasons for it.

3.0 Financial Impact/Considerations

While the timing of the repair work warranted treating this situation as an emergency procurement, this type of work is accounted for and funding is available in the current multi-year budget.

Conclusion

Sludge dewatering centrifuges are an essential part of the City's wastewater treatment process. Having one centrifuge out of service places the City at increased operational risk because there is no standby for this process. By invoking the emergency procurement measures available under the Procurement of Goods and Services Policy, administration was able to ensure that a currently out of service centrifuge can be returned to service six weeks earlier, significantly reducing this exposure to risk.

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:

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"

#21075
June 1, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: Emergency Repair of Dewatering Centrifuge for Greenway Wastewater Treatment Plant
(Work Order 02522511)
Capital Project ES508421 - WWTP Optimization and Renewal
Flottweg - \$150,000.00 (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
Construction	786,000	149,170	152,640	484,190
Vehicles and Equipment	750,000	344,795	0	405,205
Total Expenditures	\$1,536,000	\$493,965	\$152,640	\$889,395
Sources of Financing				
Drawdown from Sewage Works Reserve Fund	1,536,000	493,965	152,640	889,395
Total Financing	\$1,536,000	\$493,965	\$152,640	\$889,395

Financial Note:

Contract Price	\$150,000
Add: HST @13%	19,500
Total Contract Price Including Taxes	169,500
Less: HST Rebate	-16,860
Net Contract Price	\$152,640

Jason Davies
Manager of Financial Planning & Policy

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