

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: Overflow Notification Website – Single Source Procurement

Date: December 5, 2023

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the implementation of a public information system for wastewater overflows:

- a) Supply and implementation of an online overflow monitoring and notification system **BE AWARDED** to Blue Siren Inc. for the total price of US\$24,000.00 (estimated at CDN\$35,000.00), excluding HST, in accordance with Section 14.4 (e) of the City of London's Procurement of Goods and Services Policy;
- b) Supply of hosting services for the website created in item a) for one (1) year **BE AWARDED** to Blue Siren Inc. for the total price of US\$17,000.00 (estimated at CDN\$25,000.00), excluding HST, in accordance with Section 14.4 (e) of the City of London's Procurement of Goods and Services Policy;
- c) Supply of wastewater flow monitoring equipment **BE AWARDED** to Blue Siren Inc. with a total expenditure approved under this report not to exceed the available provincial funding, in accordance with Sections 14.4 (e) and 14.4 (f) of the City of London's Procurement of Goods and Services Policy;
- d) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix 'A'; and
- e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.
- f) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project.

Executive Summary

This report seeks Council approval for the single-source procurement of goods and services to create an internet-based public information resource displaying near real-time status of key locations for overflow activity in the City's wastewater collection and treatment system.

Overflows and bypasses are necessary in a wastewater collection system as a last resort measure to prevent basement flooding and damage to treatment processes. By creating a publicly accessible internet resource that shows current overflow activity, the public is provided with a tool to help make decisions regarding activities in areas that could be affected. Transparency of operational status also improves decision-making for future system improvements. Funding for the creation of this system is 100% recoverable from a provincial program that expires March 2024.

Linkage to the Corporate Strategic Plan

This report supports the 2023-2027 Corporate Strategic Plan by contributing to the following outcome:

- Climate Action and Sustainable Growth
 - London's infrastructure and systems are built, maintained, and operated to meet the long-term needs of the community.

- Well-Run City
 - Residents', businesses' and visitors' satisfaction with City services is high.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Civic Works Committee, April 20, 2022 – Agenda Item #2.5: Unwanted Water: Addressing Overflows and Bypasses from London's Wastewater Collection and Treatment System

Civic Works Committee – December 14, 2021 – Agenda Item #2.4: Quantifying Inflow and Infiltration in London's Wastewater Sewer System

Civic Works Committee – September 21, 2021 – Agenda Item #2.3: Sewage Overflows and Bypasses Into the Thames River – Sanitary Cross Connections

Civic Works Committee – April 20, 2021 – Agenda Item #2.3: Sewage Overflows and Bypasses Into the Thames River

Civic Works Committee – April 17, 2018 - Agenda Item # 2.5: London Pollution Prevention and Control Plan - Final Master Plan

Civic Works Committee – March 24, 2014 – Agenda Item #2.7: Permanent Sewer Flow Monitoring Equipment Selection and Purchase (ES4422)

2.0 Discussion and Considerations

2.1 Overflows and Bypasses of Wastewater

The collection and treatment of the wastewater generated in the City of London is an essential component of the City's stewardship of the environment and obligation for public protection. The performance of the City's wastewater collection and treatment system is governed by provincial regulation and specific operating parameters to which the City is held accountable.

The provincial approvals under which the City operate require that all flows are captured and treated under normal conditions. However, they also acknowledge the periodic need to allow overflow or bypass of wastewater from the collection and treatment systems in extreme situations, such as weather-influenced high flow events. Overflows and bypasses are defined as follows:

- Overflows are releases of untreated wastewater from either the collection system (sanitary sewers or wastewater pumping stations) or from the inlet of a wastewater treatment plant. These typically occur when unwanted water in the collection system overwhelms the capacity of the infrastructure and forces the release of wastewater directly to the environment. This is done to avoid having wastewater enter residents' basements or flow uncontrolled over City streets. Overflows are typically very dilute in comparison to normal full-strength wastewater, with rainwater making up 80% or more of the wastewater. In some cases, the City is able to provide partial treatment to these flows prior to discharge, thereby further reducing the impact of any overflows.
- Bypasses are releases of partially treated wastewater from a wastewater treatment plant. In some cases, a bypass only refers to the need for flows to be directed around a specific process in the plant, with those flows still receiving full biological treatment. In other cases, flows are treated to remove solids and some of the biological content but is released before full treatment can be achieved.

Bypasses are undertaken in order to protect the long-term viability of treatment processes in the plant and to prevent permanent damage to equipment, since very high flow rates can interrupt treatment processes that take weeks or months to establish, or could overwhelm tanks and flood areas containing important process equipment.

The City's Wastewater Treatment and Operations Division works diligently to avoid the need for overflows or bypasses, using them as a last resort only. Despite the fact that a certain amount of overflow and bypass activity is unavoidable, public notification remains a key part of the City's desire for transparency of operations and empowerment of the City's residents and neighbours downstream of the City.

2.2 Provincial Funding and Strategy for Real-Time Overflow Notification

The Province of Ontario decided that the City would be eligible for a grant program that reimburses 100% of City expenditures directed toward implementing a real-time notification system for overflow and bypass activity. This funding is being provided through the government's Improving Monitoring and Public Reporting of Sewage Overflows and Bypasses Program. As a result, Wastewater Treatment Operations considered the best means of implementing a system that leverages and expands the current overflow monitoring network and provides the means for the public to access that information.

The City's wastewater treatment plants and pumping stations are already monitored through the Supervisory Control and Data Acquisition (SCADA) system. This data is readily available and can be incorporated into a real-time website. Similarly, key locations in the collection system are monitored or ready to be monitored. The provincial funding offers the opportunity to increase the data available and extend the current monitoring system to more locations at effectively no cost to the City. The intent of City staff is to purchase and install enough equipment to support the current monitoring program, enhance the ability for public reporting of key locations within that program, and increase the potential to fulfill future recommendations of the ongoing Pollution Prevention and Control Plan. The final number will depend on how much equipment can reasonably be purchased and installed, up to the available grant funding, without overly increasing the City's ongoing operating expenses, which are not eligible for funding. No City funds would be contributed except for staff time and the ongoing costs of website hosting and support, as well as the costs to maintain the sewer monitoring equipment.

There is a secondary benefit to the City of enhancing the sewer flow monitoring network whereby the augmentation of the current information gathering network enables City staff to make more informed decisions regarding growth servicing, infrastructure renewal and overall system optimization. By purchasing new flow monitoring equipment for the purpose of monitoring key overflow locations, the City's other flow monitoring systems can be utilized in other areas for planning, as opposed to public notification purposes.

2.3 Procurement Process

Given the timelines for the Province's grant program, and in order to leverage the existing monitoring network to be greatest extent possible, it was determined by staff that the preferred means of expanding the City's monitoring network is to add monitoring equipment and create the website using the vendor established in the existing system. Blue Siren Inc. is the original equipment manufacturer of the City's current collection system monitoring equipment. They have also undertaken similar website design work for other municipalities across the globe. Their ability to efficiently meet the goals of this project led staff to recommend awarding all supply and development work to that firm, including the first year of website hosting and support for continuity during the initiation of this program.

The items being requested for single source are listed below, along with the reason for the requested approval:

- i. Development and Hosting of Public Notification Website - The City already owns and maintains a fleet of sewer monitoring equipment supplied by Blue Siren Inc. That company was selected through a competitive Request for Proposals process in 2014. Blue Siren has also implemented a public notification website, including the monitoring network, for other municipalities globally. They are well-positioned to create the website in a short time given their experience and familiarity with the existing monitoring equipment. Staff recommends awarding the development of the website at a cost of US\$24,000 (estimated at CDN\$35,000) and one (1) year of hosting and supporting that website at a cost of US\$17,000.00 (estimated at CDN\$25,000.00) to Blue Siren Inc., excluding HST, in accordance with article 14.4.e of the Procurement of Goods and Services policy: “The required goods and/or services are to be supplied by a particular supplier having special knowledge, skills, expertise or experience.” Note that ongoing hosting and support costs are not eligible for grant funding.
- ii. Supply of Flow Monitoring Equipment – As previously indicated, the City already owns and maintains Blue Siren monitoring equipment. Approval from Council is sought to undertake the single source purchase of the supply of new sewer monitoring units from Blue Siren Inc. Total expenditures, including those required for website creation and contractor installation services, will be kept below the available grant funding so that the City’s non-reimbursable cost is zero (maximum total expenditure estimated at \$557,734). This purchase is proposed under both article 14.4.e of the Procurement of Goods and Services policy: “The required goods and/or services are to be supplied by a particular supplier having special knowledge, skills, expertise or experience” and 14.4.f “The goods are purchased under circumstances which are exceptionally advantageous to the City.”

3.0 Financial Impact/Considerations

The detailed source of financing is included in Appendix A of this report. The costs to build and implement a real-time notification system for overflow and bypass activity are eligible for 100% Provincial funding under the Improving Monitoring and Public Reporting of Sewage Overflows and Bypasses Program. Operating costs will be funded from existing City budgets as shown but are not eligible for grant funding. For clarity, costs to implement recommendations a) and c) of this report will be recovered at 100% from Provincial funding, the budget for these costs are categorized as Vehicle and Equipment in Appendix A. As for recommendation b), the ongoing cost to host the website is to be paid by the City and will not be recovered. The total amount expended under recommendations a) and c), including any direct costs incurred to install equipment, will not exceed the available Provincial funding.

Conclusion

Sewer monitoring is already part of the City’s strategy for responsible management of wastewater collection system. The Wastewater Treatment Operations Division has access to real-time data from all of its facilities. By creating a website that allows the public to see the status of overflow locations, transparency of operations is provided that enable the public to make informed decisions regarding the activities they undertake and the programs they support. The ability to use provincial funding to cover 100% of the cost to create this vehicle for public information is a significant opportunity.

Civic administration is recommending the award of single-source purchases of website development and support, and equipment supply to Blue Siren Inc. The aggregate total of purchase and installation costs for the overflow notification website will not exceed the available Provincial funding.

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

Submitted by: Ashley Rammeloo, MMSc., P. Eng.
Director, Water, Wastewater and Stormwater

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

Appendix 'A' Source of Financing

cc: Steve Mollon, Senior Manager, Procurement and Supply
Jason Davies, Manager III, Financial Planning and Policy
Zeina Nsair, Financial Business Administrator, Finance and Corporate Services

Appendix "A"

#23221

December 5, 2023

(Award Contract)

Chair and Members
Civic Works Committee

RE: Overflow Notification Portal - Single Source Procurement
(Subledger NT23ES15)
Capital Project ES2456 - Sewage Bypass and Overflow Elimination
Blue Siren Inc. - \$617,733.74 (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 recommendation of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To This Date	This Submission	Balance for Future Work
Engineering	434,922	99,089	25,440	310,393
Construction	969,596	0	0	969,596
Vehicles and Equipment	651,125	35,477	603,166	12,482
Total Expenditures	\$2,055,643	\$134,566	\$628,606	\$1,292,471

Sources of Financing

Drawdown from Sewage Works Renewal Reserve Fund	1,417,000	99,089	25,440	1,292,471
Improving Monitoring and Public Reporting of Sewage Overflows and Bypasses Program - Provincial Funding	638,643	35,477	603,166	0
Total Financing	\$2,055,643	\$134,566	\$628,606	\$1,292,471

Financial Note:

	Engineering	Vehicles and Equipment	Total
Contract Price	\$25,000	\$592,734	\$617,734
Add: HST @13%	3,250	77,055	80,305
Total Contract Price Including Taxes	28,250	669,789	698,039
Less: HST Rebate	-2,810	-66,623	-69,433
Net Contract Price	\$25,440	\$603,166	\$628,606

Jason Davies
Manager of Financial Planning & Policy

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