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<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON MARCH 24, 2014</b>
<b>FROM:</b>	<b>JOHN BRAAM, P. ENG. MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES &amp; CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>PERMANENT SEWER FLOW MONITORING EQUIPMENT SELECTION AND PURCHASE (ES4422)</b>

<b>RECOMMENDATION</b>
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That, on the recommendation of the Managing Director, Environmental & Engineering Services & City Engineer, the following actions **BE TAKEN** with respect to sewer flow monitoring equipment selection and purchase:

- a) The proposal submitted by Blue Siren Inc., 3030 Venture Lane, #103, Melbourne, Florida, 32934, USA, at its proposal amount of \$75,670.10, including a 10% contingency and excluding HST, for the purchase of sewer flow monitoring equipment **BE ACCEPTED** in accordance with Section 12 of the City of London's Procurement of Goods and Services Policy; it being pointed out that the proposal submitted by Blue Siren Inc. represents the best value out of three (3) proposals received and meets the City's specifications and requirements in all areas;
- b) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix "A";
- c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;
- d) the approval given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract or issuing a purchasing order for the equipment to be supplied; and
- e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

<b>PREVIOUS REPORTS PERTINENT TO THIS MATTER</b>
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"Pollution Prevention and Control Plan Consultant Appointment Continuation ES2464-11", Civic Works Committee, February 3 2014.

"Consultant Appointment Pollution Prevention and Control Plan Project ES5419", Civic Works Committee, May 14 2012.

<b>BACKGROUND</b>
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**Purpose:**

The purpose of this report is to recommend the purchase of sewer flow monitoring equipment to track and report combined sewer overflow (CSO) frequency and volume.

**Background:**

In 2013 Environment Canada implemented new Wastewater System Effluent Regulations (WSER) regarding the identification and reporting of 'combined' sewer overflows. All discharge

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outlets downstream of a combined sewer overflow must be identified and flow volumes reported out yearly to satisfy WSER.

A combined sewer is a sewer that carries both wastewater and storm water. In decades past, combined sewer overflows were constructed to alleviate basement flooding. An 'overflow' is typically a connection between a sanitary sewer or combined sewer and a storm sewer. In circumstances where a sanitary sewer or combined sewer reaches a surcharged state (ie. during a wet weather event), the presence of an overflow prevents sewer backup into homeowner's basements.

#### **Discussion:**

The Wastewater & Drainage Engineering Division (WADE) has identified eleven (11) locations which need to be monitored to satisfy the WSER. It is noted that all the overflow locations are being studied in the Pollution Prevention & Control Plan (PPCP) Master Plan which will ultimately recommend a strategy and set project priorities to address each overflow and mitigate impact to the environment.

The proposed flow monitoring equipment will monitor the sanitary flows in the mainline sewer while also monitoring the flows within the combined sewer overflow. The monitors will transmit the data collected (level, velocity, flow and totalized flow) to the City's SCADA network. Once in the SCADA network, staff can report out on the data as required by Environment Canada.

The eleven (11) proposed permanent CSO monitoring locations are as follows:

<b>Locations</b>
1. York Street & Richmond Street
2. York Street & Ridout Street
3. Wellington Street & Grey Street
4. Wellington Street & Hill Street (west side)
5. Wellington Street & Hill Street (east side)
6. Wellington Street & South Street
7. Wellington Street north of the Thames River
8. Waterloo Street north of the Thames River
9. High Street & Grand Avenue
10. Jacqueline Street & Terrace Street
11. Mill Street & Talbot Street

WADE is also taking this opportunity to monitor the existing White Oaks sanitary diversion sewers and storage facility to determine how frequently the sanitary flows are diverted to this system, and how much volume is being diverted. There are two proposed monitoring locations to be installed to accomplish this. This data will also be transmitted to the SCADA network.

In accordance Section 12 of the City of London's Procurement of Goods and Services Policy, a Request for Proposal for Flow Metering Equipment (RFP 14-05) was issued on January 16, 2014 and closed Monday February 3, 2014. Staff received three (3) equipment selection proposals. The review team included staff from WADE and Wastewater Treatment Operations under the direction of Purchasing and Supply. The proposals were evaluated based on proposed equipment, price, past equipment experience, understanding and knowledge of proposed equipment, support/maintenance, and innovation. Following evaluation of all proposals, staff deemed that the proposal submitted by Blue Siren Inc., with a proposed price of \$75,670.10, including a 10% contingency and excluding HST, represented the best financial and technical value to the City. It is recommended that the City proceed with purchase of flow monitoring equipment from Blue Siren Inc.

The purchase of sewer flow monitoring equipment is the first phase of a two stage process. The second stage will consist of a tender for installation of the flow monitoring equipment. It is expected that the installation will take place in summer 2014. The estimated cost for the installation is not expected to exceed \$240,000.

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**Summary:**

The City is recommending purchase of sewer flow monitoring equipment to comply with new federal WSER regulations which require the reporting of sewer flow volume and frequency for each identified combined sewer overflow site. Three proposals were received from equipment vendors following the posting of a Request for Proposal in January 2014. Staff are recommending the equipment selection and purchase be awarded to Blue Siren Inc. as their proposal represents the best financial and technical value to the City. Blue Siren's fee estimate of \$75,670.10 including contingency; excluding HST also represented the lowest cost of three proposals received. The City plans to have the flow monitor equipment installed in summer 2014 through a future tender award.

**Acknowledgements:**

This report was prepared within the Wastewater and Drainage Engineering Division by Kelly Christensen, CET, Technologist II and reviewed by Kyle Chambers, P. Eng., Environmental Services Engineer.

<b>PREPARED BY:</b>	<b>SUBMITTED BY:</b>
<b>TOM COPELAND, P. ENG. DIVISION MANAGER, WASTEWATER &amp; DRAINAGE ENGINEERING</b>	<b>JOHN LUCAS, P. ENG. DIRECTOR, WATER AND WASTEWATER</b>
<b>RECOMMENDED BY:</b>	
<b>JOHN BRAAM, P.ENG. MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES &amp; CITY ENGINEER</b>	

March 19, 2014

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Attach: Appendix "A" – Sources of Financing

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c.c. Pat Shack, Budget Analyst