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| <b>TO:</b>      | <b>CHAIR AND MEMBERS<br/>CIVIC WORKS COMMITTEE<br/>MEETING ON JUNE 7, 2017</b>   |
| <b>FROM:</b>    | <b>KELLY SCHERR, P.ENG., MBA, FEC<br/>MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING<br/>SERVICES &amp; CITY ENGINEER</b>                              |
| <b>SUBJECT:</b> | <b>CLEAN WATER AND WASTEWATER FUND<br/>SINGLE SOURCE PURCHASE OF ODOUR CONTROL, AIR<br/>HANDLING AND HEAT RECOVERY UNITS FOR WASTEWATER<br/>FACILITIES</b> |

**RECOMMENDATION**

That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the Single Source purchase of odour control, heat recovery and air handling units for various wastewater facilities:

- (a) the price submitted by Applied Energy Systems of \$1,977,580.00 including contingency and excluding HST, for the supply of three (3) integrated odour control systems and five (5) standalone odour control units **BE ACCEPTED**; it being noted that this is a single source purchase in accordance with Sections 7.4 and 14.4 (e) of the City of London's Procurement of Goods and Services Policy;
- (b) the financing for these acquisitions **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 administrative acts that are necessary in connection with this project;
- (d) the approval hereby **BE CONDITIONAL** upon the Corporation entering into a formal contract or issuing a purchase order relating to this approval;
- (e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

**PREVIOUS REPORTS PERTINENT TO THIS MATTER**

CWC report of 2016-10-04, item 8, Infrastructure Canada Phase 1-Project Requests-Clean Water and Wastewater Fund

**2015-19 STRATEGIC PLAN**

This project supports the Strategic Plan with respect to Building a Sustainable City-Robust Infrastructure, through improvements in wastewater infrastructure.

**BACKGROUND**

**Purpose**

The purpose of this report is to seek Council approval for a single source purchase of three (3) integrated odour control systems and five (5) standalone odour control units due to enhanced quality, design, delivery and support over similar previously installed units. Approval for this purchase is requested in accordance with sections 7.4 and 14.4 e) of the Procurement of Goods and Services Policy, being a specific product is specified for essential functionality purposes (with consideration for operating and

maintenance costs) to avoid unacceptable risk, and the required goods and/or services are to be supplied by a particular supplier having special knowledge, skills, expertise or experience.

## **Context**

This approved CWWF project will upgrade three (3) integrated odour control systems and five (5) standalone odour control units due to their age, high operating and maintenance costs and safety concerns. Industrial strength bleach is currently used for odour control at some sites.

# **DISCUSSION**

## **Clean Water and Wastewater Fund**

The first phase of funding for the Clean Water and Wastewater Fund (CWWF) is a 2 year - \$2 Billion Government of Canada investment to meet immediate priorities for clean water and wastewater to support a cleaner and healthier environment for communities. CWWF focuses on investing in projects that:

- Rehabilitate and optimize water, storm water and wastewater related infrastructure;
- Improve asset management approaches including pilots and studies;
- Plan for future upgrades to wastewater treatment and collection infrastructure;
- Include new construction projects like naturalized systems.

The City of London has successfully received funding for odour control, air handling and heat recovery units at the City's wastewater facilities from the CWWF. Sources of Financing for the projects is provided in Appendix A.

## **Project Description**

Typically, odour control units are comprised of an air handling unit and a scrubber. The air handling unit moves the air from the sewage treatment area to the scrubber which is designed to remove the odours. London has recently started phasing out chemical (bleach) odour control units in favour of ozone systems that are safer and have lower operations and maintenance costs. The City has also started to incorporate heat recovery into these units realizing energy (heat) savings of approximately 30%. Several of the systems included in this purchase include heat recovery.

Odour control equipment is subject to a separate Environmental Compliance Approval (ECA) which can only be submitted for approval after the design of the system is known. Historically these approvals have taken up to 12 months to receive. Recently, the Ministry of Environment and Climate Change (MOECC) has streamlined the process down to six months. The anticipated delivery time for these units is between five and six months.

## **Purchasing and Supplier Selection**

Prior to the Greenway expansion City staff explored an alternate supplier for odour control systems due to quality, support and reliability problems with the existing ozone units. Standalone and integrated systems as supplied by Applied Energy Systems were identified as a more robust ozone generation system and air handling unit design, and better system flexibility over standard "off the shelf" products. A site visit to the manufacturing plants confirmed the commitment to quality of the products. Based on this, Applied Energy Systems was included as an approved supplier for the Greenway expansion project and was subsequently carried forward by the General Contractor.

Since submitting this project for approval under the CWWF, City staff and Applied Energy Systems representatives have been working on the design and sizing of three (3) integrated odour control systems and five (5) standalone odour control units for

installation at City wastewater facilities. Under this project, Applied Energy Systems will supply three integrated systems including ozone generation, air handling and heat recovery, and six standalone ozone generation systems. The prices quoted are in line with the equipment supplied for the Greenway installation as well as other odour control systems recently supplied to the City by other suppliers.

The equipment is to be ordered now and delivery coordinated with an installation contract in the fall of 2017. An allowance for installation was included in the CWWF application.

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| <b>CONCLUSIONS</b> |
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Upgrading several odour control systems within City of London Wastewater facilities will reduce safety concerns related to the storage and handling of industrial strength bleach while reducing ongoing operations and maintenance costs and maintaining odour control performance. Completing these upgrades as a Single Source Supply contract with Applied Energy Systems will help ensure the City receives reliable and well supported equipment with ongoing maintenance and operations savings.

**Acknowledgements**

This report was prepared with the help of Kirby Oudekerk, P.Eng. Environmental Services Engineer and Mark Elliott CET. Senior Technologist, both of the Wastewater Treatment Operations Division.

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| <b>PREPARED BY:</b>  | <b>REVIEWED AND CONCURRED BY:</b>                                 |
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| <b>GEORDIE GAULD,<br/>DIVISION MANAGER<br/>WASTEWATER TREATMENT<br/>OPERATIONS</b>   | <b>JOHN LUCAS, P. ENG.<br/>DIRECTOR, WATER AND<br/>WASTEWATER</b> |
| <b>RECOMMENDED BY:</b>   |   |
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| <b>KELLY SCHERR, P.ENG., MBA, FEC<br/>MANAGING DIRECTOR<br/>ENVIRONMENTAL &amp; ENGINEERING<br/>SERVICES AND CITY ENGINEER</b> |   |

Attach: Appendix "A"- Sources of Financing

cc: Applied Energy Systems-185 Snow Blvd, Concord, Ontario L4K 4N9