

## 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:** SS-2023-261 Single Source Procurement Operation &  
Maintenance of Landfill Gas Collection and Flaring System  
W12A Landfill Site

**Date:** October 24, 2023

## Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure,

- a) Approval **BE GIVEN** to exercise the single source provisions of section 14.4 (d) & (e) of the Procurement of Goods and Services Policy for the operation and maintenance of the landfill gas collection and flaring system at the W12A Landfill Site in accordance with the proposal submitted by Comcor Environmental Limited, for a cost greater than \$50,000 per year, for a two-year term;
- b) The single source annual estimated price of \$150,530 (plus HST) in submitted by Comcor Environmental Limited **BE ACCEPTED** to continue to provide operation and maintenance services of the landfill gas collection and flaring system services at the W12A Landfill Site in accordance with the terms and condition outlined in contract record C17-009 and applicable revisions;
- c) Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this work; and
- d) Approval hereby given **BE CONDITIONAL** upon the Corporation entering into a formal contract or having a purchase order, or contract record relating to the subject matter of this approval.

## Executive Summary

Landfill gas collection and flaring systems are the predominant engineering control mechanism that controls odour and Greenhouse Gas emissions (GHG emissions) from landfill sites. The landfill gas collection and flaring system at the W12A Landfill is a requirement of the Environmental Compliance Approval (ECA) to operate the landfill.

Comcor Environmental Limited (Comcor) currently provides services to operate and maintain the existing landfill gas collection and flaring system at the W12A Landfill Site in accordance with the terms and conditions of Contract Record C17-009 (C17-009) as revised. Civic Administration undertook the necessary administrative acts to establish C17-009 after RFP16-59 was administratively awarded to Comcor in accordance with Section 8.10 Irregular Result of the Procurement of Goods and Services Policy. The term of C17-009 was for five years with two option years at the sole discretion of the City of London (City). Both option years have been exercised by the City with the last year expiring January 31, 2024.

Comcor provides consulting engineer services, such as but not limited to landfill gas collection and flaring system design, contract administration and construction oversight as well as operation and maintenance of landfill gas collection and flaring systems installed at landfill sites.

Comcor is the engineer of record for the existing landfill gas flaring system which was commissioned in 2003 and has provided consulting engineer services for the design, contract administration and construction oversight for each of the landfill gas collection system expansions that have occurred at W12A since 2003. In addition, Comcor has provided operation and maintenance services for the landfill gas collection and flaring

system since it has been commissioned and subsequently expanded at the W12A Landfill Site. Comcor is also part of the engineering design team responsible for the design and Ministry of the Environment, Conservation and Parks (MECP) approval of the engineering control systems for the proposed expanded W12A Landfill Site.

Given Comcor's longstanding and detailed involvement with the existing landfill gas collection flaring system and their involvement with the MECP approved larger landfill gas flaring station, this report seeks approval from Committee and Council to exercise the single source provisions of section 14.4 (d) & (e) of the Procurement of Goods and Services Policy to extend an additional two year award of C17-009 to Comcor for the annual estimated cost of \$150,530 plus HST. Approval for this extension is being sought for the following reasons:

- Awarding an additional two-year extension will ensure that the new larger landfill gas flaring station once commissioned is operated efficiently with minimal down time;
- The landfill gas collection and flaring system is the predominant engineering control system that limits odour and GHG emissions at W12A; and
- Awarding an additional two-year extension is expected to allow for the initial portion of the new landfill gas collection systems as part of the expanded W12A Landfill Site to be integrated into the existing extended system and limit the potential for odour and GHG emissions as the system will be operated by the engineering designer and historical operator.

The estimated annual operating cost can be accommodated within the base budget of the upcoming proposed 2024-2027 Multi-Year Budget. The estimated annual price is \$39,680 more than the current price as a result of:

- A significant increase in the amount of landfill gas collection system infrastructure has occurred since 2018 (year two of existing contract), including 25 vertical landfill gas extraction wells, three drain traps, three flow control assemblies, two maintenance hole connections and four horizontal landfill gas collectors which has significantly increased the time required to complete monthly monitoring rounds; and
- Portions of the landfill gas collection system infrastructure have required more frequent maintenance and/or trouble shooting which has required an increase in number of confined space entries that were not originally anticipated.

## **Linkage to the Corporate Strategic Plan**

Municipal Council continues to recognize the importance of waste management and the need for a more sustainable and resilient city in the development of its 2023-2027 Strategic Plan for the City of London. Specifically, London's efforts in waste management address the following Areas of Focus; Climate Action and Sustainable Growth and Well-Run City.

On April 23, 2019, the following was approved by Municipal Council with respect to climate change:

Therefore, a climate emergency be declared by the City of London for the purposes of naming, framing, and deepening our commitment to protecting our economy, our eco systems, and our community from climate change.

On April 12, 2022, Municipal Council approved the Climate Emergency Action Plan which includes Area of Focus 5, Transforming Consumption and Waste as Part of the Circular Economy.

## Analysis

### 1.0 Background Information

#### 1.1 Previous Reports Related to this Matter

Relevant reports that can be found at [www.london.ca](http://www.london.ca) under Council meetings include:

- Award of Construction Administration Services, Landfill Gas Flaring Facility Replacement at the W12A landfill Site (March 21, 2023, meeting of the Civic Works Committee (CWC), Item #2.12)
- Award of Engineering Services to Complete Environmental Protection Act and Other Approvals for the Proposed Expansion of W12A landfill (January 11, 2022, meeting of the CWC, Item #2.2)
- Award of Consulting Services for Detailed Design and Tendering for a New Landfill Gas Flaring Station (March 2, 2021, meeting of CWC, Item #2.9)

#### 1.2 Landfill Gas Collection and Flaring System Operations

All landfills in Ontario of a certain size are required by regulation to have a landfill gas collection and flaring system. W12A is subject to this requirement. Landfill gas generated at landfills is a product of the anaerobic decomposition of waste materials that have been landfilled. In general, landfill gas consists of approximately 50% methane and approximately 50% carbon dioxide as well as a trace amount of other gas such as ammonia, nitrogen, and hydrogen sulfide, etc. Methane and carbon dioxide are both odourless; however both are GHGs with methane having a much larger warming potential than carbon dioxide. The trace gases have the potential to generate odour.

The landfill gas collection and flaring system at W12A is a network of landfill gas extraction wells (both vertical and horizontal) that are installed as the areas of the landfill are completed. Temporary horizontal wells are installed in partially completed areas and permanent vertical wells are installed in areas that have been filled and capped completely. Once installed the wells are connected to a system of piping that applies a vacuum and draws the landfill gas that has been captured to the flaring station where the landfill gas is combusted.

GHG emission reductions are achieved by converting the methane content of the landfill gas to carbon dioxide by combustion. Similarly, odour emissions are controlled by combustion of the trace gases present in the landfill gas.

In general, landfill gas collection and flaring system operations of Contract Record C17-009 consist of the following:

- Monitoring of the landfill gas collection system which generally consists of in-field monitoring of the landfill gas extraction wells and the piping network including drain traps and flow control assemblies etc.;
- Monitoring of the landfill gas flaring system. This involves both in-field monitoring and remote monitoring (web hosting) of the flaring system that combusts the collected landfill gas, as well as re-starts of the system as required;
- Completing routine (minor) maintenance and repairs to the system to a threshold value \$500 on a monthly basis;
- Managing system data;
- Undertaking an annual surface emission survey; and
- Assisting with regulatory reporting requirements.

### 1.3 Comcor Experience and Knowledge of W12A Landfill Gas Collection and Flaring System

Comcor provides consulting engineer services such as but not limited to design, contract administration and construction oversight for the installation, expansion, and replacement of landfill gas collection systems. In addition to consulting engineer services Comcor also provides operations and maintenance services for landfill gas collection and flaring systems once they are installed. Comcor is an industry leader in the field of landfill gas management and provides similar services to those provided to the City of London to a number Ontario and Canadian municipalities as outlined on the table below.

<b>Landfill Site Name</b>	<b>Municipality/Authority</b>	<b>Start of Service Year</b>	<b>Current Contract Term Limit</b>
Kitchener Landfill (closed)	Regional Municipality of Waterloo	1999	No (on-going no term)
Essex landfill	Essex-Windsor Solid Waste Authority	2009	No (on-going no term)
Glanbrook Landfill	City of Hamilton	2008	No (on-going no term)
Oxford Landfill	County of Oxford	2010	Yes (2023)
Halton Landfill	Regional Municipality of Halton	2007	Yes (3-year renewals)
Former Vaughan Landfill	City of Vaughan	2016	Yes (extension to 2025)
Humberstone Landfill	Regional Municipality of Niagara	2017	Yes (extensions to 2025)
Trail Road Landfill	City of Ottawa	2006	No (on-going no term)
Mohawk Landfill	City of Brantford	2021	Yes (2025)
Lindsay/Ops Landfill	City of Kawartha Lakes	2012	Yes (2027)
Merrick Landfill	City of North Bay	2021	Yes (2024)
Cornwall WDS	City of Cornwall	2010 to present	Yes (3-year renewals)
Ottawa Valley Waste Recovery Centre	Municipal Partnership (City of Pembroke, and several other municipalities)	2016	No (on-going no term)
Tom Howe Landfill	County of Haldimand	1998	No (on-going no term)
Sault Ste. Marie Landfill	City of Sault Ste. Marie	2016	No (on-going no term)
Brady Road Landfill	City of Winnipeg	2013	Yes (extensions to 2033)
Coquitlam Landfill	Metro Vancouver	2021	Yes (2025)
Eastview landfill	City of Brandon	2010	Yes
Red Deer Waste Management Facility	City of Red Deer	2019	No (on-going no term)
Vancouver Landfill	City of Vancouver	2022	Yes (2024)

Comcor is the engineer of record for the existing landfill gas flaring system at the W12A Landfill Site, which was commissioned in 2003 and has provided consulting engineer services for the design, contract administration and construction oversight services to the City of London for each of the landfill gas collection system expansions that have occurred at W12A since 2003. In addition, Comcor has provided operation and maintenance services for the landfill gas collection and flaring system since it has been commissioned and subsequently expanded at the W12A Landfill Site.

## **2.0 Discussion and Considerations**

### **2.1 Environmental Assessment (EA) for the Proposed Expansion of the W12A Landfill and Replacement Existing Landfill Gas Flaring Station**

The City has submitted an EA for the proposed expansion of the W12A Landfill Site to the MECP for the approval by the Minister. Comcor is part of the engineering design team responsible for the design and MECP approval of the engineering control systems for the proposed expanded W12A Landfill Site. Comcor's specific area of responsibility is for design of a new landfill gas flaring station and landfill gas collection system to accommodate the increased landfill gas flows from the proposed expanded landfill.

To manage greater than expected landfill gas flows from the existing W12A Landfill Site with the additional benefits of greater odour control and GHG emission reduction and in anticipation of approval of the EA by the Minister, Committee and Council approved submission of an application to the MECP to construct a replacement landfill gas flaring station with sufficient volumetric capacity to manage the current landfill gas flows and those from the proposed expanded landfill.

Comcor is the engineer of record for the larger landfill gas flaring station which was approved for construction by the MECP in November 2022. The Tender (RFT-2023-029) for the construction of the larger flaring station was administratively awarded to E.S. Fox in June 2023. Comcor was approved by Committee and Council to provide contract administration and construction oversight services for the larger flaring station.

### **2.2 Rationale for Award of Additional Two-Year Extension to Comcor**

Given Comcor's longstanding and detailed involvement with the existing landfill gas collection flaring system and their involvement with the MECP approved larger landfill gas flaring station an additional two-year extension of C17-009 to Comcor is being recommended for the following reasons.

- Awarding an additional two-year extension will ensure that the new larger landfill gas flaring station once commissioned is operated efficiently with minimal down time as Comcor is the designer of the flaring station and has extensive knowledge and experience operating and maintaining the extended landfill gas collection system at W12A.
- The landfill gas collection and flaring system is the predominant engineering control system that limits odour and GHG emissions at W12A. Ensuring the new larger flare station once commissioned operates with minimal downtime is in the City's best interest as the W12A Landfill is under increased scrutiny to control odour by neighbours and interested parties involved in the EA.
- Awarding an additional two-year extension is expected to allow for the initial portion of the new landfill gas collection systems as part of the expanded W12A Landfill Site to be integrated into the existing extended system and limit the potential for odour and GHG emissions as the system will be operated by the engineering designer and historical operator.

## 2.3 Procurement Process

In accordance with Section 14.4 (d) & (e) of the Procurement of Goods and Services Policy (14.0 Non-Competitive Purchases):

- d. There is a need for compatibility with goods and/or services previously acquired or the required goods and/or services will be additional to similar goods and/or services being supplied under an existing contract (i.e. contract extension or renewal);
- e. The required goods and/or services are to be supplied by a particular supplier(s) having special knowledge, skills, expertise or experience;

Civic Administration is recommending Comcor be awarded an additional two-year extension to C17-009 Operation and Maintenance of Landfill Gas Collection and Flaring System W12A Landfill Site for the estimated annual price of \$150,530 (excluding HST).

## 3.0 Financial Impact/Considerations

### 3.1 Operating Budget

The estimated annual price of \$150,530 (excluding HST) in accordance with the proposal from Comcor to continue to provide landfill gas collection and flaring system operation and maintenance services for an additional two-year extension can be accommodated within the base budget of the upcoming proposed 2024-2027 Multi-Year Budget. The estimated annual price is \$39,680 more than the current price. The increased price is associated with the following items:

- A significant increase in the amount of landfill gas collection system infrastructure has occurred since 2018 (year two of existing contract), including 25 vertical landfill gas extraction wells, three drain traps, three flow control assemblies, two maintenance hole connections and four horizontal landfill gas collectors which has significantly increased the time required to complete monthly monitoring rounds.
- Portions of the landfill gas collection system infrastructure have required more frequent maintenance and/or trouble shooting which has required an increase in number of confined space entries that were not originally anticipated. Each confined space entry requires confined space entry protocol be followed which includes specialized equipment and a minimum of three fully trained technicians.

## Conclusion

Comcor is the engineer of record for the existing landfill gas collection and flaring system installed at the W12A Landfill Site. Comcor has provided operation and maintenance services for the existing system since it was commissioned. Comcor is an experienced industry leader and provides similar services to several Ontario and Canadian municipalities.

Approving an additional two-year extension of C17-009 to Comcor will allow for the most efficient replacement of the existing landfill gas flaring station and is expected to decrease the potential for additional odour and GHG emissions from W12A during the process.

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**Submitted by:** Jay Stanford, MA, MPA  
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