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**REPORT TITLE: Capital Upgrades and Operational Support for the Landfill Gas Flaring Systems, Contracts 2020-439N and 2020-440N**

**FROM: Andrea Warren, Interim Commissioner of Public Works**

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## **RECOMMENDATION**

**That Contract 2020-440N for the Second Amendment to the Britannia Sanitary Landfill Site Gas Utilization Agreement and Design-Build Agreement be awarded to Integrated Gas Recovery Services Inc. in the estimated amount of \$1,697,876 (excluding applicable taxes) for capital upgrades to the landfill gas flare system, and in the estimated amount of \$337,500 (excluding applicable taxes) plus annual escalation pursuant to the terms and conditions of the subject contract, for operations, maintenance and alarm response services for the flare system for a period commencing January 1, 2021 and ending April 3, 2027;**

**And further, that staff be authorized to increase Contract 220-440N by maximum of \$300,000 to complete Major Maintenance, if required, in accordance with the terms of the subject contract;**

**And further, that staff be authorized to exercise two optional five-year Extension Terms to Contract 2020-440N, in accordance with the terms of the subject contract;**

**And further, that Contract 2020-439N for Alarm Response Services at the North Sheridan Landfill be awarded to Comcor Environmental Limited for a period of 76 months, commencing January 1, 2021 and ending April 30, 2027, in the estimated amount of \$286,320 (excluding applicable taxes) plus annual escalation pursuant to the terms and conditions of the subject contract, in accordance with Procurement By-law 30-2018, as amended;**

**And further, that staff be authorized to exercise two optional five-year Extension Terms to Contract 2020-439N, in accordance with the terms of the subject contract;**

**And further, that funds in the amount of \$666,318 from Capital Project 11-6510 be redeployed to Capital Project 18-6380 to fund the capital upgrades to the landfill gas flare system at the Britannia Sanitary Landfill Site;**

**And further, that the Commissioner of Public Works be authorized to execute the necessary agreements to carry out the directions outlined in the report of the Interim Commissioner of Public Works, titled “Capital Upgrades and Operational Support for the Landfill Gas Flaring Systems, Contracts 2020-439N and 2020-440N”, on legal terms satisfactory to the Regional Solicitor.**

## Capital Upgrades and Operational Support for the Landfill Gas Flaring Systems, Contracts 2020-439N and 2020-440N

### REPORT HIGHLIGHTS

- Two of the 20 closed landfill sites managed by the Region of Peel have landfill gas collection and flaring systems; those two sites being the Britannia Sanitary Landfill site (the Britannia site) and the North Sheridan Landfill site. The Britannia site also has a Gas Utilization Plant that converts landfill gas to electricity. The landfill gas collection, flaring and utilization components operate as an integrated and highly automated system.
- Proper maintenance of landfill gas collection and flaring systems is vital to the health and safety of the users of the sites and to the safety of surrounding homes and businesses.
- A recent condition assessment of the Britannia flare identified necessary upgrades to extend its service life and bring it into compliance with new code requirements. Work is required now to ensure the continued reliability of the system. (The North Sheridan flare was recently upgraded and is already in compliance with the new code requirements.) The landfill gas flare system at the Britannia site has been in service since 1996. Since 2003 the flare has operated as a back up to a gas utilization plant that is owned and operated by Integrated Gas Recovery Services Inc. (IGRS) under a Gas Utilization Agreement that extends until 2027.
- The Gas Utilization Agreement requires IGRS to operate and maintain the gas utilization plant and the Britannia landfill gas collection system.
- Regional staff currently operate and maintain the landfill gas flare. Staff also provide alarm response services to restart the landfill gas flare in the event of an outage. While current staff are certified to carry out this work, new technical certification requirements make it impractical for new staff be certified to do this work in the future.
- Given IGRS' current responsibilities at the Britannia site and to ensure continuity of service during the upgrades, staff is recommending that the capital upgrades to the Britannia flare be awarded to IGRS. Staff is also recommending that the ongoing operation and maintenance of the Britannia landfill gas flare, including alarm response services be awarded to IGRS whose staff possess the required technical certifications to maintain flares and provide alarm response services.
- In order to provide alarm response services in the most reliable, efficient and cost-effective manner, staff recommends that alarm response services for the North Sheridan Landfill flare be awarded to Comcor Environmental Limited (Comcor), a related company whose staff possess the required technical certifications to maintain flares and provide alarm response services.

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### DISCUSSION

#### 1. Background

The Region of Peel is responsible for the management and continuous care of 20 closed landfills throughout the Region, two of which have landfill gas collection and flaring systems; the Britannia Sanitary Landfill and North Sheridan Landfill. Having properly maintained and functioning infrastructure to manage landfill gas is vital to the health and safety of the users of the sites and the safety of the surrounding homes and businesses.

## **Capital Upgrades and Operational Support for the Landfill Gas Flaring Systems, Contracts 2020-439N and 2020-440N**

### **a) Landfill Gas Flaring Systems**

The landfill gas flare at the Britannia Sanitary Landfill Site (the Britannia site) was constructed in 1996 and operated continuously until 2003. In 2003, the Region of Peel and Integrated Gas Recovery Services Inc. (IGRS), a partnership between Comcor Environmental Limited (“Comcor”) and Walker Industries Ltd., entered into the Britannia Sanitary Landfill site Gas Utilization Agreement, an agreement which continues until April 2027 with optional extension terms. The Agreement grants IGRS permission to collect and utilize all landfill gas generated by the Britannia Sanitary Landfill for their Gas to Energy Plant located at an offsite location east of the Landfill on Plymouth Drive, and obligates IGRS to maintain the landfill gas collection system but not the landfill gas flare which remains the responsibility of the Region of Peel.

Although operated and maintained by the Region, since 2003 the landfill gas flare at the Britannia site has functioned as an integrated component of the landfill gas management system managed by IGRS. The flare provides back-up to the system to destroy the landfill gas when the Gas to Energy Plant shuts down unexpectedly or for scheduled maintenance.

Through a competitive procurement process, the Region of Peel retained Comcor to complete a comprehensive evaluation of the landfill gas flare at the Britannia Sanitary Landfill which included a condition assessment and regulatory compliance review. The condition assessment completed by Comcor recommends upgrades to the landfill gas flare that will ensure ongoing reliability, extend its service life and make it compliant with new codes. Delay in completing this work means increased risk of failure of the system.

The North Sheridan Landfill has a collection and flaring system that is operated and maintained by the Region of Peel. The flare system at the North Sheridan Landfill was replaced in 2015 and complies with new code requirements.

### **b) Alarm Response Services**

The landfill gas flares are monitored by Peel’s supervisory control and data acquisition (SCADA) system which dispatches an alarm in the event of a flare outage. When a landfill gas flare shuts down unexpectedly, it must be restarted promptly to avoid landfill gas accumulation to dangerous levels or from migrating off-site to abutting commercial or residential properties. Currently alarm response services for the Britannia Sanitary Landfill and North Sheridan Landfill are provided by Peel staff.

In Ontario, landfill gas system operators need to be licensed in accordance with O. Reg. 212/01 and O. Reg. 215/01 under the *Technical Standards and Safety Act, 2000*, S.O. 2000 and hold the Industrial Maintenance Technician certification. The Technical Standards and Safety Authority has recently taken the position that only technically qualified tradespeople are eligible to receive this certification.

Eight Peel staff, including both office and field staff, currently possess the certification necessary to provide alarm response services. The Region of Peel will not be able to continue to provide alarm response services in the long-term as staff such as supervisors and field staff will not be allowed to hold the required certification. It is, therefore, necessary to engage contracted services to provide alarm response.

## **Capital Upgrades and Operational Support for the Landfill Gas Flaring Systems, Contracts 2020-439N and 2020-440N**

### **2. Proposed Direction**

#### **a) Capital Upgrades and Operation and Maintenance Services for the Britannia Sanitary Landfill Site Flare**

Together, the landfill gas flare, landfill gas collection system and the Gas to Energy Plant form an integrated landfill gas management system. Work performed on any part of the system impacts the system as a whole and requires a high degree of co-ordination to ensure the integrated system continues to function reliably.

The landfill gas flare at the Britannia Sanitary Landfill requires capital upgrades to ensure continued reliability and to make the system compliant with new code requirements. Since IGRS has been contracted to operate and maintain the landfill gas collection system, adding the scope of work for the flare capital upgrades and for operation and maintenance of the upgraded flare, including alarm response to the Landfill Gas Utilization Agreement is the best approach to ensure the system will function reliably throughout the capital project and afterwards.

#### **b) Contracted Alarm Response Services for Landfill Site Flares**

Changes to certification requirements will make it impractical to certify new staff in the future. It is, therefore, necessary to engage contracted services to provide alarm response.

Integrated Gas Recovery Services Inc. (IGRS) and Comcor Environmental Limited (Comcor), a parent company of Integrated Gas Recovery Services Inc., can provide qualified staff possessing the required technical certifications to provide alarm response services. In order to provide alarm response services in the most reliable, efficient and cost-effective manner, staff recommends that alarm response services for the Britannia Sanitary Landfill be awarded to IGRS and that alarm response services for the North Sheridan Landfill be awarded to Comcor.

### **RECOMMENDED NEXT STEPS**

It is recommended that Peel award Contract 2020-440N to amend the Britannia Sanitary Landfill Site Gas Utilization Agreement with Integrated Gas Recovery Services Inc. The amendment requires IGRS to perform the capital upgrades through a design-build agreement in the quoted amount of \$1,697,876 (excluding applicable taxes), and to operate, maintain, repair and provide alarm response services for the upgraded flare system in the quoted amount of \$337,500, (excluding applicable taxes), for the term until April 3, 2027, which does not include any costs for major maintenance or replacements. Staff recommend authorization to increase the contract by a maximum of \$300,000 over the term of the contract to cover major maintenance and replacement costs if required.

It is further recommended that Peel enter into a new Contract 2020-439N in the amount of \$286,320 (excluding applicable taxes) with Comcor for after-hours alarm response services for the North Sheridan Landfill flare for a term that continues until April 30, 2027 with two optional five-year terms extensions (to match the term of the agreement at Britannia).

## Capital Upgrades and Operational Support for the Landfill Gas Flaring Systems, Contracts 2020-439N and 2020-440N

### RISK CONSIDERATIONS

It is recommended that capital upgrades to the Britannia flare be completed through a design-build agreement and an amendment to an existing operations agreement to provide a system that is compliant with new codes and regulations. Further delay in completing the necessary capital upgrades would put the Region of Peel at risk of receiving orders or fines from the Technical Standards and Safety Authority.

The risk of not having an adequate number of certified Region of Peel staff to provide the required after-hours support can be mitigated by contracting alarm response services to a qualified vendor capable of performing system repairs to minimize system down-time thereby preventing potential off-site gas migration to adjacent residential and commercial properties.

### FINANCIAL IMPLICATIONS

The estimated total cost of the capital upgrades project is \$2.0 million. This cost includes the capital work from IGRS in the amount of \$1,697,876 and costs for approvals, permits, internal services, and owner's engineer for inspection and contract administration services. The estimated costs also include approximately \$300,000 for major maintenance. Funds are available in Capital Accounts 18-6380 (\$1.7 million) and 11-6510 (\$666,000). It is recommended that funds from Capital Project 11-6510 be redeployed to Capital Project 18-6380.

Quoted costs for the contracted services for the operation and preventative maintenance services for the flare system at the Britannia Sanitary Landfill site and the after-hours alarm response services for the flare system at the North Sheridan Landfill site for the terms of the Agreements are \$337,500 and \$286,320, respectively. This represents an annual operating cost increase of approximately \$100,000 which will be mostly offset in 2021 by a reduction in Region of Peel staff standby and on-call pay.

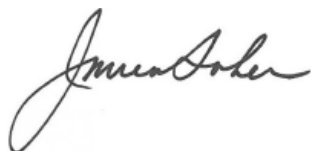
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*For further information regarding this report, please contact Norman Lee, Director, Waste Management, Ext. 4703, [norman.lee@peelregion.ca](mailto:norman.lee@peelregion.ca).*

### ***Reviewed and/or approved in workflow by:***

Department Commissioner, Division Director and Financial Support Unit.

Final approval is by the Chief Administrative Officer.



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J. Baker, Chief Administrative Officer