

Dufferin Organics Processing Facility Update and Contingency Processing Capacity

Date: March 26, 2025

To: Infrastructure and Environment Committee

From: General Manager, Solid Waste Management Services

Wards: All

SUMMARY

The City's Green Bin program helps to divert waste from landfill by collecting and processing organics from approximately 460,000 single-family homes, and approximately half of apartment and condominium units, as well as small businesses, schools and City Divisions, Agencies and Corporations. The City of Toronto (City) owns and operates two organic processing facilities: the Disco Road Organics Processing Facility (Disco OPF) and the Dufferin Organics Processing Facility (Dufferin OPF). The Disco OPF is designed to process 75,000 tonnes of organics per year and the Dufferin OPF is designed to process 55,000 tonnes of organics per year, for a combined City-owned processing capacity of 130,000 tonnes per year. Solid Waste Management Services (SWMS) is currently collecting approximately 168,500 tonnes of organics annually and utilizing third-party processors to supplement the City's processing capacity.

Late last year, the Dufferin OPF experienced various challenges which made it unable to process material. To assist with meeting processing capacity shortfalls, SWMS utilized existing third-party processors and non-competitive procurements.

The purpose of this report is to provide an update on the Dufferin OPF and seek authority to secure additional external organics processing capacity and external haulage, on an as needed or contingency basis to ensure continuity of processing of Green Bin organics in the event of unexpected facility issues and throughout the Council-approved expansion of the Disco Road OPF and improvements to the Dufferin OPF.

RECOMMENDATIONS

The General Manager, Solid Waste Management Services recommends that:

1. City Council authorize the General Manager, Solid Waste Management Services or designate to negotiate, enter into, and execute any new or amending agreements, or acknowledgements - including on the basis of a non-competitive procurement under Toronto Municipal Code Chapter 195, Purchasing - for contingency external organics processing and external waste haulage up to \$2,500,000 per vendor and not to exceed \$12,500,000 in total expenditures, on terms acceptable to the General Manager, Solid Waste Management Services, and on terms satisfactory to the City Solicitor.

FINANCIAL IMPACT

There will be no financial impact resulting from adoption of this report.

The 2025 Operating Budget for Solid Waste Management includes a combined total of \$33,975,758 budget for internal and external contracted organic processor and waste hauler expenditures.

The required funding for each negotiated agreement with external organic processors and external waste haulers, will have a maximum limit of \$2,500,000 net of taxes and charges (\$2,544,000 net of HST recoveries) and be subject to annual Consumer Price Index (CPI) adjustments. Each negotiated agreement will be funded from the existing Council approved budget for Solid Waste Management Service.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information as presented in the Financial Impact Section.

DECISION HISTORY

At its meeting on August 21, 2024, Bid Award Committee adopted Item BA93.11 entitled "Award of Document Number 4330342141 to Veolia Water Canada Inc. for Operations and Maintenance Services at the City of Toronto's Dufferin Organic Processing Facility", and directed the General Manager, Solid Waste Management Services, to grant authority to award the contract in accordance with the Contract Details set out in the report (August 15, 2024) from the Chief Procurement Officer.

The Bid Award Panel Decision document can be viewed at:
<https://secure.toronto.ca/council/agenda-item.do?item=2024.BA93.11>

At its meeting on April 17 and 18, 2024, City Council adopted Item 2024.IE12.2 entitled "Organics Processing Facilities Update" and directed that the Confidential Attachment to the report (March 13, 2024) from the General Manager, Solid Waste Management Services, remain confidential in its entirety indefinitely, as it relates to a position, plan,

procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the City of Toronto.

The City Council Decision document can be viewed at:

<https://secure.toronto.ca/council/agenda-item.do?item=2024.IE12.2>

At its meeting on September 30, October 1 and 2, 2015, City Council adopted Item 2015.PW7.10 entitled " Contract Award - Request for Proposals No. 9117-14-3049 Design, Build, Operate and Maintain the Expanded Dufferin Organics Processing Facility", and direct the General Manager, Solid Waste Management Services to report back to the Public Works and Infrastructure Committee on future beneficial uses of the derived biogas from the Dufferin Organics Processing Facility, including but not limited to cogeneration, renewable natural gas and district heating opportunities for local businesses and institutions.

The City Council Decision document can be viewed at:

<https://secure.toronto.ca/council/agenda-item.do?item=2015.PW7.10>

COMMENTS

Overview

The City's Green Bin program helps to divert waste from landfill by collecting and processing organics from approximately 460,000 single-family homes, and approximately half of apartment and condominium units, as well as small businesses, schools and City Divisions, Agencies and Corporations. The program plays a critical role in diverting organics from landfill where they would create harmful greenhouse gas emissions. Solid Waste Management Services (SWMS) currently collects and processes approximately 168,500 tonnes of Green Bin organics annually from all City customers.

A combination of City-owned facilities and external processors are utilized to effectively manage the organic waste, with external contracts helping to ensure that the City can efficiently process the collected organics, meet demand during peak periods, handle unforeseen circumstances and maintain environmental compliance.

Current Organics Processing Capacity

City-Owned Facilities

The City owns and contracts the operations and maintenance of two organics processing facilities, the Disco Road and Dufferin Organics Processing Facilities (Disco Road OPF, Dufferin OPF), which together have a combined designed processing capacity of 130,000 tonnes per year (75,000 tonnes and 55,000 tonnes, respectively). Both facilities use anaerobic digestion technology, in which microorganisms break down

organic material in the absence of oxygen to produce digestate and biogas. Digestate is used to create high-quality compost that can be used to feed and nourish soil. The City is upgrading the biogas produced into renewable natural gas and injecting it into the natural gas grid for use in the City fleet and buildings, resulting in a reduction of greenhouse gas emissions.

The contracted operator of the Dufferin OPF, experienced significant challenges at the site in 2024 which impacted its ability to process material. In October of 2024, one of the two anaerobic digester tanks unexpectedly ruptured. The root cause is currently under investigation by the City's insurer, and the tank is out of service, significantly reducing the City's processing capacity.

Shortly after the rupture of the digester, SWMS awarded a new five-year operation and maintenance contract for the Dufferin OPF to a new operator, Veolia Water Canada Inc. At the time of the handover, the facility was not in an operable state. As a result, the City has had to rely heavily on emergency non-competitive procurements together with existing external processors to adhere to the City transfer stations' Environmental Compliance Approval (ECA) and ensure continuity of processing and diversion of Green Bin organics from landfill.

External Organic Processing Contracts

The City's two existing competitively procured external contracts allow for a combined processing capacity of 45,000 tonnes over a four-year term and expire May 31, 2025. Within the last year, contingency funds have been utilized to increase the organic material sent to these processors due to the Dufferin OPF issues. Although staff have diligently expedited the drafting of a new external processing call document, there is a risk that the award will not be completed in time to ensure operational continuity.

The procurement call for external processors includes minimum and maximum capacity requirements. The minimum represents the minimum tonnage the City must supply to the vendor (put or pay amount), and the maximum represents the maximum amount of capacity the supplier must make available to the City (guaranteed space at the contracted facility). There is also contingency capacity solicited in these contracts, however, this space is not guaranteed as vendors actively try and sell their capacity based on guaranteed tonnage. The minimum and maximum capacities in contracts are tied to one another. As a result, increasing the maximum capacity would also mean increasing the minimum put or pay, which would have financial risks, as the City would have to pay the vendor if it cannot deliver the minimum tonnage required. Since it is not yet known when the Dufferin OPF will restore normal operations, it is difficult to estimate what an increased minimum put or pay should be. As a result, SWMS requires the flexibility to be able to retain additional contingency processing capacity as needed to manage financial risk and help to ensure continuous processing in the event that the processing capacity needed is beyond what is available in the external processing contracts.

Each of the emergency non-competitive procurements (NCP) awarded to manage the capacity shortfalls resulting from the Dufferin OPF issues had a six-month term (with a three-month extension option) and up to a maximum spend of \$500,000. Beginning July

9, 2024, GFL Environmental Inc. and Walker Environmental Group Inc. were retained to process a total of 2,747 tonnes and 3,846 tonnes of organics respectively with a contract end date of April 7, 2025. On January 10, 2025, two additional NCPs began with Convertus Canada Ltd. and Miller Waste Systems Inc., to provide processing up to a total of 2,958 tonnes and 4,000 tonnes respectively with a contract end date of October 11, 2025. It is expected that these contracts will be exhausted before the contract end date and before Dufferin OPF resumes operations.

Authority to retain additional contingency processing capacity as needed will help to ensure continuous processing and haulage services during this pivotal time and provide access to processing capacity if needed as the City moves forward with the Council-approved Dufferin OPF improvements and Disco OPF expansion, which may impact processing capacity temporarily while construction work is undertaken.

Dufferin OPF

The new operator and SWMS have expedited work to resume operations at the Dufferin OPF. The start up requires a comprehensive approach to ensure the facility systems are brought back online in a systematic way to uphold performance and safety standards. The work to resume operations is estimated to be complete end of May 2025.

Once the facility resumes processing, SWMS plans to initiate Council-approved improvements to the Dufferin OPF to enable the facility to meet the desired performance specifications. The primary objective is to upgrade the pre-processing technology to recover a higher percentage of the organics processed at the facility and be able to produce a larger volume of biogas. It is also anticipated that the upgraded equipment will increase the processing capacity of the site.

Disco Road OPF

The City is planning to expand the Disco OPF to increase its processing capacity from 75,000 tonnes per year up to 140,000 tonnes per year. The Council-approved expansion is expected to be complete in 2028 and will allow the City to process all of the organics it collects at City-owned facilities.

The Dufferin OPF improvements and Disco OPF expansion will reduce the City's need for external contractors to manage current and future growth-related organics processing demands, reduce greenhouse gas emissions and increase the amount of organics that can be diverted from landfill and the amount of renewable natural gas that can be generated at the facilities.

Until these projects are completed, however, authority to retain additional contingency processing capacity as needed will help to ensure continuous processing and ECA compliance in event of any facility issues and throughout the construction of these projects, which may at times require temporary shutdowns of operations.

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SIGNATURE

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