

# Information Report

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Service Area	Infrastructure, Development and Enterprise Services
Date	Friday, September 25, 2020
Subject	<b>Yard Waste Program – Update on Solid Waste Review</b>

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## Executive Summary

### Purpose of Report

The purpose of this report is to inform City Council and Guelph residents on the proposed plan to increase the service level of curbside yard waste collection to bi-weekly from April to November and the associated adjustment in the hours of operation of the Public Drop-off in order to better align resourcing and community needs.

### Key Findings

Providing bi-weekly curbside collection of leaf and yard waste during the growing season (spring through fall) provides many benefits.

The proposed collection schedule aligns the City of Guelph's service level with our municipal comparators while also addressing resident dissatisfaction with the current twice per year service. Greenhouse gas emissions are anticipated to be reduced by 200 tonnes CO<sub>2</sub>e per annum (net of collection vehicle emissions) by decreasing light vehicle travel to the Waste Resource Innovation Centre site. Public drop-off site logistics and safety would improve and the Waste Resource and Innovation Centre footprint and infrastructure needs would be optimized. It would reclaim Organic Waste Processing Facility capacity and reduce the risk of Organic Waste Processing Facility process disruption and odours.

Solid Waste Resources has trialed adjusting the site hours by opening the household hazardous waste facility on Mondays and reducing the early morning and late afternoon hours of operation of the Public Drop-off to better reflect seasonal and site utilization patterns since February 2019.

This change in yard waste collection addresses the final outstanding recommendation from the Council endorsed Solid Waste Service Review (2018) to "increase service level for the curbside yard waste collection program to bi-weekly collection during growing season."

### Financial Implications

Solid Waste Resources Staff, through assessment and Guelph-specific experience, have been able to integrate the expanded bagged yard waste collection program within its existing in-house operations to bring this increase in service level within its existing base budget at \$0 net impact to the tax base.

The main drivers include:

- Experience gained through implementation of the COVID-related interim curbside yard waste program and identification of opportunities for enhanced integration with the City's existing curbside collection program, resources and assets;
- Reallocation in expenses of \$98,000 per annum due to providing the collection service in house rather than using a third party contractor;
- Optimizing site hours allowing for temporary staffing resources and funds required for temporary seasonal staff (two 6 month contracts) to be converted to 1 full time equivalent to be reassigned to meet the needs of the enhanced yard waste program;
- Reduction in expenses from processing of yard waste in the Organic Waste Processing Facility \$83,700 per annum; and,
- Increased revenues of \$141,600 from commercial yard waste customers and residents who choose to drop off yard waste at the Waste Resource Innovation Centre and pay a minimum site fee.

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## Report

### Details

The purpose of this report is to inform City Council and Guelph residents on the proposed plan to increase the service level of curbside yard waste collection to bi-weekly from April to November. With this change there would be an associated adjustment in the hours of operation of the Public Drop-off in order to better align resourcing and community needs. As part of the 2021 budget deliberation process, Solid Waste Resources proposes to:

1. Implement the Council endorsed recommendation from the Solid Waste Business Service Review Recommendation #1 to "increase service level for curbside yard waste collection program to bi-weekly collection during growing season" starting in 2021; and,
2. Permanently open the household hazardous waste facility on Mondays and reduce the early morning and late afternoon hours of operation of the Public Drop-off to better reflect seasonal and site utilization patterns in alignment with Solid Waste Business Service Review Recommendation #4 to "consider alternate service levels for Public Drop-off hours of operation".

### Service Review status

Solid Waste Resources underwent the first service review as a pilot of the Council approved Business Service Review framework ([CS-2016-61](#)). The final report was received by Council in May 2018. In all 11 recommendations were presented aimed at enhancing services and efficiencies. Council directed staff to proceed with the implementation of the recommendations. Since that time 7 recommendations have been completed and another 3 recommendations are in progress and are underway through the Solid Waste Management Master Plan process. This report speaks to, and actions, the final outstanding recommendation to "increase service level for the curbside yard waste collection program to bi-weekly collection during growing season"

## **Yard waste program background**

The City of Guelph currently provides bagged curbside collection of leaf and yard waste through a contracted service twice a year (spring and fall). In addition, loose leaf collection is provided by the Operations department once per year, in the fall. Leaf and yard waste can also be dropped off at the Public Drop-off by residents at no charge throughout the year.

In 2019, approximately 2,700 tonnes of leaf and yard waste were collected and an additional 4,900 tonnes were dropped-off, resulting in approximately 7,600 tonnes being sent to processing.

## **Comparator benchmarking**

During the Service Review it was identified that all comparator municipalities, with the exception of the City of Guelph, provide seasonal curbside collection of bagged leaf and yard waste either weekly or bi-weekly during the growing season (approximately April to November).

## **Engagement results**

Engagement activity conducted during the Review indicated that relative to other services in the survey, leaf and yard waste had the highest dissatisfaction rate among respondents at 20 per cent dissatisfied and 20 per cent neither satisfied nor dissatisfied. Survey respondents highlighted the need for more frequent leaf and yard waste curbside pick-up.

This theme was also received across engagement feedback as part of the Waste Management Bylaw in 2018 and continues to be received through anecdotal feedback from customers' interaction and communication with staff during collection and public drop-off service delivery.

## **Greenhouse gas emission reduction**

There is an average of 62,500 vehicle trips to the Public Drop-off per year to dispose of yard waste. Providing curbside pickup throughout the growing season could reduce greenhouse gas emissions from vehicle trips to the Public Drop-off. Using an assumption of 80 per cent resident participation in bi-weekly curbside yard waste collection, this could reduce annual vehicle trips through the Public Drop-off by approximately 50,000. This reduction would result in a potential greenhouse gas reduction of 200 tonnes CO<sub>2</sub>e per annum (net of collection vehicle emissions) by decreasing light vehicle travel to the Waste Resource Innovation Centre site.

## **Site logistics and safety improvements**

Minimizing traffic and site congestion at the Public Drop-off by reducing vehicle trips would also help realize enhanced site management logistics and safety benefits as identified in the 2016 Waste Resource Innovation Centre Site Logistics, Yard Waste and Rate Structure Council report, as well, as address resident feedback received during the 2017 Customer Journey Mapping exercise. Benefits include:

- Enhancing way-finding and improving traffic flow with more intuitive and less looping or cross flowing of traffic;
- Minimizing interaction and promote separation of service vehicle access, commercial heavy vehicles and light passenger vehicles on site; and
- Ensuring traffic awaiting service does not backup and block public roads.

## **Waste Resource Innovation Centre footprint and infrastructure needs**

As identified in the 2016 Waste Resource Innovation Centre Site Logistics, Yard Waste and Rate Structure report to Council, the long-term vision for the site is to consolidate the yard waste pad and recycle zone from Gate 3 to a new Public Drop-off at Gate 1. Gate 1 will be dedicated to Public Drop Off for waste, recyclables and yard waste, Gate 2 will be dedicated to Commercial traffic, and Gate 3 will be dedicated to Household Hazardous Waste and Paint Plus Reuse / Bike ReCycle programs.

The aging yard waste pad at Gate 3 requires repairs which have been deferred given the plan to decommission this site. Based on preliminary design work, the cost to continue status quo at Gate 3 is estimated to be \$100,000 – \$200,000.

The 2018 Facility Needs Assessment identified the need for the Collections Operation Centre to replace the prior decommissioned facility that was located on Municipal Street. The 2019 Solid Waste Resources Site Design Assessment identified the existing yard waste pad at Gate 3 as being preferred thereby maximizing utilization of the existing site footprint and preserving existing green field for future expansion or other needs. The Collection Operations Centre is planned to begin construction in 2021.

Scale upgrades planned for Gate 1 are ongoing. Gate 1 Public Drop-off is already set up to receive yard waste and recycling, however, it is important to note the scale design is predicated on a curbside yard waste program being implemented and the current practice being discontinued. The design addresses peak capacity needs excluding residential yard waste from light vehicles. For context, one (1) packer of yard waste is roughly the equivalent of 100 cars. Currently yard waste volumes alone can more than double site utilization.

## **Organic Waste Processing Facility Capacity and Efficiency**

Currently, the yard waste collected as “top up” in the green bin is processed in the Organic Waste Processing Facility, whereas, yard waste collected in the bagged yard waste program is composted offsite

Removing yard waste top-up from the Green Cart program (900- 1,200 tonnes per year) and moving it to a dedicated bagged yard waste collection program translates into available capacity that could be used for source separated food waste related to City growth, as well as, additional capacity for organics processing contracts (similar to the contract with the Region of Waterloo) that can generate revenue for the City. Eliminating yard waste from the green cart program equates to a \$1.0M to \$1.1M worth of organic waste processing capacity over the next seven to nine years that could be better utilized to support City growth and revenue from third party contracts.

Shaving peak loading to the Organic Waste Processing Facility in the summer months attributable to green cart top up of yard waste materials during the growing season will also reduce risk related to odours due to process upset by increasing process stability. Odour control is a condition of approval under our Environmental Compliance Approval issued by the Ministry of Environment and Parks.

## **Harmonization with the City's Loose Leaf Program**

In addition to the existing and proposed curbside program the City also conducts loose leaf pick in the fall to address peak leaf shedding in areas of the City with mature tree canopy. This service is provided by the Operations Department and is completed between the 15th and 30th of November annually. It should be noted that the curbside program and the loose-leaf collection program are complimentary to one another.

## **Proposed Plan**

The proposed plan is to bring forward a budget request as part of this fall's Council budget process to implement an expanded bagged yard waste program to increase the service level of curbside yard waste collection from twice per year to biweekly collection from the beginning of April to the end of November, starting in 2021.

Staff have revisited the proposed yard waste budget requests based on feedback received from Council as part of the Service Review on May 28th, 2018 and through the 2019 Council budget meetings. Further, as a result of COVID mitigations, staff were able to empirically trial a curbside yard waste program in the spring of 2020. Attachment 1 shows the reduction in the number of vehicle trips to the Public Drop-off and amount of yard waste collected at the curb.

Based on the reassessment and empirical experience, staff have been able to integrate this program in-house within its existing operations to bring this increase in service level within its existing base budget at \$0 net impact to the tax base.

A combination of factors have allowed for the program expansion to be accommodated within the existing Solid Waste Resources budget. The main drivers are discussed below.

- Leveraging equipment rental trucks, economies of scale of fleet trucks and recent diversification of the fleet.
- Reallocation in expenses of \$98,000 per annum due to providing the collection service in-house rather than using a 3rd party contractor.
- Optimizing site-hours allowing for resources and funds required for temporary seasonal staff (two 6 month contracts) to be reassigned to meet the needs of the program i.e., 1 full time equivalent.
- Reduced operating costs from the processing of yard waste in the Organic Waste Processing Facility \$83,700 per annum.
- Increases seen in revenue from commercial yard waste customers estimated at \$30,000 per annum identified through COVID that were previously not identified as commercial due to limitations in regulating the free residential yard waste operation.
- Moving to an expanded curbside yard waste collection program in conjunction with a minimum site fee is recommended by staff. Estimated revenue generated through application and collection of the minimum site fee of \$10 per visit or \$111,600 per annum for residents choosing to use the site. Yard waste dropped off on-site would no longer be free since there is now a dedicated spring through fall curbside program.

## **Measurement of Success**

If Council approves the proposed plan, the program's measurement of success would be evaluated on the projected assumptions including anecdotal feedback from customers, annual tonnes of yard waste collected at the curb, reduction in the number of vehicles and associated greenhouse gas emissions from unnecessary visits to the Public Drop-off for yard waste, site logistics and footprint optimization, Organic Waste Processing Facility capacity, and revenue from the minimum site fee. Staff would continue to make adjustments as required.

## **Financial Implications**

Staff have been able to integrate the expanded bagged yard waste collection program in house within its existing operations to bring this increase in service level within its existing base budget at \$0 net impact to the tax base.

The main drivers include:

- Reallocation in expenses of \$98,000 per annum due to providing the collection service in-house rather than a using a third party contractor have been reallocated to offset increased program expenses;
- Optimizing site hours allowing for temporary staffing resources and funds required for temporary seasonal staff (two 6 month contracts) to be reassigned to meet the needs of the program;
- Reduction in expenses from processing of yard waste in the Organic Waste Processing Facility \$83,700 per annum have been reallocated to offset additional increased program expenses; and,
- Increased revenues of \$141,600 from commercial yard waste customers and residents who choose to pay the minimum site fee to drop off yard waste at the Waste Resource Innovation Centre.

## **Consultations**

Engagement activity conducted in 2016 and during the service review indicated that relative to other services in the survey, leaf and yard waste had the highest dissatisfaction rate among respondents. Survey respondents highlighted the need for more frequent leaf and yard waste curbside pick-up. This theme was received across engagement feedback as part of the Waste Management Bylaw and continues to be received through anecdotal feedback from customers' interaction with staff during regular seasonal service delivery communication.

During municipal comparator analysis it was identified that all comparator municipalities, with the exception of the City of Guelph, provide seasonal curbside collection of bagged leaf and yard waste either weekly or bi-weekly during the growing season.

Operations were part of the consultations during the service Review and conversations have been ongoing with respect to service needs and delivery.

A communications campaign will be delivered upon Council approval of an expanded bagged yard waste collection program.

## **Strategic Plan Alignment**

Sustaining our future: Mitigate climate change by reducing Guelph's carbon footprint.

Providing bi-weekly curbside collection of leaf and yard waste during the growing season (spring through fall) would result in a potential greenhouse gas reduction of 200 tonnes CO<sub>2</sub>e per annum (net of collection vehicle emissions) by decreasing light vehicle travel to the Waste Resource Innovation Centre site.

Working together for our future: Develop a long-term financial and resource strategy that is achievable and affordable.

Through the proposed plan, the City is expressing its desire to improve bagged yard waste collection service levels and harmonizing with comparator municipalities in a financially viable manner at a net \$0 impact to the tax base. This program plan also found efficiencies through integrating existing fleet, public drop-off resources and minimizing operating and capital cost impacts of processing yard waste at the Organic Waste Processing Facility.

## **Attachments**

Attachment-1 Vehicle Trips to the Public Drop-off and Amount of Yard Waste Collected at the Curb

## **Departmental Approval**

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