



## Committee of the Whole Report

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**Report Number:** WM2023-009  
**Meeting Date:** June 6, 2023  
**Title:** **Source Separated Organic Diversion Request for Information Submission and Options**  
**Description:** Review the feasibility of options for a SSO program and associated cost estimates  
**Author and Title:** David Kerr, Manager Environmental Services

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### Recommendation(s):

**That** Report WM2023-009, **Source Separated Organic Diversion Request for Information Submission and Options**, be received; and

**That** this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

**Department Head:** \_\_\_\_\_

**Financial/Legal/HR/Other:** \_\_\_\_\_

**Chief Administrative Officer:** \_\_\_\_\_

**Background:**

At the Council Meeting of December 14, 2021, Council adopted the following resolution:

**CR2021-656**

**That** Report WM2021-016, **Source Separated Organics Feasibility Review**, be received; and

**That** Staff be directed to issue an expression of interest to determine potential options for a Source Separated Organics diversion program.

This report addresses that direction.

As background, The Food and Organic Waste Policy Statement, was issued under section 11 of the Provincial "*Resource Recovery and Circular Economy Act, 2016*". The statement outlines food and organic waste reduction targets for qualifying municipalities, including the City of Kawartha Lakes (City), to meet. It is the interpretation of Staff that the City fits into category 4.2 ii a, which is defined as a municipality within southern Ontario that does not currently have curbside collection of SSO and the population of the local municipality is greater than 50,000 and the density of the local municipality is less than 300 persons per square kilometer.

The policy statement clarifies that the City should target collection (reduction of food and organic waste from being landfilled) for single family dwellings in an urban settlement area within the local municipality. The Urban Settlement Areas (such as cities, towns and villages) are defined as built up areas where development is concentrated and which have a mix of land uses. In consultation with our Development Services Division for the City, the communities that qualify under this policy statement are Lindsay, Bobcaygeon, Fenelon Falls and Omemee.

It is key to note that "collection" as referenced above does not necessarily mean curbside collection. Specifically, the target identified in the Policy Statement based on the categories above is, "*50% waste reduction and resource recovery of food and organic waste generated by single-family dwellings in urban settlement areas by 2025.*"

This target applies to the 4 communities mentioned above. The policy statement continues to clarify for municipalities subject to 4.2 ii:

- i. Curbside collection of source separated *food and organic waste* is the preferred method of servicing single-family dwellings.
- ii. Alternatives to curbside collection or source separation of *food and organic waste* may be used if it is demonstrated that provincial *waste reduction and resource recovery* targets can be achieved efficiently and effectively.

So alternatives to curbside collection can be considered by Council provided targets can be achieved.

The policy statement does clarify requirements for SSO pertaining to multi-unit residential buildings. The building owners are required to provide SSO collection alternatives for their residents. Similarly, there are requirements for industrial, commercial and institutional sectors to implement SSO programs when certain criteria are met.

It should be noted the Ministry of the Environment Conservation and Parks' (MECP) "Made in Ontario Environment Plan" titled "Preserving and Protecting our Environment for future Generations" is recommending potential future bans on food waste going to landfill and will be consulting with key partners such as municipalities, businesses and the waste industry. It is essential the City prepare for this potential requirement, though the City does not need to take immediate action.

In response to Council's resolution, Staff released a Request for Information (RFI) for a SSO program out to the marketplace in April of 2022. The RFI received 6 responses of different natures with information and interest in working with the City. Below is a summary of the types of responses received. Specific pricing and details from the submissions are confidential.

- Two responses offered a full-scale SSO program including curbside collection, transportation and processing services.
- Two responses offered transportation and processing of SSO only.
- One response offered processing of SSO only.
- One response offered providing plug in counter top composters.

While guaranteed pricing is not part of the RFI process there were cost estimates provided in several of the submissions. The cost estimates provided in this report would need to be confirmed through a formal procurement process.

The Council Report from December 2021 highlighted several different options that the City could pursue. The options that were presented are below.

### **Collection Options**

1. Curbside Collection (Urban or City-wide)
2. Composting (backyard and countertop)
3. Drop-off facilities
4. Hybrid (two or more of the above options)

### **Processing Options**

1. Transfer to private processing facility
2. Process at City owned facility
3. Process at mutual benefitting City and partner facility

Based on the analysis of the options presented in the 2021 Council report, Collection Option 1 Curbside Collection in Lindsay, Bobcaygeon, Fenelon and Omemee (Urban areas) is likely to be the most accepted way to meet policy targets, although it is also the most expensive. Collection City-wide is the most likely way to meet the City's self imposed diversion goals of 70% diversion in the waste strategy. However, residents would still be welcome to backyard and/or countertop compost in addition to curbside collection program in this scenario.

The City did not receive any responses to the RFI which included processing at an owned or partnership facility in City. Those options would require significant capital costs and have other issues such as siting, odours, vermin etc., which were discussed in the original Council report. Although a Processing facility in the City is costly there may still be opportunity to partner with a local business to establish a processing facility or partner with a neighboring municipality for processing which would significantly reduce costs.

### **Rationale:**

As indicated, the provincial mandate to reduce food waste will take effect January 1, 2025. The regulation sets a target for our municipality to "reduce 50% of food waste from single-family dwellings in urban settlement areas". To meet this 2025 target, the City will need to start a SSO diversion program in the urban settlement areas of Lindsay, Bobcaygeon, Fenelon Falls, and Omemee. Should Council choose to expand a

SSO program into the entire municipality (rural and urban) this can be done as of Jan 1, 2025 or phased in at a later date. Although a full city-wide program would likely over exceed the regulatory target of 50% diversion of food waste it would benefit the municipality in helping to achieve additional diversion from landfill. It is important to note that the self imposed goal of 70% diversion of waste from the residential stream is part of the City's Integrated Waste Management Strategy that was endorsed by Council. However, the strategy indicates that the 70% diversion target will include a number of different programs including SSO.

For reference there are significant cost savings in diversion of SSO. Staff has estimated 4500 tonnes of SSO are generated in the City based on previous studies by UEM. The total number of households in the City are estimated at 38,600. Of this total, the urban areas account for an estimated 13,600 households or 35%. Based on this percentage, collection in urban areas would potentially divert approximately 1600 tonnes of SSO per year (35% of 4500 tonnes).

This 1600 tonnes equates to total volume estimate of 9800m<sup>3</sup>. This landfill space freed up by removing SSO in comparison to space otherwise used up by municipal waste is 6860 tonnes (assuming a density of 0.7). At \$150/tonne (cost of deferred space savings) the 6860 tonnes of space is an estimated \$1 million savings per year. This equates to extending the site life at Lindsay Ops landfill by approximately 11.5 weeks each year based on annual tonnage received at the site. This is 22% of the total volume of waste received per year at Lindsay Ops. An entire City-wide ban on organics going to the landfill could divert 4500 tonnes of SSO per year. The ongoing savings from diversion of 4500 tonnes of SSO per year equates to an estimated 28,000 m<sup>3</sup> or \$2.8 million per year in landfill site life.

There are other potential savings to supplement a SSO program but the true cost of those savings are undetermined at this point. For instance, there may be savings through the blue box transition program. As well, an RFP process would need to be undertaken to determine the actual program costs. Although these will factor in the final cost versus savings of a SSO program, the annual savings through deferred landfill space are the known factors and will significantly offset program expenses. In order to achieve maximize diversion there would have to be strict control through By-laws and collection services enforcing proper participation. As well there would need to be strong enforcement to ensure no illegal dumping. Also for any option involving backyard

composting, there would need to be education and plans to ensure composters are used properly and not impacted by animals and vermin.

### **Other Alternatives Considered:**

Staff have identified multiple options with pros and cons for Council review. Of note these options apply to a SSO diversion program that will start Jan 1, 2025. It should be noted that all of these items would include an amendment to the Waste By-law prohibiting SSO from being placed in curbside waste bags within the determined areas.

The options are as follows:

1. Curbside collection in urban areas only
2. Curbside collection City wide
3. Backyard composting in urban areas only
4. Backyard composting City wide
5. Counter top composting in urban areas only
6. Counter top composting City wide
7. Drop off facilities at Somerville and Lindsay landfills to service the urban areas
8. Drop off facilities at all open landfills to service City-wide
9. Hybrid option

Pros and cons of each option as well as estimated costs are included in the attached table. It is important to note that all these options were presented to the Waste Management Advisory Committee (WMAC) on May 3, 2023. After considerable discussion on the options, it was generally agreed that the City should proceed with the option that best ensured compliance with the Province. Based on the Province's statement that the best way to ensure 50% diversion is through a curbside collection program. In keeping with this recommendation from the province, the WMAC made the following resolution:

### **WMAC2023-009**

**Moved By** J. Taylor

**Seconded By** D. Joyce

**That** curbside collection in urban areas is recommended as the preferred option and **That** dependant on the results of the curbside collection in the urban area, consideration be given to progressively expanding collection to the rural area and

**That** if Curbside collection of SSO is endorsed by Council then the Waste bylaw be amended to ban SSO in curbside waste specific to the corresponding area in which SSO is collected

### **Alignment to Strategic Priorities:**

A SSO program would be in line with the Strategic Priority of, A Healthy Environment. One of the main items under this priority, is to 'increase waste reduction and diversion'. With the implementation of a SSO, the City has the opportunity to divert significant waste from landfills and meet diversion targets, which would directly correlate with this priority's objectives.

### **Financial/Operation Impacts:**

Preliminary cost estimates for each option are included with the pros and cons in the attached table. The costs provided are rough estimates and should be used only for general comparison with each other. This table has been provided to assist Council to select the preferred option(s). After Council selects the preferred option(s), the costs will be confirmed through the appropriate procurement process. Once costs are confirmed staff will budget accordingly and make applications with the MECP to secure any required approvals for the selected program to commence in January, 2025.

### **Consultations:**

Waste Management Advisory Committee

### **Attachments:**

Appendix A – Source Separated Organics Program Options and Estimated Costs



Appendix A –  
Source Separated O

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**Department Head: Bryan Robinson**

Option	Cost	Pros	Cons
1. Curbside collection in urban areas only	<ul style="list-style-type: none"> <li>· \$1.5 million (one time)-consolidation site</li> <li>· \$500,000 (one time)-2 containers per household + delivery</li> <li>· \$1.2 million (annual)-collection/transfer/process</li> </ul> <p><b>Total \$3.2 million (\$1.2 million annually)</b></p>	<ul style="list-style-type: none"> <li>· Most convenient collection option for residents</li> <li>· Will likely meet MECP diversion target of 50% food waste reduction</li> <li>· Preferred collection method of MECP for highest potential to meet required targets</li> <li>· Likely to experience highest participation from residents</li> <li>· Consistency regionally with surrounding municipalities</li> <li>· Easiest method to track diversion</li> <li>· Easiest method to track participation</li> <li>· Good potential to meet waste strategy target of 70% diversion</li> <li>· No residual for the resident to manage</li> <li>· Collection and management all year round</li> <li>· Highest potential savings for landfill space</li> </ul>	<ul style="list-style-type: none"> <li>· Relatively more expensive than backyard composting expensive collection method for supply of bins and contractor costs for curbside collection</li> <li>· Greater greenhouse gas emissions from collection and transportation</li> <li>· Need to determine method of SSO disposal</li> <li>· Approvals required for consolidation site</li> </ul>
2. Curbside collection City-wide	<ul style="list-style-type: none"> <li>· \$1.5 million (one time)-consolidation site</li> <li>· \$1.4 million (one time)-2 containers per household + delivery</li> <li>· \$3.2 million (annual)-collection/transfer/process</li> </ul> <p><b>Total \$6.1 million (\$3.2 million annually)</b></p>	<ul style="list-style-type: none"> <li>· Greatest chance to meet 70% total residential diversion target in Waste Strategy</li> </ul>	<ul style="list-style-type: none"> <li>· Not mandated by Province to expend and pay for this level of service</li> <li>· Highest expense</li> </ul>
3. Backyard composting in urban areas only	<ul style="list-style-type: none"> <li>· \$700,000 for composters</li> <li>· \$100,000 delivery</li> </ul> <p><b>Total \$800,000</b></p>	<ul style="list-style-type: none"> <li>· Least expensive diversion option over long term</li> <li>· Lowest greenhouse gas emissions</li> <li>· Does not require a processing option as residents process their own organics</li> <li>· MECP approvals not necessary</li> </ul>	<ul style="list-style-type: none"> <li>· Likely perceived as less desirable by residents</li> <li>· Steep learning curve for residents to properly manage and compost their own food waste</li> <li>· Increased concern from residents for animals intruding in the composters</li> <li>· Can be difficult to manage the residual</li> <li>· Unlikely to meet diversion targets</li> <li>· Can be difficult and labour intensive</li> <li>· Stricter bylaws and enforcement to ensure compliance</li> <li>· Difficult to collect diversion data</li> <li>· High difficulty to manage residual in the winter months</li> </ul>



4. Backyard composting City-wide	<ul style="list-style-type: none"> <li>· \$1.9 million for composters</li> <li>· \$300,000 delivery</li> </ul> <p><b>Total \$2.2 million</b></p>	<ul style="list-style-type: none"> <li>· Same as above</li> </ul>	<ul style="list-style-type: none"> <li>· Same as above</li> </ul>
5. Counter top composting in urban areas only	<ul style="list-style-type: none"> <li>· \$1.4 million for units</li> <li>· \$100,000 delivery</li> </ul> <p><b>Total \$1.5 million</b></p>	<ul style="list-style-type: none"> <li>· Less greenhouse gas emissions than curbside collection</li> </ul>	<ul style="list-style-type: none"> <li>· No long term research/data</li> <li>· Residual still needs to be managed after dehydration</li> <li>· Labour intensive to manage residual and mix</li> <li>· Residual could still end up in waste if can't be managed on property</li> <li>· Unit upkeep and hydro costs</li> <li>· Unlikely to meet diversion targets</li> <li>· Stricter bylaws and enforcement to ensure compliance</li> <li>· Unit management/parts/maintenance</li> <li>· Difficult to track diversion data</li> </ul>
6. Counter top composting City-wide	<ul style="list-style-type: none"> <li>· \$3.9 million for units</li> <li>· \$300,000 delivery</li> </ul> <p><b>Total \$4.2 million</b></p>	<ul style="list-style-type: none"> <li>· Same as above</li> </ul>	<ul style="list-style-type: none"> <li>· Same as above</li> </ul>
7. Drop off facilities at Somerville and Lindsay landfills to service the urban areas	<ul style="list-style-type: none"> <li>· \$25,000 for units (5 cu. m/unit)+delivery</li> <li>· \$40,000 installation/ approvals</li> <li>· \$300,000 transfer/process</li> </ul> <p><b>Total \$365,000</b></p>	<ul style="list-style-type: none"> <li>· Less expensive than curbside collection</li> <li>· Less greenhouse gas emissions than curbside collection</li> <li>· Potential option to allow rural residents to dispose of material</li> </ul>	<ul style="list-style-type: none"> <li>· More greenhouse gas emissions than backyard/counter top composting</li> <li>· Increased traffic to already busy landfill sites</li> <li>· Inconvenient for residents and less likely to participate due to having to collect and store material as well as transport it themselves</li> <li>· Special approvals from MECP may be required</li> <li>· Need to determine method of SSO disposal</li> </ul>
8. Drop off facilities at all open landfills to service City-wide	<ul style="list-style-type: none"> <li>· \$65,000 for units (5 cu.m/unit) + delivery</li> <li>· \$100,000 installation/approvals</li> <li>· \$700,000 transfer/process</li> </ul> <p><b>Total \$865,000</b></p>	<ul style="list-style-type: none"> <li>· Same as above</li> </ul>	<ul style="list-style-type: none"> <li>· Same as above</li> </ul>