

<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON NOVEMBER 17, 2020</b>
<b>FROM:</b>	<b>KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES &amp; CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>COMMUNITY ENGAGEMENT ON GREEN BIN PROGRAM DESIGN</b>

### **RECOMMENDATION**

That on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following actions be taken:

- a) This report **BE RECEIVED** for information; and
- b) Civic Administration **BE DIRECTED** to submit a report to Civic Works Committee on February 9, 2021 and include the results of public input, staff recommendations to move forward and the next steps.

### **PREVIOUS REPORTS PERTINENT TO THIS MATTER**

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

- Business Case 1 – 60% Waste Diversion Action Plan – 2020-2023 Multi-Year Budget (January 30, 2020 meeting of the Strategic Priorities & Policy Committee (SPPC), Item #4.12a)
- 60% Waste Diversion Action Plan – Updated Community Feedback (September 25, 2018 meeting of the Civic Works Committee (CWC), Item #3.2)
- Public Participation Meeting 60% Waste Diversion Action Plan – Additional Information (September 25, 2018 meeting of the CWC, Item #3.2)
- 60% Waste Diversion Action Plan (July 17, 2018 meeting of the CWC Item #3.1)

### **COUNCIL'S 2019-2023 STRATEGIC PLAN**

Municipal Council has recognized the importance of solid waste management in its 2019-2023 Strategic Plan for the City of London as follows:

#### **Building a Sustainable City**

London has a strong and healthy environment (Increase waste reduction, diversion and resource recovery)

#### **Growing our Economy**

London is a leader in Ontario for attracting new jobs and investments (Increase partnerships that promote collaboration, innovation and investment)

#### **Leading in Public Service**

Londoners experience exceptional and valued customer service (Increase community and resident satisfaction of their service experience with the City)

## BACKGROUND

### PURPOSE

The purpose of this report is to provide Committee and Council with an approach to engage the community in designing the Green Bin program with respect to items that will drive citizen's ability and desire to participate in the new program.

### CONTEXT

The overall design of a Green Bin program includes five main areas that impact one another:

1. Decisions and details about:
  - i. what materials should be placed inside the Green Bin?
  - ii. what type of indoor container should be used?
  - iii. what type of bin liner should be permitted?
  - iv. what type of container at the curb should be used?
  - v. what concerns could there be with bi-weekly garbage pickup?
2. Selection of Green Bin indoor and curbside container manufacturer(s), including steps to award this work
3. Selection of a Green Bin material processor(s), including steps to award this work
4. Selection of collection vehicle manufacturer(s), and steps to award this work
5. Preparation of communications materials, awareness campaigns, other outreach opportunities including feedback from Londoners

This report addresses the first item above.

## DISCUSSION

### Community Engagement Process

The engagement process will be launched in late November and end on January 15, 2021 (about 8 weeks). The City's community engagement platform – Get Involved – will be used for information and soliciting input and feedback.

#### Use of Get Involved Engagement Page

An individual webpage for the project will be created and allow Londoners easy access to background information on Green Bin programs and how they operate. Photographs and other graphics will be shared on the webpage to illustrate the choices that Londoners can comment on. The Get Involved webpage will also include opportunities for Londoners to complete feedback surveys and ask questions.

#### Outreach Approach

To make Londoners aware of this engagement opportunity, a communications campaign will include:

- Newspaper ads
- Radio ads
- City website information including Our City e-News
- Social media
- Digital billboards

## Primary Areas for Engagement

The five primary areas for community engagement are listed below in the table. Contained in Appendix A, are details on each of the primary areas based on:

- Experience in Ontario municipalities with Green Bin programs;
- Experience from the Green Bin Pilot Project that operated in London between October 2011 and November 2012;
- Insight and documentation from AET Consultants (specifically Dr. Paul van der Werf, a food and organic waste management expert); and
- City staff experience and discussions with communities in Ontario and across Canada.

<b>Primary Area for Engagement</b>	<b>Items to be Considered</b>
i. What materials should be placed inside the Green Bin?	<ul style="list-style-type: none"> <li>• Food waste</li> <li>• Soiled paper</li> <li>• Cooking oils and grease</li> <li>• Household plants</li> <li>• Pet waste</li> <li>• Diapers, sanitary products</li> <li>• Yard waste</li> </ul>
ii. What type of bin liner should be permitted?	<ul style="list-style-type: none"> <li>• Paper (paper bags, paper towels, newspaper)</li> <li>• Compostable plastics</li> <li>• Plastic (plastic bags)</li> </ul>
iii. What type of indoor container should be used?	<ul style="list-style-type: none"> <li>• Various sizes designed to fit under the sink or on the kitchen counter</li> </ul>
iv. What type of container at the curb should be used?	<ul style="list-style-type: none"> <li>• Small (40 to 50 litre)</li> <li>• Medium (60 to 80 litre)</li> </ul>
v. What concerns could there be with bi-weekly garbage pickup?	<ul style="list-style-type: none"> <li>• Holding diapers for two weeks?</li> <li>• Amount of garbage over two weeks and where to store it?</li> <li>• Garbage placed at the curb on wrong week?</li> </ul>

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## **Appendix A**

### **Background Details to Support Community Engagement on Green Bin Decisions**

Information in this Appendix is provided in the following primary areas for the purpose of the community engagement process:

- i. What materials should be placed inside the Green Bin?
- ii. What type of indoor container should be used?
- iii. What type of bin liner should be permitted?
- iv. What type of container at the curb should be used?
- v. What concerns could there be with bi-weekly garbage pickup?

The background details contain a combination of currently available information, new research and insight based on:

- Experience in Ontario municipalities with Green Bin programs;
- Experience from the Green Bin Pilot Project that operated in London between October 2011 and November 2012;
- Insight and documentation from AET Consultants (specifically Dr. Paul van der Werf, a food and organic waste management expert); and
- City staff experience and discussions with communities in Ontario and across Canada.

#### **i) What materials should be placed inside the Green Bin?**

A decision about the type of material permitted in the Green Bin is perhaps the most critical decision because it will impact other significant operational decisions. Food waste and non-recyclable and soiled paper are the most common materials collected. Key decisions are required on items such as pet waste, diapers/incontinence products and other materials such as yard waste.

Factors to be considered and will be important from a public feedback perspective are:

- The impact of a food waste avoidance program focused on the edible portion of food (about 2/3rds by weight of all food waste) and how it can reduce the amount and cost of managing food waste.
- The impact of expanded home and community based composting initiatives.
- Approximately 50% of homes have pet waste in London. Pet waste is approximately 50% dog waste (feces) and 50% cat litter and waste (feces). Including pet waste will increase processing costs and make the Green Bin materials more difficult to process. It will also increase diversion through the Green Bin by between 10% and 20%.
- Approximately 10% of homes in London have diapers/incontinence products.
- Including pet waste and diapers/incontinence products could increase processing costs by between 20% and 40%. Diversion through the Green Bin could increase by between 15% and 25%. It is important to note that the diaper/incontinence products are not really composted or digested; therefore they still end up in the landfill. Depending on the type of pre-processing system used, many dog waste bags may not open and expose the contents for further processing.
- As noted, both products make the Green Bin materials more difficult to process. However, including these materials in the Green Bin will:
  - make it easier for the public to accept bi-weekly garbage collection;
  - provide minor landfill cost savings; and
  - further reduce greenhouse gas emissions.

- At least four processors in the Province (one composting facility and three anaerobic digesters) have available capacity to accept organics from London. All four can accept pet waste and diapers/incontinence products. Generally, composting facilities are better suited than anaerobic digesters to manage pet waste. Generally, anaerobic digesters are better suited than composting facilities to manage diapers/incontinence products.
- It is expected that new organic management facilities in the future are more likely to be anaerobic digesters and not composting facilities.
- London will also need to decide if a portion of yard waste will be accepted in the Green Bin.

A review of 15 Ontario Green Bin programs and three other Canadian programs found that all municipalities have a material mix that includes food, soiled paper, cooking oils and grease and household plants. In addition to this, approximately one-half of municipalities allow pet waste. Only two municipalities allow diapers and incontinence products. Tables A1 and A2 provide more details on Green Bin materials collected in Ontario and some other Canadian municipalities.

**Table A1 - Summary of Materials included in Other Green Bin Programs**

Municipality	Food	Soiled paper	Cooking oils and grease	House -hold plants	Pet waste	Diapers, incontinence products	Yard waste
City of Toronto	x	x	x	x	x	x	
Region of York	x	x	x	x	x	x	
City of Guelph	x	x	x	x	x		
Region of Niagara	x	x	x	x	x		
City of Ottawa	x	x	x	x	x		x
Simcoe County	x	x	x	x	x		
City of St Thomas	x	x	x	x	x		x
Region of Waterloo	x	x	x	x	x		
City of Barrie	x	x	x	x			
Dufferin County	x	x	x	x			
Region of Durham	x	x	x	x			
City of Hamilton	x	x	x				
Region of Halton	x	x	x	x			
City of Kingston	x	x	x	x			x
Region of Peel	x	x	x	x			
Other Canadian							
City of Vancouver	x	x	x	x			x
City of Calgary	x	x	x	x	x		x
City of Halifax	x	x	x	x			x

**Table A2 Green Bin Factors and Outcomes**

	Percentage of Single Family Households in Municipality	Number of Material Categories Collected	Kg/year all Households	Kg/year Single Family Households <sup>1</sup>	Percentage Diversion of Total Residential Waste
City of Toronto	41%	6	140	340	20%
Region of York	69%	6	260	310	26%
City of Guelph	54%	5	180	340	18%
Region of Niagara	84%	5	60	70	6%
City of Ottawa	70%	6	190	260	22%
Simcoe County	96%	5	85	90	9%
City of St Thomas	79%	6	240	300	23%
Region of Waterloo	69%	5	120	170	13%
City of Barrie	82%	4	90	110	8%
Dufferin County	94%	4	130	140	15%
Region of Durham	89%	4	120	140	11%
City of Hamilton	78%	3	60	80	6%
Region of Halton	80%	4	130	160	14%
City of Kingston	84%	5	70	80	9%
Region of Peel	77%	4	140	180	12%

Many of Ontario Green Bin programs are mature and have been in place for a number of years. Municipal staff from these municipalities were asked about any changes they have made in their mix of materials since the beginning of the program. These results are presented in Table A3 and provide some insightful information from the perspective of municipalities about which materials have become problematic for their programs.

Similarly staff were asked for their comments on materials that have become problematic and should not be added to the Green Bin program. These comments are summarized in Table A4.

**Table A3 - Changes, if Any, to Green Bin Material Mixes Since Program Inception**

Municipality	Material Mix
City of Toronto	No change
Region of York	No change
City of Guelph	No change

**Table A3 - Changes, if Any, to Green Bin Material Mixes Since Program Inception**

Municipality	Material Mix
Region of Niagara	Removed disposable paper cups
City of Ottawa	No change
Simcoe County	Added pet waste and kitty litter (2019)
City of St Thomas	No change
Region of Waterloo	Removed dirt/vacuum sweepings
City of Barrie	No change
Dufferin County	No change
Region of Durham	No change
City of Hamilton	Removed leaf and yard waste (2019)
Region of Halton	Removed disposable paper cups
City of Kingston	Added grease and cooking oils
Region of Peel	No change

**Table A4 - Municipal Comments on Materials to Avoid in Green Bin Program**

Municipality	Materials to avoid
City of Toronto	Compostable plastics as they are largely removed during pre-processing
City of Guelph	Compostable plastics
Niagara Region	Plastic bags, diapers
Simcoe County	Diapers and sanitary products
Waterloo Region	Dirt/vacuum sweepings, dryer lint, microwave popcorn bags due to potential chemical/plastic contamination
City of Hamilton	Glass, sharps, plastics, feminine products, diapers
Halton Region	For in-vessel composting pet waste and kitty litter should be avoided
Peel Region	Diapers, pet waste, and plastic (if processing in aerobic composting systems)

## ii) What type of indoor container should be used?

Residents will be supplied with a small container to collect food waste (kitchen organics). This is typically referred to as the ‘kitchen catcher’ of about 5 to 7 litre size, and would be stored in the kitchen (e.g., under the sink, in a cupboard, or on the counter) to make collection of organics more convenient. Depending on how much food waste is generated in a household, the kitchen catcher will be emptied into the Green Bin daily or 2 to 3 times per week. Kitchen catchers have a snap lid and may have a charcoal filters to trap and reduce odors.

Staff will further review and narrow down the options and seek feedback from Londoners on their preferred options. Green Bin manufacturers generally also manufacture kitchen catchers. Purchasing both containers from the same manufacturer may be a preferred option based on cost.

### iii) What type of bin liner should be permitted?

Typically a liner of some type is used to line the kitchen container and/or Green Bin. The type of liner permitted differs from municipality to municipality, and the type permitted could impact householder experience and cost. Liner types include paper liners (e.g., newsprint, bags), certified compostable plastic liners and non-degradable plastic liners (e.g., plastic grocery bags). In some cases, municipalities allow this for resident convenience and in some cases, they require them due to perceived/potential hygiene issues related to Green Bin collection.

Liner material permitted is contingent on materials permitted in the Green Bin; for example, municipalities that accept/reject diapers also accept/reject plastic bag liners. Table A5 provides details on Green Bin liners used in Ontario and some other Canadian municipalities.

**Table A5 - Summary of Acceptable Green Bin Liners**

Municipality	Paper	Certified Compost -able	Non-degradab le plastic	Are liners mandatory?	Kg/year Single Family Households <sup>1</sup>
City of Toronto	x		x	no	340
Region of York	x	x	x	no	310
City of Guelph	x	x		no	340
Region of Niagara	x	x		no	70
City of Ottawa	x	x	x	no	260
Simcoe County	x	x	during Covid-19 <sup>2</sup>	no	90
City of St Thomas	x	x		no	300
Region of Waterloo	x	x	during Covid-19 <sup>2</sup>	no	170
City of Barrie	x	x		no	110
Dufferin County	x	x		no	140
Region of Durham	x	x		yes/no <sup>3</sup>	140
City of Hamilton	x	x		no	80
Region of Halton	x	x		Yes <sup>4</sup>	160
City of Kingston	x	x		no	80
Region of Peel	x	x		no	180
City of Vancouver	x			no	-
City of Calgary	x	x		partially	-
City of Halifax	x			no	-

Notes:

<sup>1</sup> Kilograms from Green Bin program as per Table A2

<sup>2</sup> Green Bin materials must be bagged during Covid-19

<sup>3</sup> Variations exist in Region of Durham as lower tier municipalities have the majority of responsibility for collection. Some municipalities make liners mandatory

<sup>5</sup> This was enacted during Covid-19 but the plan is to make this permanent

#### iv) What type of container at the curb should be used?

The curbside container is used to store Green Bin materials and will be set out to the curbside on collection day. The Green Bin is normally stored in a garage or outside, similar to how Blue Boxes and garbage bins are stored.

Through preliminary research and initial public feedback, staff have narrowed the curbside container choice to two options: a small (about 40 to 50 litre) and a medium size (about 60 to 80 litre) size. These carts are common in other Ontario municipalities. The City of Ottawa has both sizes available to residents.

Larger cart sizes (80 to 120 litre) are used in some municipalities but is not being considered for London at this time. The larger cart would require a semi or fully automated lift mechanism style truck, which would increase collection costs. The larger cart size is also more likely to be used by residents for yard waste which will increase Green Bin processing costs.

Table A6 provides details on Green Bin curbside carts used in Ontario and some other Canadian municipalities.

**Table A6 - Green Bin Carts Sizes**

Municipality	Green Bin Carts Sizes in Use (litres)	Number of Material Categories Collected	Kg/year Single Family Households <sup>1</sup>	Percentage Diversion of Total Residential Waste
City of Toronto	97 <sup>2</sup>	6	340	20%
Region of York	46	6	310	26%
City of Guelph	80	5	340	18%
Region of Niagara	46	5	70	6%
City of Ottawa	46, 80	6	260	22%
Simcoe County	46	5	90	9%
City of St Thomas	240	6	300	23%
Region of Waterloo	46	5	170	13%
City of Barrie	46	4	110	8%
Dufferin County	46	4	140	15%
Region of Durham	46	4	130	11%
City of Hamilton	46, 120	3	80	6%
Region of Halton	46	4	160	14%
City of Kingston	80	5	80	9%
Region of Peel	100	4	180	12%

Notes:

<sup>1</sup> Kilograms from Green Bin program as per Table A2

<sup>2</sup> City of Toronto changed from 46 litre size when automatic/semi-automated was implemented. Smaller bin is still used in area where automatic collection is not possible due to space restrictions.



City of Ottawa

## v) What concerns could there be with bi-weekly garbage pickup?

During the development of the 60% Waste Diversion Action Plan, it was identified that a switch to bi-weekly, same day garbage collection and weekly recycling and Green Bin collection (same day) would be less costly than weekly garbage pickup. Bi-weekly garbage pickup was also viewed as key to higher use of the Green Bin. Through the engagement process City staff will endeavor to understand the concerns and challenges of a reduced garbage collection schedule for London households.

Municipalities with Green Bin programs have found that the amount of organic material collected increases by 50% to 100% with the introduction of bi-weekly garbage collection. Collection of Blue Box recyclables also increases with the introduction of bi-weekly garbage collection. Twelve of the 15 largest Ontario municipalities with a Green Bin program have bi-weekly garbage collection (Table A7), and two of the other programs are reviewing the option or in transition to go to bi-weekly collection.

<b>Table A7 - Garbage Collection Frequency for Large Municipalities with Green Bin Collection</b>	
<b>Garbage Collection Frequency</b>	<b>Municipality</b>
Weekly	Dufferin County, Hamilton <sup>1</sup> , Kingston
Weekly	St. Thomas <sup>2</sup>
Bi-weekly	Barrie, Durham, Guelph, Halton, Niagara <sup>3</sup> , Ottawa, Peel, Simcoe County <sup>4</sup> , Toronto, Waterloo, York Other Canadian: Calgary, Halifax, Vancouver

Notes:

<sup>1</sup> Reviewing bi-weekly garbage collection

<sup>2</sup> Weekly garbage, bi-weekly green bin and recycling

<sup>3</sup> Changed to bi-weekly garbage collection in October 2020

<sup>4</sup> Changed to bi-weekly garbage collection in February 2020

Bi-weekly collection of garbage is understandably a challenge for households that use diapers, incontinence and sanitary products. Some municipalities have introduced programs to assist households to manage these materials over the bi-weekly collection cycle. These programs are summarized in Table A8.

## Table A8 - Special programs to deal with diapers/sanitary products

<b>Municipality</b>	<b>Special Programs to Deal with Diapers/Sanitary Products</b>
Niagara Region	A diaper exemption program where eligible residents can apply for an exemption to their bi-weekly waste collection.
City of Ottawa	A sign-up program for the collection of diapers and incontinence products, on weeks when garbage is not collected.
Waterloo Region	Free diaper drop-off at depots (see-through plastic bags are mandatory), and a Medical Exemptions program.
City of Barrie	From May 1 – October 31, residents can dispose of a maximum of 2 clear bags of diapers (only) per week at the landfill at no charge.
Halton Region	A diaper bag tag program where households may receive diaper bag tags that allow them to exceed the three-bag limit without having to purchase a \$2 bag tag. The diaper bag tag also allows households to drop-off their diaper waste free of charge at the Halton landfill.
Peel Region	Initially allowed residents that wanted an option to dispose diapers on a weekly basis to register for an exemption that would allow them to bring diapers to drop off depots but uptake was very low.