



Waste Management Community Liaison Committee Agenda

Meeting #5 Monday February 26, 2018
 5:30 pm – Food, mingle/network time
 6:00 pm – Meeting
 7:30 pm - Adjournment

Location: London City Hall, 2nd Floor, Committee Room #2

Previous Meeting November 20, 2017

Item #	Item	Approx. Amount of Time (min.)	Attach.
1	CALL TO ORDER	5	
a	Review of Agenda	2	
b	Items that Must be Added to this Agenda	2	
c	Approval of notes from November 20, 2017 meeting (Attachment A)	1	Yes
2	ITEMS FOR THIS AGENDA	15	
	<ul style="list-style-type: none"> Community Engagement Update including results of Open House 2 (Attachment B) Results of Home Show (Attachment C) 	15	Yes
3	STANDING ITEMS	20	
a	Update Resource Recovery Strategy (Between November 20, 2017 and February 23, 2018) <ul style="list-style-type: none"> Verbal update including timeline to present 60% Diversion Plan to CWC in June 2018 Feedback welcome on-line until March 31, 2018 https://getinvolved.london.ca/WhyWasteResource 	8	
b	Next Steps – Resource Recovery Strategy <ul style="list-style-type: none"> Prepare 60% Diversion Plan 	2	

c	Update – Residual Waste Disposal Strategy – EA for a Proposed Landfill Expansion (Between November 20, 2017 and February 23, 2018) <ul style="list-style-type: none"> Verbal update including update of the EA schedule, Preliminary Proposed Draft ToR 	8	
d	Next Steps – Residual Waste Disposal Strategy – EA for a Proposed Landfill Expansion <ul style="list-style-type: none"> Release Request for Information – Resource Recovery Technologies 	2	
4	CLC DISCUSSION	45	
a	<ul style="list-style-type: none"> Discussion about 60% Diversion Plan and the individual components that will make up the plan (i.e., encourage any remaining CLC members to go on-line and submit their answers/comments. Also, consider creating a collective CLC response that considers all questions and is based on the average score of the CLC). (Attachment D) 	25	Yes
b	<ul style="list-style-type: none"> Discuss 2018 plan for the CLC group Meeting dates for 2018 Fill vacancies in membership 	20	
5	ADDITIONAL BUSINESS	5	
a	Key items for next meeting <ul style="list-style-type: none"> Status of Proposed Draft ToR 	3	
b	Date of next meeting: TBD 5:30 pm Food, mingle/network time 6:00 pm Meeting	2	

60% Diversion Plan Feedback Results of CLC Members

#1 Getting to 60% by 2022		Count	Percentage
\$0 per household per year		0	0%
\$1 to \$25 per household per year		3	50%
\$26 to \$50 per household per year		3	50%
\$51 to \$75 per household per year		0	0%
\$76 to \$100 per household per year		0	0%
Total Votes		6	

#2 Food Waste Avoidance		Count	Percentage
No Change	\$0, 0% Diverted	0	0%
Moderate Program	\$1 per household, 0.12% Diverted	5	83%
Significant Program	\$7 per household, 1.3% Diverted	1	17%
Total Votes		6	

#3 Home Composting		Count	Percentage
No Change	\$0, 0% Diverted	2	33%
Moderate Program	\$0.75 per household, 0.2% Diverted	3	50%
Significant Program	\$1.20 per household, 0.7% Diverted	1	17%
Total Votes		6	

#4 Community Composting		Count	Percentage
No Change	\$0, 0% Diverted	3	50%
Low Tech, Private	\$0.01 per household, 0.01% Diverted	2	33%
Low Tech, Public	\$0.15 per household, 0.01% Diverted	1	17%
High Tech, Public	\$0.45 per household, 0.1% Diverted	0	0%
Total Votes		6	

#5 City Wide Organics - Curbside Program		Count	Percentage
No Change	\$0, 0% Diverted	0	0%
Green Bin Program	\$20 per household, 9% Diverted	6	100%
Mixed Waste Program	\$40 per household, 14% Diverted	0	0%
Total Votes		6	

60% Diversion Plan Feedback Results of CLC Members

#6 City Wide Organics - Multi-Residential Program		Count	Percentage
No Change	\$0, 0% Diverted	1	17%
Green Bin Program	\$7 per household, 1.5% Diverted	5	83%
Mixed Waste Program	\$14 per household, 5% Diverted	0	0%
Total Votes		6	

#7 A&B Other Recyclables		Count	Percentage
No Change	\$0, 0% Diverted	0	0%
Carpet	\$0.30 to \$0.80 per household, 0.1% Diverted	6	100%
Mattresses and Box Springs	\$3 to \$6 per household, 0.3% to 0.6% Diverted	6	100%
Wood Furniture	\$0.05 to \$0.50 per household, 0.1% Diverted	6	100%
Electrical Equipment	\$0.10 to \$0.60 per household, 0.1% to 0.2% Diverted	6	100%
Textiles	\$0.0 to \$0.60 per household, 0.2% to 0.5% Diverted	6	100%
Bulky Plastics	\$0.01 to \$0.40 per household, <0.1% Diverted	0	0%
Total Voters*		6	

* all voters preferred "significant" resources to be invested

#8 Other Waste Reduction Initiatives		Count	Percentage
Lending Libraries	\$0.25 to \$0.50 per household	5	83%
Repair Workshops	\$0.25 to \$0.50 per household	5	83%
Promote Reuse Events	\$0.25 to \$0.50 per household	5	83%
Waste Reduction Education/Outreach	\$0.55 to \$1.10 per household	6	100%
Total Voters**		6	

** 17% of voters preferred "significant" resources to be invested, 66% of voters preferred "moderate" resources to be invested, 17% of voters preferred "low" resources to be invested

#9 Waste Reductions Policies and By-Laws		Count	Percentage
Expand and enforce material bans		5	83%
Clear bags for garbage		2	33%
Reduce garbage container limits		4	67%
User pay (pay per bag or container)		3	50%
Performance - based incentives		2	33%
Total Votes		6	

TO:	CHAIR AND MEMBERS WASTE MANAGEMENT WORKING GROUP MEETING ON JANUARY 18, 2018
FROM:	JAY STANFORD, M.A., M.P.A. DIRECTOR - ENVIRONMENT, FLEET & SOLID WASTE
SUBJECT:	PROGRESS REPORT #4: COMMUNITY ENGAGEMENT PROGRAM UPDATE SEPTEMBER 13, 2017 TO JANUARY 10, 2018

RECOMMENDATION

That, on the recommendation of the Director - Environment, Fleet and Solid Waste, this report **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

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

- Update and Next Steps – Resource Recovery Strategy and Residual Waste Disposal Strategy as part of the Environmental Assessment Process (February 7, 2017 meeting of the Civic Works Committee (CWC), Item #10)
- Individual Environmental Assessment Long Term Solid Waste Resource Recovery & Disposal Plans (October 6, 2015 meeting of the CWC, Item #14)

Relevant reports that can be found at www.london.ca under City Hall (Meetings – Advisory and other Committees) include:

- Update Report #4: Community Engagement Program (September 28, 2017 meeting of the Waste Management Working Group (WMWG), Item #6)
- Progress Report #1: Community Engagement Program (June 27, 2017 meeting of the WMWG, Item #6)
- General Framework for the Community Engagement Program for the Resource Recovery and Residual Waste Disposal Strategies as part of the Environmental Assessment Process (January 19, 2017 meeting of the WMWG, Item #7)

COUNCIL’S 2015-2019 STRATEGIC PLAN

Municipal Council has recognized the importance of solid waste management in its 2015-2019 - Strategic Plan for the City of London ([2015 – 2019 Strategic Plan](#)) as follows:

Building a Sustainable City

- Strong and healthy environment
- Robust infrastructure

Growing our Economy

- Local, regional, and global innovation
- Strategic, collaborative partnerships

Leading in Public Service

- Proactive financial management
- Innovative & supportive organizational practices
- Collaborative, engaged leadership
- Excellent service delivery

BACKGROUND

PURPOSE:

This report provides the Waste Management Working Group (WMWG) with an update on Community Engagement Program activities for the Resource Recovery and Residual

Waste Disposal Strategies that have taken place between September 13, 2017 and January 8, 2018.

CONTEXT:

In February 2017 Municipal Council directed City staff to undertake a number of actions with respect to the development of a long term Resource Recovery Strategy and a Residual Waste Disposal Strategy for the City of London. These actions included approving the general framework of the Community Engagement Program including:

- Using the following community engagement tools and forums: public notices, project website including use of the *getinvolved.london.ca* website, interested stakeholders contact and distribution list, open houses, meetings/presentations, City of London Advisory Committees, and using a range of information and communications tools; and,
- Contacting individuals and groups within the following broad stakeholder categories: the general public, the Government Review Team and Indigenous Communities.

The Community Engagement Program began on March 30, 2017 with the release of the Notice of Commencement.

The WMWG received its first update summary of community engagement activities on June 27, 2017 for the period March 30, 2017 to June 5, 2017 and its second update on September 28, 2017 for the period June 6, 2017 to September 12, 2017.

DISCUSSION

Overview

A formal Public Consultation Report (i.e., the title assigned by the Ministry of Environment and Climate Change - MOECC) for the Residual Waste Disposal Strategy will be required as part of the EA process. This report will document all aspects of the Community Engagement Program including information on advertising, outreach, events and activities as well as comments received. A similar report will be prepared for the Resource Recovery Strategy by City staff. Below is a brief summary of the recent Community Engagement Program activities. Complete details will ultimately be provided in the previously noted reports.

Summary of Community Engagement Activities

Table 1 provides an update summary of the community engagement activities that took place from September 13, 2017 to January 10, 2018.

Table 1 – Community Engagement Activities September 13, 2017 to January 10, 2018

Activity	Description
Project Website (<i>Getinvolved.London.ca</i>)	<i>Residual Waste Disposal Strategy</i> <ul style="list-style-type: none">• Over 700 visits (total exceeds 1,900 visits since start of engagement program) with over 500 unique visitors (total exceeds 1,300 unique visitors since start of engagement program). <i>Resource Recovery Strategy</i> <ul style="list-style-type: none">• Over 2,000 visits (total exceeds 2,600 visits since start of engagement program) with over 1,400 unique visitors (total exceeds 1,900 unique visitors since start of engagement program).

Table 1 – Community Engagement Activities September 13, 2017 to January 10, 2018

Activity	Description
Second Series of Open Houses (November 29 & 30)	<ul style="list-style-type: none">• Advertised in Londoner, London Free Press, social media, community boards at City facilities.• Notices sent to stakeholders (Nearby residents, government review team, Indigenous Communities, various stakeholder groups, etc.).• 72 visitors.• Many people stayed for over 30 minutes and some over an hour.• 34 completed feedback forms, numerous verbal comments.
Virtual Open House (Project Website)	<ul style="list-style-type: none">• The materials presented at the November 29 and 30 open houses are currently being presented along with the opportunity to provide feedback. The portion of the Virtual Open House related to the Residual Waste Disposal Strategy closes on January 15, 2018. The portion of the Virtual Open House related to the Resource Recovery Strategy will stay open until March 31, 2018.• 12 responses have been received to-date.
Indigenous Communities	<ul style="list-style-type: none">• Information provided to nine Indigenous Communities about the status of the project, the November Open Houses and the next steps.
Community Liaison Committee (CLC)	<ul style="list-style-type: none">• Second meeting on September 13; tour of W12A Landfill and the MRF. General discussion about the Guiding Principles and 4 Key Project Parameters.• Third meeting on November 20; meeting covered provincial updates regarding organics and Waste Free Ontario Act and previewing the information to be presented at the Open Houses.
Other	<ul style="list-style-type: none">• Presentations to Advisory Committee of the Environment on November 1, 2017, December 10, 2017 and January 10, 2018.• Presentation to the Agricultural Advisory Committee on September 20, 2017. Next presentation is scheduled for January 17, 2018.• Presentation to Environmental and Ecological Planning Advisory Committee (EEPAC) Scheduled for January 18, 2018.• Updates provided to the W12A Landfill Public Advisory Committee on October 18 and December 7, 2017.• Social media (Facebook, Twitter).• Personal meetings as requested.• CTV coverage on December 1, 2017 (Open House) and January 4, 2018 (changes to organics).

Summary of Comments Received at the Open Houses

Residual Waste Disposal Strategy

With respect to the proposed landfill expansion, concerns were expressed about:

- Need to update Community Enhancement and Mitigative Measures Program as soon as possible; and,
- Need to limit/restrict the number of neighbouring municipalities using the W12A Landfill; Need to limit how long they can use the W12A Landfill .

Concerns/comments heard at the first series of Open Houses and repeated at the second series of Open Housed included:

- The potential for more odours and which alternative design concept was likely to cause the least odours;
- Fairness, why isn't it someone else's turn for the landfill site?
- The height of the landfill and what that would look like; and
- How property values in the area would be impacted.

Resource Recovery Strategy

With respect to the resource recovery strategy, concerns/comments included:

- Added details about the recycling and composting options were appreciated and noted in some discussions;
- Impact concerns of large recycling and composting plants if located at W12A Landfill; and
- Does mixed waste processing/composting work and where is it done?

Concerns/comments heard at the first series of Open Houses and repeated at the second series of Open Housed included:

- Support for a Green Bin program;
- Need to include additional products like foam plastic and grocery bags in the recycling program; support for banning more items curbside;
- Some were very interested in newer and emerging technologies and what role they might play in London. These included biogas facilities, gasification facilities and pyrolysis facilities; and
- The City is moving too slow. It needs to catch up to other municipalities.

ACKNOWLEDGEMENTS

This report was prepared with assistance from Mike Losee, Division Manager, Solid Waste Management and Jane Kittmer, Solid Waste Planning Coordinator.

PREPARED BY:	
WESLEY ABBOTT, P. ENG. PROJECT MANAGER SOLID WASTE MANAGEMENT	
PREPARED AND RECOMMENDED BY:	CONCURRED BY:
JAY STANFORD, M.A., M.P.A. DIRECTOR, ENVIRONMENT, FLEET & SOLID WASTE	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER

Results of Feedback from Home Show 2018

Combined Numbers and Totals

	Count	Percentage # of Copies
#1 Getting to 60% by 2022		
\$0 per household per year	108	19%
\$1 to \$25 per household per year	269	46%
\$26 to \$50 per household per year	130	22%
\$51 to \$75 per household per year	38	7%
\$76 to \$100 per household per year	34	6%
Total Votes	579	
# of Copies	579	

	Count	Percentage # of Copies
#2 Food Waste Avoidance		
No Change \$0, 0% Diverted	97	17%
Moderate Program \$1 per household, 0.12% Diverted	274	47%
Significant Program \$7 per household, 1.3% Diverted	210	36%
Total Votes	581	
# of Copies	581	

	Count	Percentage # of Copies
#3 Home Composting		
No Change \$0, 0% Diverted	144	25%
Moderate Program \$0.75 per household, 0.2% Diverted	238	41%
Significant Program \$1.20 per household, 0.7% Diverted	208	36%
Total Votes	590	
# of Copies	581	

	Count	Percentage # of Copies
#4 Community Composting		
No Change \$0, 0% Diverted	100	19%
Low Tech, Private \$0.01 per household, 0.01% Diverted	141	26%
Low Tech, Public \$0.15 per household, 0.01% Diverted	158	29%
High Tech, Public \$0.45 per household, 0.1% Diverted	137	26%
Total Votes	536	
# of Copies	536	

	Count	Percentage # of Copies
#5 City Wide Organics - Curbside Program		
No Change \$0, 0% Diverted	117	20%
Green Bin Program \$20 per household, 9% Diverted	371	62%
Mixed Waste Program \$40 per household, 14% Diverted	111	19%
Total Votes	599	
# of Copies	599	

		Count	Percentage # of Copies
#6 City Wide Organics - Multi-Residential Program			
No Change	\$0, 0% Diverted	100	18%
Green Bin Program	\$7 per household, 1.5% Diverted	344	61%
Mixed Waste Program	\$14 per household, 5% Diverted	118	21%
Total Votes		562	
# of Copies		562	

		Count	Percentage # of Copies
#7 A&B Other Recyclables			
No Change	\$0, 0% Diverted	154	22%
Carpet	\$0.30 per household, 0.1% Diverted	236	34%
Mattresses and Box Springs	\$3 to \$6 per household, 0.3% to 0.6% Diverted	303	43%
Wood Furniture	\$0.05 to \$0.50 per household, 0.1% Diverted	193	28%
Electrical Equipment	\$0.10 to \$0.60 per household, 0.1% to 0.2% Diverted	270	39%
Textiles	\$0.0 to \$0.60 per household, 0.2% to 0.5% Diverted	157	22%
Bulky Plastics	\$0.01 to \$0.40 per household, <0.1% Diverted	251	36%
Total Votes		1564	
# of Copies		698	

		Count	Percentage # of Copies
#8 Other Waste Reduction Initiatives			
Lending Libraries	\$0.25 to \$0.50 per household	200	36%
Repair Workshops	\$0.25 to \$0.50 per household	211	38%
Promote Reuse Events	\$0.25 to \$0.50 per household	250	45%
Waste Reduction Education/Outreach	\$0.55 to \$1.10 per household	180	33%
Total Votes		841	
# of Copies		552	

		Count	Percentage # of Copies
#9 Waste Reductions Policies and By-Laws			
Expand and enforce material bans		191	32%
Clear bags for garbage		111	19%
Reduce garbage container limits		135	23%
User pay (pay per bag or container)		104	18%
Preformance - based incentives		145	24%
Total Votes		686	
# of Copies		593	



Getting to 60% by 2022



The following boards focus on the specific strategies that will help get us to our waste diversion target of 60% by 2022. **Please complete the Feedback Booklet and tell us what you think about the different options.**



Organics Management

- Food waste reduction initiatives
- Home composting
- Community composting
- City wide organics program



Recyclables

- Carpet, mattresses and textiles
- Electronics, scrap metal and small metal appliances
- Wooden furniture
- Bulky plastics



Waste Reduction & Reuse Programs (examples)

- Waste Reduction Programs: lending libraries, repair workshops
- Community outreach programs: environment days
- Policies and by-laws: landfill bans, reduced garbage limit, pay per container, use of clear bags for garbage, mandatory separation programs

Food Waste Reduction Initiatives



Background:

On average each London household wastes about \$600 worth of food over the course of the year. This is food that could have been eaten but wasn't.

This is waste that could have been avoided. Below are moderate and significant initiatives that will focus on reducing food waste.



Tell us how much you want us to invest in this initiative? ¹	 Moderate (investment of resources)	 Significant (investment of resources)
	<ul style="list-style-type: none">Promotion and community outreach programs, and information to households.	<ul style="list-style-type: none">Same as Moderate plus provide each household with a food waste reduction tool kit to help them reduce food waste.
How will resources be invested?		
How much closer will it get us to the 60% goal?	0.12% 190 tonnes	1.3% 2,100 tonnes
Annual cost	\$180 K	\$1.2 M
Cost per household	\$1	\$7
Cost per tonne	\$950	\$570
Expected annual household savings	\$ 1 M	\$10 M
GHG ² avoided	600 tonnes	6,100 tonnes
GHG reduction for every tonne diverted	2.9 tonnes	
One tonne of GHG reduction is equivalent to removing 1 car off the road for 3 months.		

1. Approximate range of costs and tonnes are provided based on best available data.
 2. Greenhouse Gas

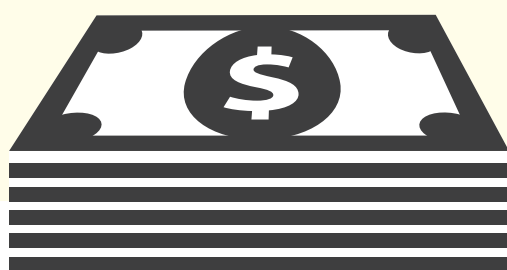
Home Composting



Background:

Home composting plays an important role in waste reduction in London. The City has sold close to 56,000 units that contribute to an estimated 5,600 tonnes of food and yard waste that is managed in backyards across London.



Tell us how much you want us to invest in this initiative? ¹	Existing (Home Composting Program)	 Moderate (investment of resources)	 Significant (investment of resources)
How will resources be invested?	<ul style="list-style-type: none">• Promoted seasonally, sell 'at cost' at EnviroDepots	<ul style="list-style-type: none">• Moderate additional promotion and 50% subsidy of composters	<ul style="list-style-type: none">• Significant additional promotion and outreach and 75% subsidy of composters
How much closer will it get us to the 60% goal?	3.5% (included in 45% current diversion rate)	0.2% 300 tonnes  0.7% 1,100 tonnes	
Annual cost	\$150 K (saved in avoided landfill/processing costs)	\$130 K  \$210 K	
Cost per household	No additional	\$0.75  \$1.20	
Cost per tonne	No additional	\$450  \$190	
GHG ² avoided		240 tonnes  900 tonnes	
GHG reduction for every tonne diverted	0.8 tonnes		
One tonne of GHG reduction is equivalent to removing 1 car off the road for 3 months.			

1. Approximate range of costs and tonnes are provided based on best available data.
2. Greenhouse Gas

Community Composting



Background:

Community composting options can range from setting up backyard composters for resident use at a multi-residential building to installing higher tech composter units for public use in parks and community spaces.



What type of program? ¹	 Low Tech (Private)	 Low Tech (Public)	 High Tech (Public)
How will resources be invested?	<ul style="list-style-type: none">Composting at apartment buildings where residents can compost kitchen waste using large backyard composters or three-compartment wooden composters.	<ul style="list-style-type: none">Community locations where citizens can compost their garden or kitchen waste using large backyard composters or three-compartment wooden composters.	<ul style="list-style-type: none">Community locations where citizens can compost their garden or kitchen waste using technologies such as small-scale digesters or mechanical composting units.
How much closer will it get us to the 60% goal?	<div>0.01% 20 tonnes</div> <div>↔</div> <div>0.01% 20 tonnes</div> <div>→</div> <div>0.1% 200 tonnes</div>		
Annual cost	<div>\$2 K</div> <div>→</div> <div>\$4 K</div> <div>→</div> <div>\$80 K</div>		
Cost per household	<div>\$0.01</div> <div>→</div> <div>\$0.02</div> <div>→</div> <div>\$0.45</div>		
Cost per tonne	<div>\$150</div> <div>→</div> <div>\$300</div> <div>→</div> <div>\$400</div>		
GHG ² avoided	<div>16 tonnes</div> <div>→</div> <div>16 tonnes</div> <div>→</div> <div>160 tonnes</div>		
GHG reduction for every tonne diverted	0.8 tonnes		
One tonne of GHG reduction is equivalent to removing 1 car off the road for 3 months.			

1. Approximate range of costs and tonnes are provided based on best available data.
 2. Greenhouse Gas

City Wide Organics – Curbside Program



Background:

A City wide organics collection program would provide the biggest boost to our waste diversion target of 60% by 2022. It is estimated that it would increase our diversion rate in the range of 9 to 14%.

A green bin is the most common type of program in Ontario for managing household organic waste and will be considered for London. Mixed Waste Processing is another option. Organics would continue to be collected with garbage, but instead of going to landfill the collected waste would be sorted to remove organics and recyclables, and anything left over would be landfilled.



What type of program? ¹	 Curbside Green Bin Program	 Mixed Waste Program
How will resources be invested?	<ul style="list-style-type: none">• Weekly collection of kitchen organics from approximately 120,000 curbside households.• Organic waste is separated by homeowners and placed out for a separate organics pickup.	<ul style="list-style-type: none">• Residents would continue to place organic waste in garbage.• Organic waste would be separated from garbage at a mixed waste processing facility to be composted or anaerobically digested
How much closer will it get us to the 60% goal?	9% 14,000 tonnes	 14% 22,000 tonnes
Annual cost	\$3.5 M	 \$7 M
Cost per household	\$20	 \$40
Cost per tonne diverted	\$250	 \$300
GHG ² avoided	11,000 tonnes	 18,000 tonnes
GHG reduction for every tonne diverted	0.8 tonnes	
One tonne of GHG reduction is equivalent to removing 1 car off the road for 3 months.		

1. Approximate range of costs and tonnes are provided based on best available data.
2. Greenhouse Gas



City Wide Organics - Multi-Residential Program



Background:

About 30% of London's households live in multi-residential (apartment/condo) buildings and generate approximately 22,000 tonnes of garbage per year. The garbage from multi-residential buildings is similar to the garbage from single family households. The main difference is a higher percentage of recyclables in the garbage and less of the garbage is compostable. Options for diversion of organic waste from the multi-residential sector are the same as for curbside households: separation of organics in the home for collection (e.g., green bin program) or collection of unsorted waste that is later sorted in a mixed waste processing facility.



waste processing facility.			
What type of program? ¹		Multi-residential Green Bin Program	Mixed Waste Program
How will resources be invested?		<ul style="list-style-type: none">• Weekly collection of kitchen organics from approximately 55,000 multi-residential units.• Organic waste is separated by homeowners and placed out for a separate organics pickup. Collection carts would be stored in a common common area similar to how recycling is stored.	<ul style="list-style-type: none">• Residents would continue to place organic waste in garbage.• Organic waste would be separated from garbage at a mixed waste processing facility to be composted or anaerobically digested.
How much closer will it get us to the 60% goal?		1.5% 2,500 tonnes	5% 8,000 tonnes
Annual cost		\$1.3 M	\$2.4 M
Cost per household		\$7	\$14
Cost per tonne diverted		\$500	\$300
GHG ² avoided		2,000 tonnes	6,400 tonnes
GHG reduction for every tonne diverted		0.8 tonnes	
One tonne of GHG reduction is equivalent to removing 1 car off the road for 3 months.			

1. Approximate range of costs and tonnes are provided based on best available data.
2. Greenhouse Gas

Other Recyclables

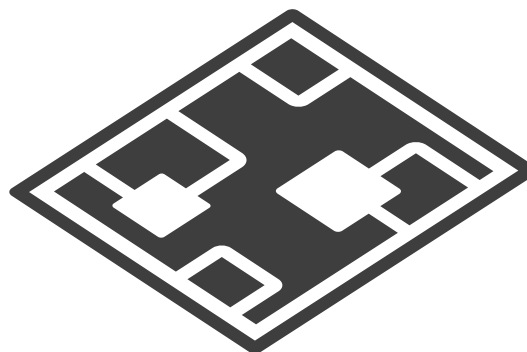
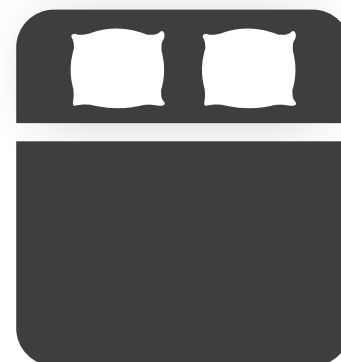
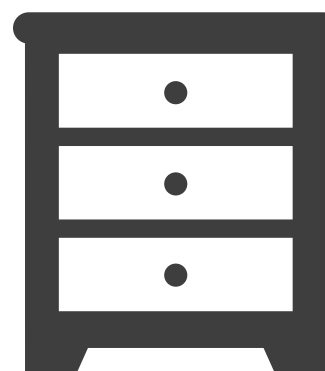


Background:

Mattresses, carpets and wooden furniture are currently collected as garbage in London. There is potential to recycle these materials. In fact, the Province has already identified mattresses and carpet as materials they wish to target for recycling in the future.



recycling in the future.

How will resources be invested? ¹				
	Moderate (Collection at an EnviroDepot)	Significant (Semi-annual collection + EnviroDepot program)		
	The data below reflect the two investment options.			
				
	Carpet	Mattresses & Box Springs	Wooden Furniture	
	Impact on Diversion	0.1% 160 tonnes	0.3% to 0.6% 500 to 1,000 tonnes	0.1% 160 tonnes
	Annual cost ²	\$50 K to \$140 K	\$0.5 M to \$1.1 M	\$9 K to \$90 K
Cost per household	\$0.30 to \$0.80	\$3 to \$6	\$0.05 to \$0.50	
Cost per tonne	\$350 to \$850	\$900 to \$1 K	\$50 to \$500	
GHG ³ avoided	400 tonnes	1,300 to 2,600 tonnes	600 tonnes	
GHG reduction for every tonne diverted	2.6 tonnes	2.6 tonnes	3.8 tonnes	
One tonne of GHG reduction is equivalent to removing 1 car off the road for 3 months				

1. Approximate range of costs and tonnes are provided based on best available data.
 2. Program costs may be covered in future under provincial program.
 3. Greenhouse Gas

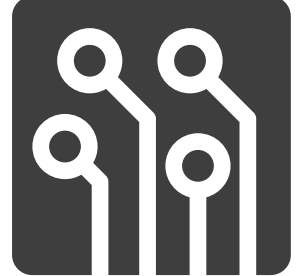
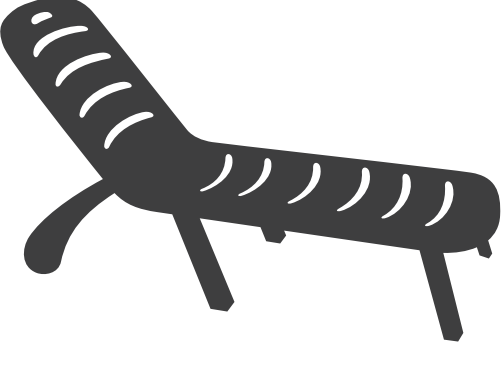
Other Recyclables



Background:

Electrical equipment & scrap metal, textiles and bulky plastic items are currently being recycled and reused in London. However, a significant quantity of these materials continue to be landfilled. There is potential to increase diversion of these materials.



How will resources be invested? ¹	 Moderate (Collection at an EnviroDepot)		 Significant (Semi-annual collection + EnviroDepot program)
	The data below reflect the two investment options.		
	 Electrical Equipment, Metal	 Textiles	 Bulky Plastics
Impact on Diversion	0.1% to 0.2% 160 to 320 tonnes	0.2% to 0.5% 320 to 800 tonnes	0.03% to 0.06% 50 to 100 tonnes
Annual cost ²	\$20 K to \$110 K	\$0 K to \$110 K	\$20 K to \$80 K
Cost per household	\$0.10 to \$0.60	\$0 to \$0.60	\$0.01 to \$0.40
Cost per tonne	\$125 to \$350	\$0 to \$150	\$400 to \$800
GHG ³ avoided	700 to 1,400 tonnes	3,000 to 8,000 tonnes	50 to 100 tonnes
GHG reduction for every tonne diverted	4.4 tonnes	10 tonnes	1 tonne
One tonne of GHG reduction is equivalent to removing 1 car off the road for 3 months			

1. Approximate range of costs and tonnes are provided based on best available data.
 2. Program costs may be covered in future under provincial program.
 3. Greenhouse Gas



Waste Reduction & Reuse Initiatives



Background:

These initiatives focus on raising awareness of options to reduce waste and engage citizens to make small changes to daily life.

The impact of any one initiative may not be significant, but together small changes contribute to cultivating a culture of waste reduction, and over time could make a significant difference to how we manage resources.

As some of those listed are already underway in our community through other organizations, we could explore options to build partnerships as well as establish new sharing programs where they are needed.

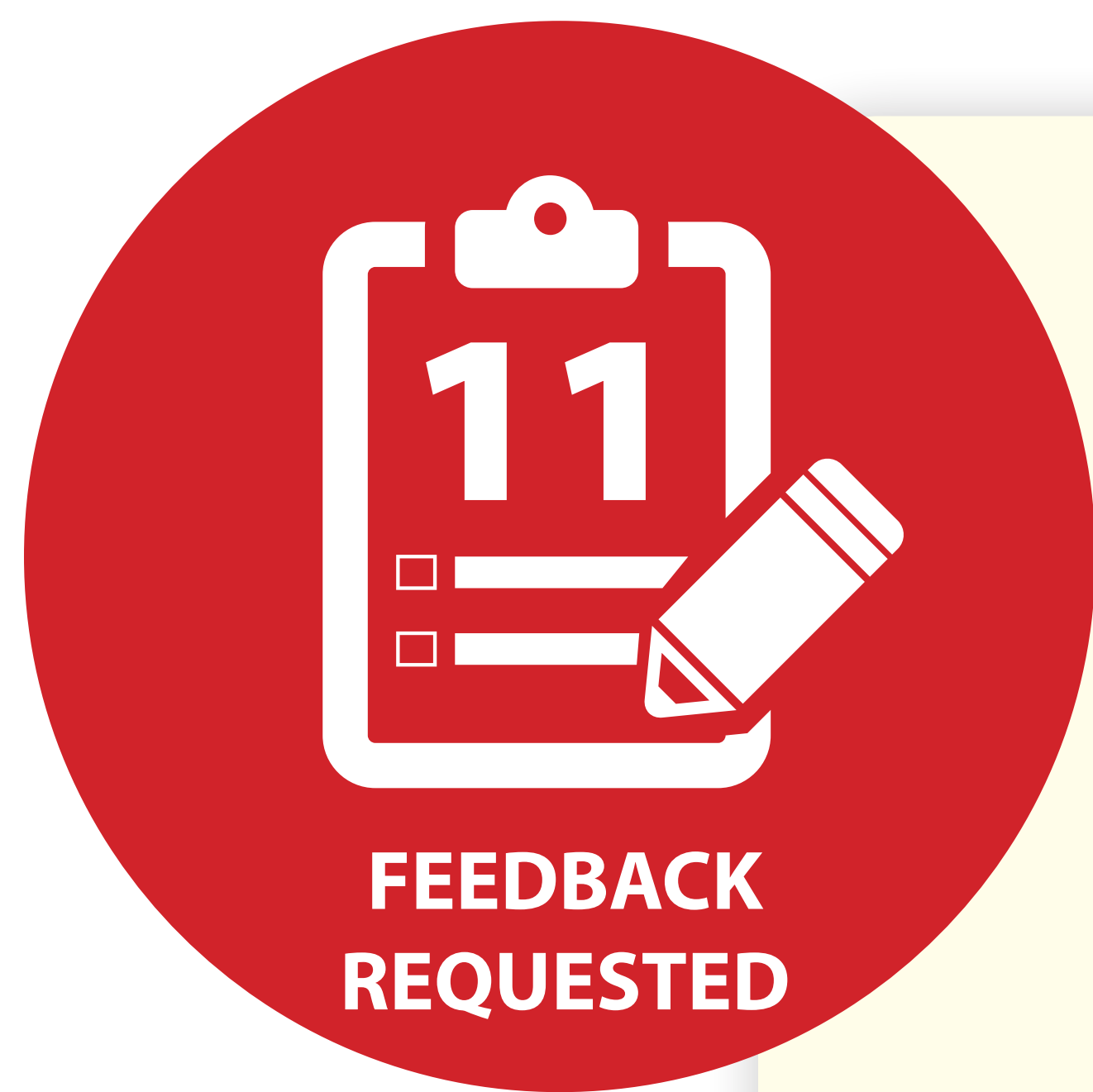
More research is required to understand the potential impact on diversion and GHG reduction.



How will resources be invested?		 Moderate Investment	 Significant Investment
Program Cost for Examples		Per household Net annual cost	
Lending libraries	<ul style="list-style-type: none">Lending of materials and equipment that are used infrequently means less product production and can save money for households. Tool sharing libraries, for example, are being developed in London.	\$0.25 \$45 K	\$0.50 \$90 K
Repair workshops	<ul style="list-style-type: none">There is potential to reduce waste through repair and reuse workshops. These workshops will train interested citizens on how to fix household items (e.g., bikes, furniture, etc.) and extend their lives.	\$0.25 \$45 K	\$0.50 \$90 K
Promote reuse events	<ul style="list-style-type: none">Explore options for reuse events to facilitate trading, selling or giveaway of materials for reuse (e.g., furniture, toys) in a convenient, yet structured way so that the events do not contribute to litter or illegal dumping.	\$0.25 \$45 K	\$0.50 \$90 K
Waste reduction education and outreach	<ul style="list-style-type: none">Increase of general awareness campaigns on waste reduction (e.g., in addition to the above, buy in bulk, buy products that last, repair products, avoid disposable products, unaddressed ad mail opt out, etc.)	\$0.55 \$100 K	\$1.10 \$200 K



Waste Reduction Policies



Background:

Many of the City's waste diversion and reduction programs are voluntary; there is no mandatory recycling by-law for example. Other programs are written into the waste collection by-law, such as the 3 container limit on garbage, and a collection ban on materials such as scrap metal, appliances, and electronics.



Expanding the power of the by-law to reduce waste can be an effective means of increasing waste diversion. Changes to the by-law can also be implemented at relatively low cost. However, implementing by-law changes may not be popular, and this needs to be considered as we go forward. Alternative approaches that provide incentives to reduce will also be explored.

More research is required to understand costs, citizen acceptance of by-law changes, potential impact on diversion, and GHG reduction.

Do you support changes to the By-law to increase waste diversion?

Indicate which of the examples below you support.

Yes

☐

No

☐

Expand & enforce material bans

Some materials are banned from collection at the curb and landfill (e.g., electronics, scrap metal, appliances, and tires). This could be expanded to include materials that can be recycled/composted now or in the future, such as: Blue Box recyclables, wooden furniture, mattresses, carpet, and organics. An expanded list of banned materials may require additional enforcement to be effective.

Clear bags for garbage

Some municipalities have introduced clear bags for garbage to facilitate enforcement of material bans. Generally, clear bag programs have an allowance for one non-clear privacy bag.

Reduced garbage container limits

Further reduction of garbage container limits may be implemented in conjunction with new diversion programs, such as a city-wide organics program. This may also be accomplished by reducing frequency of collection of garbage (from once per six business days to bi-weekly collection).

User pay

In larger communities, user pay for garbage is typically restricted to cart based programs; residents pay an annual fee based on the size of cart they select.

Performance-based incentives

Some examples include: use of incentives such as point reward systems, or a "gold box" for correct recycling, rebate in User Pay programs for selection of the small size cart.