

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON MAY 10, 2016
FROM:	JOHN BRAAM, P.ENG MANAGING DIRECTOR - ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER
SUBJECT	OPTIONS FOR COLLECTION AND DIVERSION OF CHRISTMAS TREES

RECOMMENDATION

That, on the recommendation of the Managing Director - Environmental & Engineering Services & City Engineer, the following actions **BE TAKEN**:

- a) A one year Pilot Project for curbside collection of Christmas Trees take place on two Saturdays in January 2017 (January 7 and January 14) to assist with implementation of the 2016 Interim Waste Diversion Plan **BE APPROVED**;
- b) That the temporary, seasonal Christmas Tree Depot service be eliminated for January 2017 **BE APPROVED**, noting that the 4 EnviroDepots are open on winter hours;
- c) That Civic Administration **BE DIRECTED** to prepare amendments to the Municipal Waste & Resource Materials Collection By-law (WM-12) designating Christmas Trees as a non-collectable material for Council's consideration;
- d) That Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this matter; and
- e) That Civic Administration report back to the Civic Works Committee by April 2017 on the results of the Pilot Project **BE APPROVED**.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

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

- Update: Interim Waste Diversion Plan (2014-2015) and Additions for 2016 (February 2, 2016 meeting of the Civic Works Committee (CWC), Item #15)
- Waste Diversion – Update on Examination of Residential Organic Waste (Food Scraps) and Next Steps (April 20, 2015 meeting of the CWC, Item #13)
- Interim Waste Diversion Plan 2014-2015 (July 21, 2014 meeting of the CWC Item #18)
- Updates – Proposed Waste Reduction Act and Related Matters for Financing the Blue Box Program (February 3, 2014 meeting of the CWC, Item #8)
- Waste Diversion and Garbage Collection Updates (November 25, 2013 meeting of the CWC, Item #7)
- Status Report: Update of Road Map to Maximize Waste Diversion 2.0 (July 22, 2013 meeting of the CWC, Item #14)

STRATEGIC PLAN 2015-2019

Municipal Council has recognized the importance of solid waste management including waste diversion, climate change and other related environmental issues in its 2015-2019 - Strategic Plan for the City of London ([2015 – 2019 Strategic Plan](#)). With respect to this CWC Report 2 of the 4 Areas of Focus address increasing waste diversion as it relates to increasing Christmas tree composting:

Building a Sustainable City

- Strong and healthy environment

Leading in Public Service

- Excellent service delivery

BACKGROUND**PURPOSE:**

The purpose of this report is to examine the options to divert more Christmas trees to chipping and composting versus sending to landfill and recommend a preferred option.

CONTEXT:

At the February 2, 2016 meeting of Civic Works Committee staff presented the report Update: *Interim Waste Diversion Plan (2014 – 2015) and Additions for 2016*. That report provided updates on the five remaining (not completed) approved actions from the 2014 – 2015 Interim Waste Diversion Plan (IWDP) and proposed three new items to be added in 2016. These eight initiatives are presented in Appendix A.

This report examines one of the new items added for review in 2016; examining the options for increasing Christmas tree composting. At the February 16, 2016 meeting of Municipal Council, Civic Administration were directed among other items, to prepare and submit to the Civic Works Committee the following from clause c) of the Council Resolution:

- i) a report examining the options for increasing Christmas tree composting (by April 2016)*

DISCUSSION:**Current Christmas Tree Management Choices for London Residents**

London's current program offers four choices for residents to manage Christmas trees (Table 1). The current program has been in place since 1996.

Table 1: Current Choices for Managing Christmas Trees

#	Program Choice	Details
1	Temporary Christmas Tree Drop-off depots	Six depots operated and maintained by Forestry Operations are open for approximately 10 days following January 1. Trees are chipped and used for mulch and landscaping purposes (e.g., City facilities, local farms, etc.)
2	Permanent EnviroDepots	Four EnviroDepots are open year round (two depots have reduced winter hours). TRY Recycling operates 3 of the EnviroDepots under contract. Trees are transported to TRY Recycling where they are chipped and composted.
3	Curbside collection with garbage	Collection crews collect the trees with regular garbage and deliver to the W12A Landfill.
4	Curbside collection with yard materials	Residents can hold their Christmas tree until yard material collection begins in the spring. Trees are collected with other yard materials and they are taken to TRY Recycling to be chipped and composted (under contract). The first round of yard material collection begins in the last week of March and is complete for all zones by the end of the first week in May.

Estimated Program Cost and Quantities

The total estimated cost of managing Christmas trees is difficult to calculate as it is not possible to isolate costs for Program Choices 2, 3 and 4 (Table 1). The chipping and processing costs for Choice 1 are typically between \$40,000 and \$60,000 per year. The range varies based on quantities of Christmas trees brought to the temporary depots, the time required to prepare some trees for chipping, the weather conditions and the duration that the piles of trees sit on the ground before processing.

The majority of the Christmas tree chipping program costs have been covered by Forestry Operations as a service to the Solid Waste Services area.

Approximately 120 tonnes of trees are received at the temporary depots for chipping. Few tonnes (less than 10) are received at the permanent EnviroDepots. Combined, this represents approximately 15,000 trees diverted from landfill each year.

Review of Other Municipalities

City staff surveyed 17 other Ontario municipalities. All 17 municipalities have banned curbside collection of Christmas trees with garbage and 15 provide curbside Christmas tree collection. Two municipalities require residents to deliver to a depot. A table showing the summary of findings is in Appendix B.

Future Options for London

The existing program and three new options for London are summarized on Table 2 and described on Table 3 as follows:

1. No Change (4 Program Choices)
2. No Curbside Collection Plus 3 Existing Program Choices
3. Dedicated Saturday Collection Plus 2 Existing Program Choices
4. Dedicated Collection Weeks Plus 2 Existing Program Choices

Table 2: Overview of Options for Managing Christmas Trees

#	Options	Dedicated Saturday Curbside	Dedicated Curbside Week	Temporary Drop-off depots	Enviro-Depots	Curbside collection with garbage	Curbside collection with yard materials starting in March
1	No Change (4 Program Choices)	No	No	Yes	Yes	Yes	Yes
2	No Curbside Collection Plus 3 Existing Program Choices	No	No	Yes	Yes	No	Yes
3	Dedicated Saturday Collection (two Saturdays)	Yes	No	No	Yes	No	Yes
4	Dedicated Collection Weeks (two weeks)	No	Yes	No	Yes	No	Yes

Table 3: Description of 4 Future Options for Managing Christmas Trees

#	Option	Details	Advantages & Disadvantages	Cost ¹
1	No Change (4 Program Choices)	Continue to operate temporary and permanent depots and collect at curb with garbage	<u>Advantages:</u> <ul style="list-style-type: none"> No change required of residents <u>Disadvantages:</u> <ul style="list-style-type: none"> Does not encourage increased waste diversion Does not provide a service that is standard in most other municipalities 	\$40,000 to \$60,000
2	No Curbside Collection Plus 3 Existing Program Choices	No longer collect trees at the curb with garbage. Residents are required to take to a depot or wait until spring yard materials collection.	<u>Advantages:</u> <ul style="list-style-type: none"> More trees diverted <u>Disadvantages:</u> <ul style="list-style-type: none"> Reduced collection service Inconvenient for those that do not wish to use depot Temporary depot costs may increase Collection/composting costs in spring yard materials collection may increase 	\$60,000 to \$90,000
3	Dedicated Saturday Collection Plus 2 Existing Program Choices	Collect over two Saturdays. Saturday January 7 Zones A,B,C Saturday January 14 Zones D,E,F	<u>Advantages:</u> <ul style="list-style-type: none"> Convenient for residents Collection on one day reduces risk of trees being covered with snow Similar service level as other municipalities Availability of staff and trucks to work full day as they are not also collecting garbage More trees diverted <u>Disadvantages:</u> <ul style="list-style-type: none"> Temporary depots will be closed Trees may become lodged in the snow if set out early 	\$47,000 to \$60,000
4	Dedicated Collection Weeks Plus 2 Existing Program Choices	Similar to yard materials collection, households would be scheduled for one of two weeks and instructed to set out on Monday for collection sometime during the week, e.g. first week – Zones C,D,E, second week – Zones F,A,B	<u>Advantages:</u> <ul style="list-style-type: none"> Convenient for residents – similar to ‘green weeks’ collection More trees diverted Offers more scheduling flexibility for collection operations <u>Disadvantages:</u> <ul style="list-style-type: none"> Temporary depots will be closed Trees may become lodged in the snow when they are set out on the Monday 	\$47,000 to \$60,000

Notes:

¹ Details of cost estimates are shown in Appendix C.

Increase in Diversion

As noted before about 120 tonnes of trees (approximately 15,000 trees) are diverted from landfill each year in London.

Data from other municipalities suggest that London would collect between 220 and 270 tonnes per year of trees for composting with a dedicated curbside collection program.

Next Steps – Implement Pilot Project

Based on our program review and the review of other municipalities, City staff summarize the next steps as follows:

- A separate collection for Christmas Trees is practical and will increase convenience for Londoners that do not wish to drive to one of the temporary depots. This can be undertaken in January 2017 at no additional cost.
- Undertaking a Pilot Project for one year (January 2017) will allow us to determine if this is the most practical approach for London. Temporary depots must be eliminated during the Pilot Project and Christmas trees will not be collected with regular garbage.
- From a customer service perspective, a Saturday collection on January 7 (half the city) and January 14 (half the city) has the most advantages versus disadvantages compared with the other options.
- Operationally, the Saturday collection is best; however this service can be impacted by weather.
- Christmas trees that are currently placed at the curb for garbage will now be diverted from landfill to beneficial uses.
- Amendments to the Municipal Waste & Resource Materials Collection By-law (WM-12) designating Christmas Trees as a non-collectable material will be made.
- Changes will occur to the Waste Reduction and Conservation Calendar and a communications campaign would occur in late December 2016 and early January 2017.
- Program changes come with some frustration for residents. This will be part of the program outreach, awareness and customer service response.
- In 2018 and beyond, budget has been approved by Council for future waste diversion initiatives. Forestry Operations, for example, would have the opportunity to undertake higher value work on tree maintenance rather than expend funds on chipping Christmas trees. Operational responsibilities for Christmas tree management will be assigned to Solid Waste Management.

Conclusion

The opportunity to provide an improved collection service to Londoners and increase waste diversion for about the same annual expenditure would be confirmed during a Pilot Project to occur in January 2017. Several adjustments would be required and communicated to Londoners.

Re-aligning program expenditures to ensure an increased level of value is obtained between Forestry Operations and Solid Waste Management (Waste Diversion) would occur in 2018 and beyond.

The outcome of the Pilot Project will be presented to the Civic Works Committee by April 2017.

ACKNOWLEDGEMENTS

This report was prepared with the assistance of Jana Corby, Solid Waste Planning Coordinator and Wesley Abbott, Project Manager, Solid Waste Management and with concurrence from Roads and Transportation.

PREPARED BY:	
KEVIN SPRINGER, MANAGER, WASTE COLLECTION OPERATIONS	
PREPARED BY:	PREPARED BY:
ANNE BOYD, B.A., B.E.SC. MANAGER, WASTE DIVERSION	MICHAEL LOSEE, B.SC. DIVISION MANAGER, SOLID WASTE MANAGEMENT
PREPARED AND SUBMITTED BY:	RECOMMENDED BY:
JAY STANFORD, M.A., M.P.A. DIRECTOR, ENVIRONMENT, FLEET & SOLID WASTE	JOHN BRAAM, P.ENG. MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER

c Edward Soldo, P.Eng., Director Roads & Transportation

Appendix A Interim Waste Diversion Plan Initiatives, 2016 (Status reflects January 2016)

Appendix B Christmas Tree Composting Options in other Municipalities, 2016

Appendix C Cost Estimates

Appendix A
Interim Waste Diversion Plan Initiatives, 2016
(Status reflects January 2016)

#	Initiative/Program	Comment	Status
Carryover from 2014-2015 IWDP			
1	Add vegetable oil and used motor oil to EnviroDepots	<ul style="list-style-type: none"> Requires Environmental Compliance Approval (ECA) amendment by MOECC for implementation A pilot project is underway for fats, oils and greases (FOG) to obtain additional details on handling methods and citizen comments at the depots 	<ul style="list-style-type: none"> In progress Next step is to amend EnviroDepots Environmental Compliance Approval
2	Examine reduced container limits for garbage	<ul style="list-style-type: none"> Survey work undertaken in 2014 (85% to 90% of households set out 3 or fewer garbage containers) 	<ul style="list-style-type: none"> CWC report in April 2016 details next steps
3	Begin a community composting pilot project	<ul style="list-style-type: none"> In 2015, community composting projects were started in six locations at multi-residential buildings and will continue in 2016 Related work with the community via the London Environmental Network 	<ul style="list-style-type: none"> In progress 50% complete CWC report in Quarter 1 2017
4	Begin food reduction awareness pilot project	<ul style="list-style-type: none"> London participates on several local and provincial working groups that are exploring this new potential area of waste reduction, cost savings and community benefit Activities will occur throughout 2016 	<ul style="list-style-type: none"> In progress 20% complete CWC report in Quarter 1 2017
5	Examine incentive options for Blue Box recycling	<ul style="list-style-type: none"> Preliminary work has begun on potential incentives Will be influenced by the direction set by the Provincial Government 	<ul style="list-style-type: none"> In progress 20% complete Future report tied to Provincial direction
New Initiatives			
6	Examine increasing Christmas tree composting	<ul style="list-style-type: none"> Examine the options for increasing Christmas tree composting 	<ul style="list-style-type: none"> Subject of this report
7	Examine selling Blue Boxes from EnviroDepots	<ul style="list-style-type: none"> Examine the advantages, disadvantages and requirements of selling Blue Boxes at the EnviroDepots 	<ul style="list-style-type: none"> CWC report in April 2016
8	Explore increasing downtown recycling	<ul style="list-style-type: none"> Examine options for increased recycling in the downtown core Currently pilot downtown drop-off depot 	<ul style="list-style-type: none"> In progress 20% complete Future report tied to Provincial direction

Appendix B
Christmas Tree Composting Options in other Municipalities, 2016

#	Municipality	Collected on one scheduled day	Option when collection is missed	Temporary Tree Depots
1	Durham Region	✓	Depot	No
2	Halton Region	✓	Depot	No
3	Hamilton	✓	Depot	No
4	Niagara Region	✓	Depot	No
5	Peel Region	✓	Depot	No
6	Simcoe Region	✓	Depot	No
7	Sudbury	✓	Depot	No
8	Toronto	✓	Depot	No
9	Waterloo	✓	Depot	No
10	Windsor	✓	Depot	No
11	Woodstock	✓	Depot	No
12	York Region	✓	Depot	No
Municipalities that do not provide collection on one scheduled day				
#	Municipality	Collection details	Option when collection is missed	Temporary Tree Depots
13	Barrie	Collected every Friday in January	Depot	No
14	Ottawa	Collected on any Green Bin day	Not accepted at Depots	No
15	Sarnia	One week, pickup will take place sometime during the week	Depot	No
Municipalities that do not collect at the curb				
#	Municipality	Options	Collected with garbage	Temporary Tree Depots
16	Guelph	Take to one drop-off depot Promote non-profit collection program	No	No
17	Thunder Bay	Take to drop-off depot	No	Yes - 10
	London	Take to drop-off depot	Yes	Yes - 6

Appendix C Cost Estimates

Cost Estimates and Notes

#	Option	Details	Collection Costs	Processing (composting) Costs	Total Estimated Costs
1	No Change (4 Program Choices)	Continue to operate temporary and permanent depots and collect at curb with garbage	Same	Same	\$40,000 to \$60,000
2	No Curbside Collection Plus 3 Existing Program Choices	No longer collect trees at the curb with garbage. Residents are required to take to a depot or wait until spring yard materials collection.	Not collected with garbage. More collected during first green week		\$60,000 to 90,000 ¹
3	Dedicated Saturday Collection (two Saturdays)	Collect over two Saturdays. Saturday January 7 Zones A,B,C Saturday January 14 Zones D,E,F	\$35,000 to \$45,000 ²	\$12,000 to \$15,000 ³	\$47,000 to \$60,000
4	Dedicated Collection Weeks (two weeks)	Similar to yard materials collection, households would be scheduled for one of two weeks and instructed to set out on Monday for collection sometime during the week, e.g. first week – Zones C,D,E, second week – Zones F,A,B	\$35,000 to \$45,000 ²	\$12,000 to \$15,000 ³	\$47,000 to \$60,000

Notes:

¹Estimate of 25% of 250 tonnes would be collected in Green Week, and 75% taken to temporary Christmas tree depots. Option 2 costs estimated at 50% more than Option 1 costs.

²Estimate includes overtimes costs, where anticipated.

³Estimate that between 220 and 270 tonnes would be processed for composting at \$55 per tonne