

<b>TO:</b>	<b>CHAIR AND MEMBERS WASTE MANAGEMENT WORKING GROUP MEETING ON SEPTEMBER 28, 2017</b>
<b>FROM:</b>	<b>JAY STANFORD, M.A., M.P.A. DIRECTOR - ENVIRONMENT, FLEET &amp; SOLID WASTE</b>
<b>SUBJECT:</b>	<b>UPDATE REPORT #5: PROGRAMS, PROJECTS AND PROVINCIAL ACTIVITIES THAT WILL INFORM AND/OR INFLUENCE STRATEGIES</b>

### 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](http://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)

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

- Update Report #2 - Programs, Projects and Provincial Activities that will Inform and/or Influence Strategies (June 14, 2017 meeting of the Waste Management Working Group (WMWG), Item #8)
- Resource Recovery Update (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 AND CONTEXT:**

This report provides the Waste Management Working Group with an update on a number of projects, programs and provincial activities that will inform and/or influence the Resource Recovery and Residual Waste Disposal Strategies. This update covers the period June 1 to September 12, 2017.

## DISCUSSION

### ***Waste Free Ontario Act***

In November 2015, the Minister of the Environment and Climate Change (MOECC) introduced a new legislative framework for managing waste in Ontario under Bill 151, *Waste Free Ontario Act (WFOA)*. The legislation is comprised of two Acts, the *Resource Recovery and Circular Economy Act (RRCEA)*, and the *Waste Diversion Transition Act (WDTA)*. Bill 151 received Royal Assent in June 2016 and was proclaimed November 30, 2016.

This legislation and accompanying Strategy (below) will result in a range of changes on how waste will be handled in Ontario over many years. These changes and direction have the potential to impact most aspects of London's residential waste management system (generally under the responsibility of Municipal Council). The new legislation is designed to ultimately impact producers, retailers, suppliers and recycling service providers across the product/package chain. It will also have some influence on how IC&I waste is managed by businesses and private waste management companies.

### **Strategy for a Waste-Free Ontario Building the Circular Economy**

The MOECC published the final Strategy for a Waste-Free Ontario: Building the Circular Economy in February 2017, a requirement of the *Waste Free Ontario Act, 2016*, (WFOA), which outlines a road map for resource recovery and waste reduction for Ontario. It also:

- sets a vision and goals including interim waste diversion goals for 2020 (30%), 2030 (50%) and 2050 (80%);
- articulates key government actions to support implementation of the vision and goals; and
- identifies performance measures to measure progress towards achieving the vision and goals.

The Strategy focuses on moving Ontario towards a circular economy described as “a system where nothing is wasted and valuable materials destined for landfill are put back into the economy without negative effects on the environment.” This approach – a circular economy – has the potential to reduce greenhouse gas emissions, save and better utilize scarce resources, create jobs and create financial opportunities.

### **Municipal Involvement with Respect Waste Management in Ontario**

For several years, waste management and other organizations across the province have been reviewing and establishing positions and making contributions to policy and regulatory development. City staff is actively involved in several of these organizations:

- Association of Municipalities of Ontario (AMO) – City staff sit on the Waste Management Task Force of AMO (combination of elected officials and municipal staff). Appendix A contains a recent release from AMO on Provincial direction (The Waste Free Ontario Act: What it Means for Current and Future Waste Diversion Programs in Your Municipality, August 29, 2017).
- Regional Public Works Commissioners of Ontario (RPWCO) – City staff sit on the main committee and the Solid Waste Subcommittee.
- Ontario Waste Management Association (OWMA) – City staff sit on the Board of Directors.
- Municipal Resource Recovery and Research (3Rs) Collaborative – is a recently formed group comprised of the AMO, RPWCO, Municipal Waste Association and City of Toronto. London is a member of the 3Rs Collaborative.
- Municipal Waste Association (MWA) and Recycling Council of Ontario (RCO) – receiving updates and comments via general membership.

## City of London

In addition to ongoing efforts to maintain and/or improve existing waste diversion/resource recovery programs, listed below are additional initiatives that have been underway to assist with the advancement of waste prevention and resource recovery. The updates are for the period June 2 to September 12, 2017.

Initiative	Updates – June 2 to September, 2017
Organics Management	<ul style="list-style-type: none"> <li>• Municipal Council submitted comments to the Environmental Bill of Rights (EBR) Registry with respect to MOECC's discussion paper, "Addressing Food and Organic Waste in Ontario". This paper was designed to serve as the basis for preliminary discussions with stakeholders to inform the development of the Food and Organic Waste Framework which aims to:               <ul style="list-style-type: none"> <li>• <i>"Reduce the amount of food that becomes waste</i></li> <li>• <i>Remove food and organic waste from the disposal stream</i></li> <li>• <i>Reduce greenhouse gas emissions that result from food and organic waste</i></li> <li>• <i>Support and stimulate end markets that recover the value from food and organic wastes</i></li> <li>• <i>Increase accountability of responsible parties</i></li> <li>• <i>Improve data on food and organic waste</i></li> <li>• <i>Enhance promotion and education regarding food and organic waste."</i></li> </ul> </li> </ul> <p>The City submission can be found under the Civic Works Committee (CWC) meeting on July 17, 2017 entitled Comments on Environmental Bill of Rights Registry – Discussion Paper: Addressing Food and Organic Waste in Ontario.</p> <ul style="list-style-type: none"> <li>• See additional rows below for other organics related work.</li> <li>• A Green Bin Program update will be submitted to the Waste Management Working Group and CWC in the fall 2017 or early 2018 to coincide with the development of an London's implementation plan that must also consider the ongoing developments from MOECC as part of its Food and Organic Waste Action Plan.</li> </ul>
Community Impacts from Facilities in the general vicinity of Shaver-Brockley communities (general south of Highway 401)	<ul style="list-style-type: none"> <li>• Mayor Brown and Councilor Usher brought community concerns to Planning &amp; Environment Committee (PEC) on November 28, 2016 which resulted in the following direction to City staff approved by Municipal Council on December 6, 2016: <i>"The Civic Administration BE DIRECTED to report back to a future meeting of the Planning and Environment Committee with an update relating to what measures have been and could be undertaken to address the negative impacts that the industrial uses in the area are having on the Shaver-Brockley community and surrounding area and what the City of London can do to mitigate the impacts."</i></li> <li>• A Public Participation Meeting (PPM) was held at PEC on August 28, 2017. At the meet City staff presented a report entitled Review of Impacts from Industrial Sources (Focus on Odour) and Potential Municipal Actions (Primarily South of Highway 401).</li> <li>• At the September 5, 2017 Council meeting, 13 recommendations were approved.</li> </ul>

Initiative	Updates – June 2 to September, 2017
Avoiding Food Waste	<ul style="list-style-type: none"> <li>• Household Food Waste Survey, designed and implemented by Western University with support from the City of London, was completed in early July. Over 1,500 participated in the survey. Results are currently being analyzed by Western University.</li> <li>• Implementation of a food waste avoidance (management) pilot project with Western University starting in mid-September.</li> </ul>
Waste Characterization and Composition	<ul style="list-style-type: none"> <li>• City of London is currently participating in several major waste composition and characterization studies:</li> <li>• 4 season residential waste composition study from approximately 100 homes and five multi-residential buildings. Activities will occur in fall and winter 2017 and spring and summer 2018. These audits are paid for by Stewardship Ontario (industry) and occur every couple of years across Ontario.</li> <li>• Food waste characterization study (avoidable versus not avoidable food waste) as part of the above audits.</li> <li>• Food waste characterization study (avoidable versus not avoidable food waste) as part of the Western University Household Food Waste Survey.</li> <li>• Waste characterization as part of the mixed waste processing examinations (see below).</li> </ul>
Home Composting/ Community Composting	<ul style="list-style-type: none"> <li>• Continued engagement in community efforts that support composting education, including home composting and community composting at multi-residential buildings.</li> <li>• Composter and digester sales at the City EnviroDepots were strong during the spring months with a total of 240 units sold.</li> <li>• The Draft Urban Agriculture Strategy has references and activities associated with home and community composting and recovery of food waste. The draft strategy has been approved by PEC for circulation. Further work on this strategy is being undertaken by Planning staff with the final strategy to be presented to Council for approval this autumn.</li> </ul>
Mixed Waste Processing	<ul style="list-style-type: none"> <li>• London is one of seven Ontario municipalities that is part of a Municipal Working Group for Mixed Waste Processing (led by the Region of Peel).</li> <li>• Ongoing discussions and information sharing with Working Group. Next meeting scheduled for fall 2017.</li> <li>• Additional documentation, analysis, waste composition and characterization on London waste currently being prepared by City staff (with support from technical experts). These details are a key foundation for the development of the Resource Recovery Strategy including organics management.</li> </ul>
Institutional Waste, Recyclables and Organics	<ul style="list-style-type: none"> <li>• No additional work undertaken by City staff on this subject and/or the broader industrial, commercial and institutional (IC&amp;I) waste stream.</li> <li>• Appears to be a lower priority at the Provincial level at this time.</li> </ul>
Biogas and Renewable Natural Gas (RNG) Production from Waste	<ul style="list-style-type: none"> <li>• Working on an application to Ontario's Municipal GHG Challenge Fund to provide potential funding, in a competitive process, to develop a RNG production facility <ul style="list-style-type: none"> <li>• Sized to make use of current landfill gas collected from the W12A landfill, with the ability to scale up in the future to add upgrading biogas from organics management.</li> <li>• Given that this is a competitive application process, there is no guarantee that this funding will be received.</li> <li>• Application due November 14, 2017; Successful applicants will be informed in writing by February, 2018.</li> </ul> </li> </ul>

Initiative	Updates – June 2 to September, 2017
<p>London Waste to Resources Innovation Centre (with a focus on new, emerging, and/or next generation technologies)</p>	<ul style="list-style-type: none"> <li>• Five Memorandums of Understanding (MoU) approved by Council: <ul style="list-style-type: none"> <li>• Green Shields Energy (GSE) - a working relationship to explore the viability of a Gas Phase Reduction (GPR) technology for managing solid waste.</li> <li>• Western University (Institute of Chemicals and Fuels from Alternative Resources - ICFAR) – a working relationship covering the broad sectors of solid waste management, biomass management and related sectors that produce waste materials.</li> <li>• Hawthorne Thorne Green Key Group - Hawthorne has the Canadian rights to the Tucker Advanced Pyrolysis Technology, known as the Pyrolator, a patented “non-burn technology” with numerous economical and environmental advantages over both traditional burn (combustion – energy-from-waste) technologies, gasification, and pyrolysis technologies.</li> <li>• Bio-Techfar - Bio-Techfar have developed a proprietary pyrolysis technology, referred to as the BT-100/500, that has successfully converted a range of biomass materials into pyrolysis-oil and pyrolysis-char for both energy and non-energy applications.</li> <li>• Try Recycling - Try Recycling will be looking at new beneficial use products including solid recovered fuel (SRF) (from size reduction of bulky and other items); unwanted (end-of-life) bulky items like couches, mattresses; and enhanced/customized soil conditioners.</li> </ul> </li> <li>• City staff are in discussion with two other businesses that have expressed recent interest and one large association.</li> <li>• City staff have been working with Western on funding applications dealing with academic grants and research projects.</li> </ul>
<p>Garbage &amp; Resources (Recyclables, Food &amp; Other Organics) Collection Systems</p>	<p>City staff continue examining two garbage and resource collection program alternatives (using CNG waste collection vehicles and/or using semi or fully automated collection) for submission to Civic Works Committee in December 2017 or early 2018.</p>
<p>Recycling in Downtown</p>	<p>City staff continuing to work on a report examining Recycling Engagement and Program Development for downtown for submission to Civic Works Committee in late 2017/early 2018. This will be tied to changes in Provincial legislation.</p>
<p>Landfill Gas Recovery to Energy</p>	<p>No change with respect to proposed 500kW power plant using approximately 15% of the landfill gas currently captured. Still waiting to for decision on City’s application. Expect a decision sometime in fall 2017 or early 2018.</p> <p>Work on business case to evaluate the feasibility of converting all (in the event FIT application not accepted) or the remaining portion of captured landfill gas at W12A to RNG for either direct City fleet use or pipeline injection will begin late 2017 or early 2018.</p>
<p>Landfill Planning and Management in Ontario</p>	<p>The MOECC will be awarding in late September or October a consulting project to study landfill planning and management in Ontario. This study will consider “<i>options and recommendations for Ontario’s approaches for planning and managing Landfills both at a regional and provincial scale, learning from best practices of other jurisdictions and an assessment of social, environmental and economic implications of options and recommendations.</i>”</p>

Initiative	Updates – June 2 to September, 2017
Landfill Best Practices	MOECC review of appropriate hydrogeological settings for landfills in Ontario has been completed ( <i>A State of the Science Review of Landfill Siting and Site Characterization and Risk in Relation to Landfills</i> , Dillon Consulting, 2017). Review recommends that landfill standards for the Province be reviewed and updated but the overall approach for addressing management of groundwater in different hydrogeological settings in Ontario is reasonable.

## ACKNOWLEDGEMENTS

This report was prepared with assistance from Mike Losee, Division Manager, Solid Waste Management and Anne Boyd, Manager, Waste Diversion.

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Appendix A The Waste Free Ontario Act: What it Means for Current and Future Waste Diversion Programs in Your Municipality, August 29, 2017

## Appendix A