



THE REGIONAL MUNICIPALITY OF NIAGARA
WASTE MANAGEMENT
PLANNING STEERING COMMITTEE
AGENDA

WMPSC 5-2019

Monday, October 28, 2019

9:00 a.m.

Committee Room 4

Niagara Region Headquarters

1815 Sir Isaac Brock Way, Thorold ON

| | Pages |
|--|---------|
| 1. <u>CALL TO ORDER</u> | |
| 2. <u>DISCLOSURES OF PECUNIARY INTEREST</u> | |
| 3. <u>PRESENTATIONS</u> | |
| 3.1 <u>Managing Diaper Waste Under Every Other Week Garbage Collection</u> | 3 - 15 |
| Brad Whitelaw, Program Manager, Policy and Planning | |
| 4. <u>DELEGATIONS</u> | |
| 5. <u>ITEMS FOR CONSIDERATION</u> | |
| 5.1 <u>WMPSC-C 35-2019</u> | 16 - 25 |
| Status of the Waste Management Advisory Committee | |
| 6. <u>CONSENT ITEMS FOR INFORMATION</u> | |
| 6.1 <u>WMPSC-C 33-2019</u> | 26 - 29 |
| Councillor Information Request | |
| 6.2 <u>WMPSC-C 34-2019</u> | 30 - 41 |
| Alternative Waste Management Technologies Update | |

| | | |
|-----|--|---------|
| 6.3 | <u>WMPSC-C 36-2019</u> | 42 - 53 |
| | Deposit Return Programs | |
| 6.4 | <u>WMPSC-C 37-2019</u> | 54 - 62 |
| | Anti-Litter Initiatives - Blue Box Lid | |
| 6.5 | <u>WMPSC-C 38-2019</u> | 63 |
| | 2020 Meeting Schedule | |

7. OTHER BUSINESS

8. NEXT MEETING

The next meeting will be held on Monday, January 27, 2020 at 9:00 a.m. in the Committee Room 4, Regional Headquarters.

9. ADJOURNMENT

If you require any accommodations for a disability in order to attend or participate in meetings or events, please contact the Accessibility Advisory Coordinator at 905-980-6000 (office), 289-929-8376 (cellphone) or accessibility@niagararegion.ca (email).

Managing Diaper Waste Under Every Other Week Garbage Collection

Waste Management Planning Steering Committee
October 28, 2019

Purpose

- At the October 17, 2019 Regional Council Special Meeting, it was requested that the Region provide residents with children in diapers, or living with a medical condition, with an option to manage their diaper or incontinence waste during the off-weeks of Every-Other-Week (EOW) garbage collection.
- The purpose of this presentation is to obtain support from WMPSC for the recommendation to be submitted to the Public Works Committee (PWC) meeting on December 3, 2019, which will provide an additional option for residents to manage this waste.

Niagara's Current Diaper Exemption Program

- **Low-Density Residential (LDR) Properties, up to 6 Units, with Children in Diapers:**
 - One clear bag of diapers per unit collected per week, for households with two children in diapers under the age of four (without a tag).
 - Two clear bags of diapers per unit collected per week, for households with three or more children in diapers under the age of four (without a tag).
- **Daycares Operating out of LDR Properties, up to 6 Units:**
 - Two clear bags of diapers collected per week (without a tag).

Niagara's Current Medical Exemption Program

- **LDR Properties, up to 6 Units, including Homes for Adults with Disabilities, or Individuals with a Medical Condition:**
 - Residents receive 52 free garbage tags annually.
 - Additional tags will be made available, on a case-by-case basis, subject to an annual application process and doctor's approval, every three years.
- **Group Homes, Homes for Adults with Disabilities and Homes for Assisted Living:**
 - Residents receive 52 free garbage tags annually.
 - If the home has one or more individuals with a medical condition, the medical exemption form should be used.

Municipal Comparison of Diaper and Medical Exemption Programs – EOW Garbage Collection

1. Region of Durham:

- Make special consideration for residents with a medical condition or households with three children, who are younger than three years old, in diapers.
- Provide additional bag tags to these residents for EOW garbage collection.
- Do not provide free disposal of these items at their transfer stations.
- Region staff reported no issues from residents when they switched to EOW garbage collection.

Municipal Comparison of Diaper and Medical Exemption Programs – EOW Garbage Collection (cont'd)

2. Region of Halton:

- Diaper bag tag program intended for households with young children using diapers.
- Healthcare bag tag program intended for households with a person(s) experiencing a medical condition.
- A household can apply to receive up to 40 diaper bag tags, or 40 healthcare bag tags, per a 12 month period, free of charge.
- Diapers must be placed in clear garbage bags with the diaper bag tag clearly visible. Solid coloured bags (even with a diaper bag tag) will not be collected.
- Medical items (e.g. incontinence products) can be placed in black garbage bags with the healthcare bag tag clearly visible.
- Diaper bags and healthcare bags collected EOW with regular garbage.
- Residents can also drop off clear diaper bags or black healthcare bags, with bag tags attached, at the Regional landfill site or transfer stations.

Municipal Comparison of Diaper and Medical Exemption Programs – EOW Garbage Collection (cont'd)

3. Region of Waterloo:

- Residents who receive curbside collection can drop off a clear bag containing diapers or incontinence products only to either of the Region's waste management sites.
- Residents who have a medical condition that results in waste that can't be recycled (such as incontinence products, or unrecyclable medical packaging), may be eligible for the Medical Exemption program. If approved, they receive 30 free garbage tags per year.
- Region staff reported some initial concerns from residents prior to the launch of EOW garbage collection, but this subsided shortly afterwards.

Municipal Comparison of Diaper and Medical Exemption Programs – EOW Garbage Collection (cont'd)

4. City of Barrie:

- City staff reported there were initial concerns for the first couple of months from residents when they switched to EOW garbage collection, but this subsided.
- Residents who receive curbside collection can drop off clear bags containing diapers or incontinence products only, at no charge, at the Region's waste management sites, from May 1 to October 31.
- City staff reported that less than 2 tonnes were dropped off this year, at a total cost to the City of approximately \$200.

Municipal Comparison of Diaper and Medical Exemption Programs – EOW Garbage Collection (cont'd)

5. City of Orillia:

- Residents can place out, for curbside collection or take to the drop-off depot, clear bags of diapers or incontinence products.
- City does not require residents to place a \$2 garbage tag on the clear bag, for curbside collection, or drop-off depot.
- Clear bags of diapers or incontinence products mixed with other waste will not be collected without a \$2 garbage tag.
- City staff reported no significant issues from residents when they switched to EOW garbage collection.

Municipal Comparison of Diaper and Medical Exemption Programs – EOW Garbage Collection (cont'd)

6. City of Ottawa:

- City's Special Consideration waste program was created for residents requiring collection of diapers and incontinence products on weeks without scheduled garbage collection.
- Participating households can place one bag of waste diapers and incontinence products out for collection, on the alternating week from garbage collection.
- Residents do not need to identify the garbage bag in any special way, other than ensuring it complies with the City's acceptable container requirements.
- Residents must renew their registration annually.
- City staff reported that most of the time, there is nothing out on these weeks for collection.

Summary – Municipal Trends

In the comparator municipalities' programs (previous slides)

- Curbside collection of diapers and incontinence products remains the most commonly used method by residents.
- Most municipalities provide free bag tags to those residents with diapers or a medical condition.
- Although drop-off depots are not used very often by residents, it is another option to help manage this waste.
- Few municipalities reported initial concerns from residents, prior to the launch of EOW garbage collection, but these concerns subsided shortly afterwards.

Recommendation

Niagara Region is continuing with the existing curbside diaper and medical exemption programs, on an EOW garbage collection basis, where curbside container limits would be doubled. Another option can be provided to residents to help manage their diaper or incontinence waste during the off-weeks of EOW garbage collection:

WMPSC recommends that the following option **BE REFERRED** to the Public Works Committee, for consideration:

1. Provide residents with free disposal of dedicated loads of diapers and incontinence products, which are delivered to Regional landfill drop-off depots, on a year-round basis, effective the date on which the new collection contract begins.

- Diapers need to be placed inside a clear bag, for identification purposes.
- Incontinence products need to be inside a clear bag, or in an opaque bag with a garbage bag tag (provided at no charge under the medical exemption program).
- These items can not be mixed with other household waste, in order to be eligible for free disposal.
- The estimated cost associated with providing residents with free disposal of diapers and incontinence products is \$1,150 per year. This cost is based on a total of 10 tonnes per year being received across all Regional landfill drop-off depots.

Questions?

Subject: Status of the Waste Management Advisory Committee

Report to: Waste Management Planning Steering Committee

Report date: Monday, October 28, 2019

Recommendations

1. That the Waste Management Advisory Committee (WMAC) **BE DISCONTINUED**, effective immediately.

Key Facts

- The purpose of this report is to provide a recommendation regarding the status of the WMAC and to respond to the Councillor Information Request made at the August 26, 2019 Waste Management Planning Steering Committee (WMPSC) meeting, requesting information on options to include citizen members on the WMPSC, given that the Region received a limited number of applications for membership on the WMAC, for the current four-year Council term.
- On April 15, 2019, Niagara Region advertised for citizen members for all of its advisory Committees. Applications were taken over a two-week period.
- Due to the minimal interest in the WMAC, the Region contacted these applicants and obtained their support for repurposing the WMAC into an ad-hoc committee, instead.
- Supplementary to extensive communication/outreach the Region already undertakes, the Region will call upon those interested individuals to participate in focus groups and/or attend meetings, as required by the Region, to obtain their input on various projects.
- An independent external governance review was conducted last year (CLK 05-2019 - Recommendations from Independent External Governance Auditor – First Report). As a result, a number of Regional Advisory/Steering Committees were discontinued by Regional Council in February 2019 because the Committees had not met in quite some time or their mandate was no longer relevant.
- The Region is proposing that the WMAC be discontinued, effective immediately. This will mean that the Waste Management Planning Steering Committee will only have Regional Councillors as members.

Financial Considerations

Currently, two (2) Regional staff are required to attend five (5) WMAC evening meetings each year. If the WMAC is discontinued, there would be a savings associated with Regional staff no longer attending these meetings.

Analysis

Background

The initial intent of the WMAC was to provide input on the development of the Niagara Region's long-term waste plan, which required regularly scheduled meetings. However, the content of recent WMAC meetings has mainly included reports, which were previously presented to WMPSC and/or Public Works Committee (PWC). These reports are available to all members of the public for review on-line. In addition, WMAC members and the public can attend WMPSC and PWC meetings, or request to speak/present at these meetings, if they wish to do so.

Proposed Option for WMAC

The Region received three (3) applications for membership on the WMAC before the submission deadline, and another two (2) applications were received after the deadline. Due to the minimal interest, the Region contacted these five (5) applicants and obtained their support for repurposing the WMAC into an ad-hoc committee, instead. As a result, the Region is proposing that the WMAC be discontinued, effective immediately.

The Region will call upon those interested individuals to participate in focus groups and/or attend meetings, as required by the Region, to obtain their input on various projects. This would be supplementary to the extensive communication/outreach the Region already undertakes for these projects.

Comparison of Other Municipalities

Appendix 1 provides an overview of the various public waste management advisory and/or standing committees at twelve (12) of Niagara Region's comparator municipalities (i.e. Cities of Guelph, Hamilton, London, Ottawa, Toronto, and Windsor, Simcoe County, and the Regions of Durham, Halton, Peel, Waterloo and York).

Based upon a review of these twelve (12) comparator municipalities:

- Seven (7) of these municipalities (i.e. Durham, Peel, Simcoe, Toronto, Waterloo, Windsor and York) do not have any public waste management advisory committee, which is comparable to Niagara Region's WMAC;
- Three (3) of these municipalities (i.e. Halton, Hamilton and Ottawa) have public waste management advisory committees, which include both residents and Councillor representation; and,
- Two (2) of these municipalities (i.e. Guelph and London) have public waste management advisory committees, which include resident representation only.
- All twelve (12) of these municipalities do not include any citizen members on their standing committees of Council.

Options to Include Citizen Members on the WMPSC

In accordance with the WMAC's Terms of Reference, the WMAC Chair and another member designated by the WMAC sit as the only non-political members of the

WMPSC. These WMAC members do not have a vote on legal or financial matters presented to the WMPSC, for consideration. If the Region's proposal to discontinue the WMAC is approved by Council, there would no longer be any citizen representation on the WMPSC.

The WMPSC currently has a membership of nine (9) Regional Councillors, not including the Regional Chair. If it is the WMPSC's intention to include citizen members on the Committee, the current Committee's Terms of Reference would need to be amended to provide for a designated number of citizen members, along with the criteria for membership.

Alternatives Reviewed

An alternative to discontinuing the WMAC would be to maintain it. This is not being recommended due to the limited number of interested residents. With only five (5) members, a quorum of three (3) members would be required at each meeting, which may be difficult to obtain.

Relationship to Council Strategic Priorities

The Region's recommendation to discontinue the WMAC supports Council's strategic priority of Sustainable and Engaging Government by promoting an organizational culture that values continuous improvement, collaboration, and innovation.

Other Pertinent Reports

CLK 05-2019 - Recommendations from Independent External Governance Auditor – First Report

Appendix 1 – Comparison of Other Municipalities’ Waste Management Advisory and/or Standing Committees

| Municipality | Committee Mandates | Committee Compositions |
|---------------------|--|--|
| Durham Region | <ul style="list-style-type: none"> • Durham does not have a specific public Waste Management Advisory Committee. | <ul style="list-style-type: none"> • Not Applicable |
| | <u>Works Committee:</u> <ul style="list-style-type: none"> • Reports to Council on matters relating to Regional public works and infrastructure (i.e. roads, water and waste-water, waste management). | <ul style="list-style-type: none"> • Works Committee is comprised of eight (8) members of Council only. |
| Guelph | <u>Public Advisory Committee (PAC):</u> <ul style="list-style-type: none"> • Forum for in-depth discussion of key study issues, concerns and solutions; • Not a decision-making body and does not have the authority to vote or commit City resources; • Any recommendations made by the PAC are submitted to Committee of the Whole (COTW), for approval. | <ul style="list-style-type: none"> • PAC is comprised of nine (9) members appointed by Guelph City Council. • PAC members may not be employees of the City of Guelph or members of Council. |
| | <u>Committee of the Whole:</u> <ul style="list-style-type: none"> • Fully participates in debate and forwards recommendations to Council for final decision; • Important forum for policy debate and public input on issues within Council’s area of responsibility. | <ul style="list-style-type: none"> • COTW is comprised of members of Council only. |
| Halton Region | <u>Solid Waste Management Advisory Committee (SWMAC):</u> <ul style="list-style-type: none"> • Advises and assists the Region with minimizing waste going to the landfill site; • Supports Regional efforts to promote reduction, reuse and recycling (3Rs) of solid waste generated in Halton and limit off-site impacts due to operations at the Halton Waste Management Site; • Helps monitor waste haulage in the Region as required by the Conditions of Approvals under the Environmental Assessment Act, 1990; | <ul style="list-style-type: none"> • SWMAC is comprised of the following members: <ul style="list-style-type: none"> ○ Four (4) Councillors, one from each Local Municipality, either Regional or Local ○ Eight (8) citizens-at-large (preferably, at least four (4) of whom live near the Halton Waste Management Site) ○ One (1) member from the Halton Agricultural Advisory Committee |

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|--------------|--|--|
| | <ul style="list-style-type: none"> Combined the mandates of the 2014 to 2018 Joint Municipal/ Regional Waste Management Advisory Committee and Halton Waste Management Site Advisory Committee. | <ul style="list-style-type: none"> One (1) member from Conservation Halton One (1) member of Regional staff who performs the Environmental Inspector duties (advisory, non-voting) |
| | <p><u>Planning & Public Works Committee (PPWC):</u></p> <ul style="list-style-type: none"> Reports to Council on matters relating to Regional planning and public works and infrastructure, including (but not limited to) community planning, sustainable planning & climate change, planning policy, water & wastewater services, waste management, road operations, and infrastructure engineering and construction. | <ul style="list-style-type: none"> PPWC is comprised of ten (10) members of Council only. |
| Hamilton | <p><u>Waste Management Advisory Committee (WMAC):</u></p> <ul style="list-style-type: none"> Provides overall guidance and direction during the preparation of the City's long-term Solid Waste Management Master Plan; Advises Council through the Public Works Committee of the study progress and receives feedback, advice and direction, as appropriate. | <ul style="list-style-type: none"> WMAC is comprised of four to five (4 to 5) members, as follows: <ul style="list-style-type: none"> Up to three (3) members of City Council; Two (2) citizen members. |
| | <p><u>Public Works Committee (PWC):</u></p> <ul style="list-style-type: none"> Reports to and make recommendations to Council on various matters, which include Waste Management (Solid Waste Planning, Collection, and Disposal). | <ul style="list-style-type: none"> PWC is comprised of members of Council only. |
| London | <p><u>Advisory Committee on the Environment (ACE):</u></p> <ul style="list-style-type: none"> Reports to Council, through Planning and Environment Committee (PEC); | <ul style="list-style-type: none"> ACE is comprised of a maximum of thirteen (13) members consisting of: <ul style="list-style-type: none"> Nine (9) members-at-large; One (1) representative of the Environmental and |

Appendix 1 – Comparison of Other Municipalities’ Waste Management Advisory and/or Standing Committees

| Municipality | Committee Mandates | Committee Compositions |
|--------------|--|---|
| | <ul style="list-style-type: none"> • Provides input, advice and makes recommendations on environmental matters affecting the City; • Serves as an advisory, resource and information support group to PEC, Council, and its Committees, as required, and to the citizenry to encourage and promote sustainable programs and functions such as the following: <ul style="list-style-type: none"> ○ remedial planning toward the clean-up of contaminated areas; ○ waste reduction, reuse and recycling programs; ○ water and energy conservation measures; ○ climate change mitigation; ○ to investigate such other aspects of environmental concerns as may be suggested by Council, its other Committees, or the Civic Administration; ○ to initiate and/or receive submissions and/or delegations regarding any environmental concerns and to report with recommendations to the PEC. | <p>Ecological Planning Advisory Committee;</p> <ul style="list-style-type: none"> ○ One (1) representative of the Thames Region Ecological Association; ○ One (1) representative of an environmental and/or private sector interest group; ○ One (1) representative of the Industrial/Commercial/Institutional sector. |
| | <p><u>Planning and Environment Committee:</u></p> <ul style="list-style-type: none"> • Reports directly to Council; • Hears delegations from the public, present reports and recommendations to Council. | <ul style="list-style-type: none"> • PEC is comprised of five (5) members of Council only. |
| Ottawa | <p><u>Environmental Stewardship Advisory Committee (ESAC):</u></p> <ul style="list-style-type: none"> • To advise Council on policy, programs and service delivery in the area of environmental stewardship. • Responsible for providing advice to Council on issues pertaining to policy, programs and service delivery in the | <ul style="list-style-type: none"> • ESAC is comprised of a total maximum membership of between nine (9) to eleven (11) citizen members. • Membership also includes one (1) member of Council, in a liaison capacity. |

Appendix 1 – Comparison of Other Municipalities’ Waste Management Advisory and/or Standing Committees

| Municipality | Committee Mandates | Committee Compositions |
|--------------|---|--|
| | <p>area of environmental services, forests, greenspaces, parks, cycling and pedestrian issues.</p> <ul style="list-style-type: none"> • Available as a resource to staff, providing input on matters being pursued to achieve Council’s strategic priorities. • Responsible for ensuring that its business aligns with, and serves to complement, Council’s strategic priorities. <p><u>Standing Committee on Environmental Protection, Water and Waste Management (SCEPWWM):</u></p> <ul style="list-style-type: none"> • Responsible for providing guidance and direction to Council on all issues relating to: <ul style="list-style-type: none"> ○ environmental services; ○ community sustainability; ○ storm water management; ○ solid waste management; ○ utilities/water and wastewater; ○ water pollution control; ○ urban forestry; ○ open spaces • Be responsible directly to Council for those items emanating from any advisory committees or sub-committees that are within the area of responsibility of the SCEPWWM. | <ul style="list-style-type: none"> • SCEPWWM is comprised of members of Council only. |
| Peel Region | <ul style="list-style-type: none"> • Peel does not have a specific public Waste Management Advisory Committee. <p><u>Waste Management Strategic Advisory Committee (WMSAC):</u></p> <ul style="list-style-type: none"> • Provides strategic guidance to Council on the implementation of the Waste Reduction and Resource Recovery Strategy and the Infrastructure Development Plan. | <ul style="list-style-type: none"> • Not Applicable • WMSAC is comprised of members of Council only. |

Appendix 1 – Comparison of Other Municipalities' Waste Management Advisory and/or Standing Committees

| Municipality | Committee Mandates | Committee Compositions |
|---------------------|---|--|
| Simcoe County | <ul style="list-style-type: none"> • Simcoe does not have a specific public Waste Management Advisory Committee. | <ul style="list-style-type: none"> • Not Applicable |
| | <u>Committee of the Whole (COTW):</u> <ul style="list-style-type: none"> • Reports directly to County Council. • Within COTW, there are three (3) business sections: Performance Management, Human Services, and Corporate Services. | <ul style="list-style-type: none"> • COTW is comprised of members of Council only. |
| Toronto | <ul style="list-style-type: none"> • Toronto does not have a specific public Waste Management Advisory Committee. | <ul style="list-style-type: none"> • Not Applicable |
| | <u>Infrastructure and Environment Committee (IEC):</u> <ul style="list-style-type: none"> • Primary focus is on infrastructure and the natural environment • Monitors and makes recommendations on Toronto's infrastructure needs and services, parks and forestry, and the sustainable use of Toronto's environment. | <ul style="list-style-type: none"> • IEC is comprised of members of Council only. |
| Waterloo Region | <ul style="list-style-type: none"> • Waterloo does not have a specific public Waste Management Advisory Committee. | <ul style="list-style-type: none"> • Not Applicable |
| | <u>Planning and Works Committee (PWC):</u> <ul style="list-style-type: none"> • Responsible for reviewing and reporting on all matters relating to planning issues and public works operated by the Region and other functions related to the Region's facilities, which includes residential and industrial waste management. | <ul style="list-style-type: none"> • PWC is comprised of members of Council only. |
| Windsor | <ul style="list-style-type: none"> • Windsor does not have a specific public Waste Management Advisory Committee. | <ul style="list-style-type: none"> • Not Applicable |
| | <u>Environment, Transportation and Public Safety Standing Committee (ETPSSC):</u> <ul style="list-style-type: none"> • Study and report to Council on all matters relating to the following: | <ul style="list-style-type: none"> • ETPSSC is comprised of five (5) members of Council only. |

Appendix 1 – Comparison of Other Municipalities’ Waste Management Advisory and/or Standing Committees

| Municipality | Committee Mandates | Committee Compositions |
|--------------|--|---|
| | <ul style="list-style-type: none"> ○ Long-range capital projects; ○ Policy matters relating to general infrastructure development and design; ○ Environmental policies relating to waste management, waste water services, and other environmental matters; ○ Regional infrastructure matters; ○ Transportation networks including roads, and cycling and walking path systems. | |
| York Region | <ul style="list-style-type: none"> ● York does not have a specific public Waste Management Advisory Committee. | <ul style="list-style-type: none"> ● Not Applicable |
| | <u>Committee of the Whole (COTW):</u> <ul style="list-style-type: none"> ● Receives public input, reviews policies and considers staff reports, then recommends actions to Council. | <ul style="list-style-type: none"> ● COTW is comprised of members of Council only. |

Note:

Some municipalities have citizen committees established for their landfill sites (i.e. Waterloo), parallel to Niagara Region, and for related disposal facilities such EFW (i.e. Durham).

MEMORANDUM

WMPSC-C 33-2019

Subject: Councillor Information Request

Date: Monday, October 28, 2019

To: Waste Management Planning Steering Committee

From: Catherine Habermehl, Director

This memorandum is intended to provide Committee members with an update on the outstanding Councillor Requests from previous meetings.

Waste Management Planning Steering Committee

Meeting Date: August 26, 2019

Minute Item #3.1:

That staff **BE DIRECTED** to meet with Nespresso Canada to consider implementing the Nespresso “Green Bag” pod recycling program in Niagara Region and report back with options in January 2020

Follow-up Action: A conference call between VP Technical Operations, Nespresso Canada and Waste Management staff occurred on September 25, 2019. Further discussions/meetings will occur and a report will be submitted with options to Waste Management Planning Steering Committee for the first scheduled meeting in 2020.

Status: In progress

Meeting Date: August 26, 2019

Minute Item #3.2:

Provide information respecting implementing deposits for recycled plastic bottles.
(Councillor Witteveen)

Follow-up Action: Memorandum WMPSC-C 36-2019 Deposit Return Programs respecting deposit return systems for plastic bottles is included as part of the October 26, 2019 Waste Management Planning Steering Committee meeting package.

Status: Complete

Meeting Date: Feb 25, 2019

Minute Item #8.1: MOTION

That staff **PROVIDE** options that could be included in the negotiated request for proposal (RFP) and terms of reference for the Material Recycling Facility Phase 4 Opportunity Review to allow for the Waste Management Planning Steering Committee to provide comments prior to the RFP being released to market.

Follow-up Action: MNP LLP was awarded 2018-RFP-94 Project Consultant and Transaction Advisory Services for Material Recycling Facility (MRF) Opportunity Review – Phase 4, and is the project consultant engaged to develop the negotiated request for

proposal (NRFP). The options to be included in the NRFP will be submitted to WMPSC for comment prior to release.

Status: In progress

Meeting Date: May 30, 2016

Minute Item #6.6: Provide information outlining options for the Material Recovery Facility pending legislative changes. (WMPSC-C 25-2016) (Councillor Petrowski).

Follow-up Action: An evaluation of opportunities with regard to the Material Recovery Facility (MRF) is in progress as part of Phase 4 of the MRF Opportunity Review, which is being completed through 2018-RFP-94. Clauses in the contract agreement with Niagara Recycling allow for early termination.

Status: In progress

Public Works Committee

Meeting Date: September 10, 2019

Minute Item #7.2

Councillor Insinna requested information respecting the number of days curbside waste collection was not completed given the current collections delays.

Follow-up Action: Memorandum PWC-C 26-2019 Emterra Collection Contract Update provides information on the number of days curbside waste collection was not completed given the current collections delays, and was submitted as part of the October 8, 2019 Public Works Committee package.

Status: Complete

Meeting Date: August 6, 2019

Minute Item #7.2

Councillor Insinna requested information respecting the use of incineration as an option for future waste management.

Follow-up Action: Memorandum WMPSC-C 34-2019 Alternative Waste Management Technologies Update provides an outline as to how Niagara Region will be considering alternative waste management technologies such as energy from waste as a potential future option.

Status: Complete

Budget Review Committee of the Whole

No outstanding waste management related items at this time.

Committee of the Whole

No outstanding waste management related items at this time.

Council

No outstanding waste management related items at this time.

COMPLETED ITEMS

Waste Management Planning Steering Committee

Meeting Date: June 24, 2019

Minute Item #5.1:

Provide information respecting scheduled battery collection from the Niagara Region's comparator municipalities in future reports. (Councillor Diodati)

Minute Item #6.2:

Provide information respecting the breakdown of any forecasted shortfalls and how Niagara compares with municipalities with alternative models such as single stream. (Councillor Witteveen)

Minute Item #7.1: MOTION

That staff **REQUEST** Nespresso to provide a presentation to the Waste Management Planning Steering Committee on their coffee pod recycling program.

Meeting Date: April 29, 2019

Minute Item #6.6:

Provide the costs and revenues for the Material Recycling Facility. (Councillor Fertich)

Meeting Date: Feb 25, 2019

Minute Item #4.1:

That Waste Management staff consult with Economic Development as to how to maximize the potential of the Material Recycling Facility (MRF) and the partnership with Niagara Recycling before proceeding with the Phase 4 Opportunity Review RFP. (Councillor Butters).

Public Works Committee

Meeting Date: April 16, 2019

Minute Item #7.1:

Councillor Nicholson requested staff arrange to have Emterra Environmental attend a future Council Meeting to provide an update respecting Waste Collection.

Meeting Date: March 19, 2019

Meeting Item #5.3:

Include in the request for proposal pricing information related to reducing container limits for Industrial, Commercial and Industrial, and Mixed-use properties, as well as to maintain current container limits (Councillor Nicholson).

Meeting Item #7.1:

That staff **BE DIRECTED** to provide a report respecting the cost to supply Niagara Region residents with recycling and compost bins.

Meeting Date: February 19, 2019

Meeting Item #9.2:

That staff request Emterra present at a future Public Works Committee meeting to provide additional information. (Councillor Foster)

Meeting Date: January 8, 2019

Meeting Item #6.1:

That staff consider closed-top containers as an option for recycling collection. Councillor Ugolini.

Provide information respecting what constitutes the 36% of non-recyclable and non-compostable materials in the garbage bags collected between 2015 and 2016, as described in Report PW 3-2019. Councillor Disero.

Respectfully submitted and signed by

Catherine Habermebl
Director, Waste Management Services

MEMORANDUM

WMPSC-C 34-2019

Subject: Alternative Waste Management Technologies Update

Date: Monday, October 28, 2019

To: Waste Management Planning Steering Committee

From: Brad Whitelaw, Program Manager, Policy and Planning

As per PW 41-2015 and the May 30, 2016 Waste Management Planning Steering Committee (WMPSC) meeting, this memorandum is intended to provide Committee members with an update on alternative waste management technology projects and related initiatives (i.e. Energy From Waste, Mixed Waste Processing, Anaerobic Digestion, etc.). Staff have been monitoring new and emerging alternative disposal technologies along with existing projects for future consideration over the past several years. Staff provide updates on these alternative waste management technologies, at least annually, or when there are significant updates.

This memorandum also responds to the August 6, 2019 Public Works Committee Councillor Information Request, which asked for information respecting the use of incineration as an option for future waste management.

Background

- Originally, as part of the Long Term Waste Management Strategic Plan and then subsequently as a stand-alone project, Council approved completion of a review and issuance of a RFP for a scientific review of alternative diversion and disposal technologies, including analysis on viability and sustainability and recommendations for next steps.
- In 2013, an RFP was awarded to HDR Inc. to perform a comparative assessment of alternative waste and biosolid management technologies. The aim of this assessment was to determine which technology or combination of technologies would be viable for implementation in Niagara Region.
- In mid-2014, this project was subsequently deferred for one year due to a number of considerations (see PW 41-2015) and subsequently was terminated by Council and instead will be included as part of a future long-term waste management strategic plan with a comprehensive stakeholder engagement process.
- Niagara Region continues to engage other neighbouring municipalities in discussions related to available capacity at their current/future alternative waste management technology facilities and/or future needs that could be addressed by partnering on alternative technologies.
- Niagara Region continues to participate in the Municipal Mixed Waste Processing (MWP) Working Group, which has the objective to “identify collaboration opportunities

and specific information needs, actions and timelines, in order to determine the feasibility of jointly implementing waste management policies, programs and/or facilities, which includes alternative technology facilities”.

Overview

Provided below is an update on municipal and private alternative waste management technology facilities across Canada, and related Provincial waste reduction legislation, subsequent to what was previously reported in WMPSC-C 29-2018 - Alternative Waste Management Technologies Update, September 17, 2018.

1) Summary of Municipal and Privately-Owned Alternative Waste Technology Facilities across Canada

Provided below is an update on municipal and privately-owned alternative waste technology facilities implemented across Canada, subsequent to what was previously reported.

Table 1 - Municipally-Owned Facilities (owned by a municipality and operated by a third party)

| Municipally-Owned Facilities | | |
|---|----------------------------|--|
| Municipality/ Facility | Type of Technology | Update |
| Durham-York Energy Centre (DYEC) and Covanta | Energy from Waste (EFW) | <ul style="list-style-type: none"> DYEC’s maximum waste thermal treatment rate is currently set at 140,000 tonnes per year (tpy). The nominal electricity generation rate is 17.5 Megawatts and the nominal steam generation rate is approximately 67,200 kilograms per hour. In June 2019, the Regions of Durham and York began the Environmental Screening Process to increase the amount of waste processed at the DYEC by 20,000 tpy, for a total of 160,000 tpy. Total cost to construct the DYEC was \$295 million. In 2018, DYEC received 140,780 tonnes of waste. Covanta’s 2018 estimated operating fee was \$16.2 million. There were additional non-operating costs of \$2.2 million. In 2018, the estimated electricity revenue generation was \$8.7 million, and revenue from ferrous and non-ferrous metals was approximately \$0.5 million. In 2018, the net annual operating cost was approximately \$9.2 million. |

| Municipally-Owned Facilities | | |
|---|---------------------------------------|---|
| Municipality/ Facility | Type of Technology | Update |
| | | <ul style="list-style-type: none"> • In 2018, the DYEC operated in full compliance with its Environmental Compliance Approval, except for one event. |
| Metro Vancouver Waste-to-Energy Facility (WTEF) and Covanta | Energy from Waste | <ul style="list-style-type: none"> • Metro Vancouver owns the WTEF and Covanta operates it on their behalf, under a long term operations and maintenance contract. • The tonnage of Mixed Solid Waste (MSW) processed at the WTEF has decreased following the success of Metro Vancouver's organics diversion program. • Since the organics ban was introduced on January 1, 2015, the MSW tonnage processed at the WTEF has decreased from approximately 280,000 tpy to approximately 253,000 tpy in 2018. • With this decrease of approximately 27,000 tpy of organic food waste, there was a resulting 6-7% increase in the waste heating value of the MSW. • In September 2018, Metro Vancouver commissioned a non-ferrous recovery project. This project will also provide secondary ferrous metal recovery. • In 2018, the WTEF recovered and sold approximately 5,700 tonnes of ferrous and non-ferrous metals. • In 2018, the total operating cost, including debt charges, for the WTEF was approximately \$20.5 million. 2018 disposal costs were \$1.6 million. • In 2018, Metro Vancouver earned approximately \$5.6 million from the sale of electricity and \$0.2 million from the sale of recycled metal to a company that produces reinforcing steel. • In 2018, the net cost to operate the WTEF was \$58.16/tonne. |
| City of Halifax Otter Lake Waste Management Facility | Mechanical Biological Treatment (MBT) | <ul style="list-style-type: none"> • From April 2018 to March 2019, the Otter Lake facility received a total of 45,832 tonnes of residential waste, of which 40,744 tonnes were landfilled. • Total operating costs for the Otter Lake MBT facility during this period were approximately \$6.0 million. |

| Municipally-Owned Facilities | | |
|--|-----------------------------|--|
| Municipality/ Facility | Type of Technology | Update |
| City of Toronto Dufferin Biogas Utilization Project | Anaerobic Digestion (AD) | <ul style="list-style-type: none"> • Toronto, in partnership with Enbridge Gas Distribution Inc., began installation of new equipment at Dufferin Solid Waste Management Facility in late 2018. • This new equipment, known as a Bio-methane Upgrading System, will allow the City and Enbridge to turn the raw biogas produced from processing Green Bin organics into Renewable Natural Gas (RNG). • The Dufferin Facility will process 55,000 tonnes of organics per year. • The total project cost for the Dufferin Biogas Utilization Project is estimated to be \$16.3 million. • The City has also identified other potential RNG production opportunities for development consideration at two of its landfill sites (Green Lane and Keele Valley) and its other AD facility (Disco). • The City estimates that development of all four sites offers the potential to produce 65 million cubic metres of RNG per year. • These kinds of projects are targeted to assist the City in moving forward on its initiatives to encourage a circular economy, however specific timelines for completion of these developments have not yet been defined. |

Table 2 – Summary of Current and Proposed P3 Facilities (owned and operated by private company but agreements with municipalities to supply waste)

| Current P3 Facilities | | |
|---|---|---|
| Municipality/ Facility | Type of Technology | Update |
| City of Edmonton and Enerkem Alberta's Waste-to-Biofuel and Chemical Facility | Gasification, Cleaning and Conditioning of Syngas, Catalytic Synthesis and Product Purification | <ul style="list-style-type: none"> • Enerkem began construction of its ethanol plant in 2016, and initiated ethanol production in 2017. • Enerkem has been producing and selling bio-methanol since 2016, and expanded production to include cellulosic ethanol with the installation of its methanol-to-ethanol conversion unit. • Enerkem entered into a 25-year supply agreement with the City of Edmonton to receive 100,000 tonnes of Refuse Derived Fuel (RDF) annually. • The annual cost to operate the Enerkem facility is proprietary information. |
| Proposed P3 Facilities | | |
| Municipality | Type of Technology | Update |
| Durham Region | Mixed Waste Processing and Anaerobic Digestion (AD) | <ul style="list-style-type: none"> • In June 2019, Durham Region obtained Council approval to proceed with construction of a mixed-waste transfer and pre-sort facility and an AD organics management processing facility (utilizing a wet technology), under a design, build, operate and maintain (DBOM) public-private partnership contract. • The pre-sort facility would accept all residential residual garbage and separate out any organics and recyclables from the residual garbage. • The recyclables would be sent to market, while the organics would be processed at the AD facility, along with Green Bin organics, and converted into energy and fertilizer. • The AD facility is anticipated to divert approximately 30,000 tonnes of organics from the DYEC, annually. • The remaining residue garbage would be processed at the DYEC. • The upfront capital costs to build both facilities are estimated to be approximately \$164 million, including land (\$42.3M – Pre-sort facility; \$116.3M – AD facility; \$4.8M – Land). |

| | | |
|--|--|--|
| | | <ul style="list-style-type: none"> • The estimated operating and maintenance costs for both facilities during the first year of operations would be \$19.3 million. • Costs could increase by an additional \$15 million to \$26 million per year for debenture financing costs to finance the initial capital investment. The estimated debt financing costs would be \$20.5 million. • Durham Region anticipates issuing an RFP for the DBOM of both facilities in the next year. |
|--|--|--|

Table 3 – Summary of Privately-Owned or Proposed Private Facilities

| Privately-Owned Facilities | | |
|--|---------------------------|--|
| Facility | Type of Technology | Update |
| Grimsby Energy Inc. (GEI) Bio Digester | Biogas | <ul style="list-style-type: none"> • The GEI biodigester was designed to receive approximately 24,000 tonnes annually of organics (i.e. pork and chicken renderings, grape pumice, oils and grease, dog food, vegetables and fruits, etc.) from local farmers and businesses. • During its first year of operation (August 2017 to August 2018), the GEI facility processed approximately 17,000 tonnes of organics. • The \$12.3 million facility operated at approximately 50% capacity, and was hampered by weather-related issues, and an inability to dispose of the digestate by-product, due to Provincial regulatory changes. • In February 2019, Grimsby Town Council voted in favour of providing an additional \$400,000 in funding, split into two amounts. The first amount was in the form of a \$100,000 demand loan from the Town, followed by a \$300,000 addition to the Corporation's existing \$4.5 million bank loan guaranteed by the Town. The former of these two amounts was to cover GEI's current overdraft balance, freeing up those funds for use at the biodigester site. • In February 2019, GEI retained Deloitte Canada to oversee the sale of this facility. The facility would continue to operate until it was sold. • In September 2019, the facility was sold to White Owl Limited. The sale will result in proceeds |

| | | |
|---|------------------------------|--|
| | | sufficient to retire all bank debt obligations associated with previous losses, all property taxes owing, as well as the balance of a Promissory Note and interest due to the Town of Grimsby, accounts payable owed to suppliers, and other indebtedness of the company. |
| Canada Fibers Ltd. (CFL) Dongara Facility, Woodbridge, ON | Mixed Waste Processing (MWP) | <ul style="list-style-type: none"> Over the past few years, CFL and select municipal partners conducted multiple pilot projects at its Dongara Facility to explore the recovery and diversion of highly contaminated single stream materials from multi-residential dwellings and Grey Box materials (i.e. cardboard and newsprint). CFL staff reported that through these pilots, it was determined that MWP was an effective method for the recovery of valuable recyclable and digester-ready organic materials originating from multi-residential dwellings, but can also supplement the recovery of organics originating from single family homes. CFL is currently exploring the feasibility of recovering and converting non-recyclable plastics into an engineered alternative fuel, at its Dongara Facility. |
| Proposed Privately-Owned Facilities | | |
| Facility | Type of Technology | Update |
| AmaLaTerra Inc. and City of Hamilton | Steam Reformation | <ul style="list-style-type: none"> In February 2019, AmaLaTerra approached City of Hamilton Council about utilizing its proposed steam reformation technology to vaporize any sort of waste, including plastic and tires. According to AmaLaTerra's proposal to the City, Blue Box materials would be placed inside sealed containers and heated from the outside until they are vaporized, producing very little emissions in the process. According to AmaLaTerra, any emissions produced from the process would be well below the Provincial emissions levels. They would be half of green hydrogen, as well as methane and carbons that could be used to produce electricity. City of Hamilton Council voted down AmaLaTerra's proposal in February 2019. |

| | | |
|--|--|---|
| Southern Alberta Energy from Waste Association (SAEWA) | TBD – Commercially demonstrated technology | <ul style="list-style-type: none"> Established in 2009, the non-profit SAEWA is a coalition of 66 municipal entities and waste management jurisdictions in southern Alberta with the mission to research and implement energy recovery from non-recyclable waste materials in order to reduce long-term reliance on landfills. In February 2019, SAEWA announced they will be conducting in-depth assessments to identify a list of potential sites suitable for an Energy-for-Waste facility after being awarded \$400,000 funding from Alberta's Community Partnership program grant. |
|--|--|---|

2) Municipal Mixed Waste Processing (MWP) Working Group:

The Municipal MWP Working Group, which Niagara Region is currently a member of, meets annually to discuss and share information on various MWP initiatives. Provided below is an update on the municipal members' current MWP initiatives beyond that included in the tables above:

i) **London:**

- London's Waste to Resources Innovation Centre (WRIC) currently operates using four existing locations:
 1. Materials Recovery Facility (including an approved area for recovery/waste management demonstration projects)
 2. City Hall
 3. Institute for Chemicals and Fuels from Alternative Resources (research institute within Faculty of Engineering at Western University)
 4. Western University
- The WRIC currently has activities in five main areas:
 1. Research & Development
 2. Training, Testing & Auditing
 3. Resource & Waste Management Knowledge Exchange
 4. Technology Demonstrations
 5. Outreach & Engagement
- In 2019, the WRIC, which includes MWP as part of its discussion and research, was awarded a five-year, \$3 million Natural Sciences and Engineering Research Council of Canada grant with Western University and its nine other industry partners. The focus of this grant will be on projects related to the thermochemical conversion of biomass and waste to bioindustrial resources.

ii) **Oxford County:**

- In June 2018, Oxford County Council endorsed Enhanced Material Recovery and Biological Treatment as the recommended Waste Recovery and Reduction Technology (WRRT) approach.
- This is the next phase for advancing Oxford County towards Zero Waste, with the ultimate goal of diverting 90% of waste currently landfilled by 2025 and extending the lifespan of the County's landfill site to 2100.
- Staff reported to Council on June 12, 2019, seeking their endorsement of the preferred site selection, which was required in order to proceed with next steps – Value for Money analysis to validate preferred procurement option for Council's subsequent endorsement. However, the motion at June 12, 2019 meeting was defeated and the project was put on hold until staff received further direction from Council.
- Subsequent to the June 12, 2019 Council meeting, the WRRT project was cancelled altogether by Council.
- Council endorsement of the preferred WRRT sites and procurement option was necessary to inform the planned procurement phase of the WRRT project, including vendor prequalification and RFP to short-list of vendors.

iii) **Peel Region:**

- Peel Region plans on issuing an RFP in September 2019 for an AD facility to process its Green Bin organics.
- Peel Region was approached by 3Wayste at the end of March 2019, who proposed to build a MWP facility, which they claimed could replace the AD facility and source-separated organics (SSO) program, and achieve equivalent levels of diversion, at a lower cost.
- Peel Region staff completed an assessment of 3Wayste's technology and compared the diversion potential to the Region's approach, which includes both SSO to be processed at their AD Facility, supplemented by MWP of garbage, as well as other implications (i.e. quality and markets for outputs such as compost and the requirement to comply with the province's Food and Organic Waste Policy Statement).
- The results of this assessment were presented to senior management, who were in agreement that Peel Region should maintain its current waste diversion plans.

iv) **Simcoe County:**

- Simcoe County has no plans, at this point, to pursue MWP technology. Instead, the County will be keeping abreast of developments in the MWP field.
- The County is pursuing the development of its waste management facility (ERRC Environmental Resource Recovery Centre), which has two major

components: an Organics Processing Facility, and a Materials Management Facility or waste transfer facility for garbage and recycling.

- The County has selected a site and are currently pursuing the necessary Official Plan and zoning designations.
- v) **Toronto:**
- In September 2018, HDR Corporation was selected to undertake a comprehensive Mixed Waste Processing with Organics Recovery (MWPwOR) Study for the City of Toronto, at a cost of approximately \$1 million.
 - The MWPwOR Study is expected to be completed by December 31, 2020.
- vi) **Waterloo Region:**
- Waterloo Region continues to monitor the activities of larger municipalities with respect to alternative technology initiatives, at this time.
- vii) **York Region:**
- Through a 2017 technology study, York Region identified anaerobic digestion as the preferred technology for managing its organic waste.
 - In 2019, staff are developing an implementation plan to secure the capacity needed to meet long term processing needs and emission reduction goals.

3) Provincial Waste Reduction Legislation:

Provincial waste reduction legislation may impact the amount of tonnage to be directed to alternative technology facilities, and will require additional consideration by Regional Committees/Council in terms of services and facilities that Niagara will continue to operate under a producer responsibility framework.

- i) **Provincial “Made-in-Ontario Environment Plan” (Plan) Update:**
- On August 15, 2019, Minister Yurek issued a direction letter requiring Stewardship Ontario (SO) to begin transition of the Blue Box Program to full producer responsibility, and submit a plan to Resource Productivity Recovery Authority (RPRA) by June 30, 2020.
 - RPRA will oversee SO’s development and implementation of the plan, along with providing approval of the plan by no later than December 31, 2020. It is expected that the first group of municipalities or First Nations will transfer responsibility of programs to producers starting in January 2023, with producers fully responsible for Blue Box service, province-wide, by 2025.
 - Regulations have yet to be developed, which will provide the details needed by all stakeholders. It is anticipated that final regulations will be complete by early 2021.
 - Additional details on the Blue Box transition to full producer responsibility are available in WMPSC-C 32-2019 - Modernizing Blue Box Program.

- The Plan also contained several references, which support alternative waste technologies, including:
 - Investigating options to recover resources from waste, such as chemical recycling or thermal treatment, which have an important role – along with reduction, reuse and recycling – in ensuring that the valuable resources in waste do not end up in landfills. The Plan indicates that incineration will not be counted as diversion.
 - Encouraging increased recycling and new projects or technologies that recover the value of waste, such as hard to recycle materials.

ii) **Provincial Food and Organic Waste Framework Update:**

- The Ministry of the Environment, Conservation and Parks (MECP), formerly the Ministry of the Environment and Climate Change (MOECC), released the Food and Organic Waste Framework on April 30, 2018. The Food and Organic Waste Framework consisted of two complementary components:
 1. **Food and Organic Waste Action Plan**, which outlines strategic commitments to be taken by the province to address food and organic waste.
 2. **Food and Organic Waste Policy Statement**, under the Resource Recovery and Circular Economy Act, 2016 (RRCEA), which provides direction to the province, municipalities, producers, Industrial, Commercial and Institutional sector (e.g. retailers, manufacturers, hospitals, schools), the waste management sector and others to further the provincial interest in waste reduction and resource recovery as it relates to food and organic waste.
- A Policy Statement was issued by the MOECC, pursuant to Section 11 of the RRCEA, on April 30, 2018 and came into effect, at that time.
- In June 2019, the MECP formed an Organics Stakeholder Committee to delve more deeply into the technical issues on the management of food and organic waste and to develop recommendations that can be implemented.
- The Organics Stakeholder Committee was organized into three technical working groups, which met between June and August, to obtain input on the following:
 1. **Compostable Products and Packaging** - Recommendations on a path forward for compostable products and packaging in Ontario
 2. **Food and Organic Waste** - Recommendations on priority areas for guidance to support implementation of the Food and Organic Waste Policy Statement
 3. **Modernization of Organic Waste Permissions** – Identification of regulatory barriers preventing innovative solutions to the management of food and organic waste.
- Niagara Region staff participated in the Compostable Products and Packaging technical working group.

- The Organics Stakeholder Committee will be reporting their findings to the MECP in the fall of 2019, for further consideration.

Summary/Conclusion

Based on a review of the Municipal MWP Working Group members, none are considering EFW for various reasons, including:

- A decision was made to monitor EFW, but not implement at this time i.e. Waterloo;
- The EFW technology was not included as part of their long-term waste strategy i.e. London is undertaking research project in thermochemical conversion and Toronto is undertaking a MWPwOR study;
- The decision was made to focus on organics (AD) diversion, which in the case of Durham, Oxford, Simcoe and Peel, is being supplemented by MWP or biological treatment and in the case of York Region, no further plans to expand the existing capacity at their DYEC is being considered.

Niagara Region will be assessing EFW, as part of its strategic plan. It is anticipated that the development of the RFP for completion of this plan will be initiated later in 2019.

Respectfully submitted and signed by

Brad Whitelaw, BA, CIM, P.Mgr., CAPM
Program Manager, Policy and Planning
Waste Management Services

MEMORANDUM

WMPSC-C 36-2019

Subject: Deposit Return Programs

Date: Monday, October 28, 2019

To: Waste Management Planning Steering Committee

From: Susan McPetrie, Waste Management Services Advisor

This memorandum provides information on deposit return programs for beverage containers in reference to the Councillor Information Request from the August 26, 2019 meeting of the Waste Management Planning Steering Committee, Minute Item #3.2.

Ontario's Deposit Return Program

Most provinces and territories in Canada have some form of deposit return program for plastic bottles (Appendix A). Currently, Ontario only has a deposit return program for alcohol beverage containers. Expanding on the Beer Store's long-running deposit program for beer containers, the Provincial government introduced legislation in 2007 to place a deposit on all alcohol beverage containers. For 2018, the program reported a total recovery rate of 81%; however, for PET plastic containers the recovery rate was only 55%.

Historically, there was also a deposit return program for refillable glass non-alcohol beverage containers in Ontario. However, in the mid-to-late 1970s there was a move in the beverage industry to aluminum cans and plastic bottles, which led to a substantial decrease in the percentage of refillable glass containers in use by the 1980s. To address the growing waste problem created by this shift, the Ontario government attempted to legislate against the use of non-refillable bottles, but was met with significant opposition by beverage brand owners. A compromise was negotiated, and the Province implemented a voluntary target of 40% refillable containers and a requirement that the remaining containers meet a 50% recycling rate by 1988. To achieve this target, the Ontario Soft Drink Association established Ontario Multi-Material Recycling Incorporated (OMMRI), tasking the organization with funding and developing the curbside recycling program in Ontario. In 1987, OMMRI pledged \$20 million over 4 years to fund the Blue Box program, which was matched by the Province. The growing success of curbside recycling marked the end of Ontario's deposit return system for non-alcohol beverage containers, with use of refillable containers declining to 3% by the end of the 1980s.

Transition to Extended Producer Responsibility

Under Ontario's current Blue Box Program, companies that introduce packaging and printer paper into Ontario's consumer marketplace contribute 50% of the funding for Ontario's municipal Blue Box Programs. These companies are referred to as

"stewards". In 2016, the Province passed the Resource Recovery and Circular Economy Act, creating a legislative framework for an extended producer responsibility (EPR) model that makes stewards accountable for recovering and reducing waste associated with their products and packaging. Planning for transition to this model is currently underway and an approved plan is expected no later than December 31, 2020 (WMPSC-C 32-2019). When operational management of the Blue Box Program is handed over to the producers, it is likely that program alternatives will be considered. A deposit return program may be one option pursued under this framework.

British Columbia's Deposit Return Program

British Columbia provides an example of a deposit return program operating under an EPR framework. The province-wide beverage container deposit return program in British Columbia began with the enactment of the Litter Act in 1970. In 1997, it was expanded from soft drink and beer containers only, to include all ready-to-serve beverages sold, excluding milk and milk substitutes. In 2004, the Recycling Regulation consolidated all British Columbia product stewardship regulations, including the Beverage Container Stewardship Program, into a single regulation. This regulation established a minimum goal of a 75% recovery rate and required that redeemed containers be either refilled or recycled. The Recycling Regulation was amended in 2011 to make stewards responsible for the costs of collecting, sorting and recycling their products. The stewards are represented by two agencies, Encorp Pacific Canada (Encorp) for non-alcohol, wine, spirits and other beverages and Brewers Distributors Limited (BDL) for coolers, beer and cider. Encorp's collection network includes 173 independent depots and over 500 retail outlets. As of June 2015, BDL provides for container returns at 113,521 locations.

All beverage containers in British Columbia carry a refundable deposit of 5, 10 or 20 cents based on size and beverage type. The full deposit amount is returned to the consumer when the container is returned to a depot or participating retail store. The returned bottles are collected by over 30 contracted transport companies and taken to more than 17 central processing sites across British Columbia, where they are compacted for shipment. Processors receive bags of mixed containers and prepare them for the appropriate recycling market by sorting, crushing, and baling the glass, aluminum, plastic, and other materials.

In 2016, unredeemed deposits represented 19% of funding for the program and an additional 17% of funds came from the sale of collected materials. The remaining funding is collected through a non-refundable Container Recycling Fee (CRF) charged to the consumer at the time of purchase. Implemented by the beverage industry, CRFs vary depending on the value of the material and the collection rate for a particular container. Current CRFs, range from no fee for aluminum cans to 17 cents for glass bottles over 1 litre.

British Columbia's provincial recycling rates for all beverage containers with deposits reached 84% in 2014. For comparison, Ontario's recycling rate for non-deposit containers in 2014 was 51%. Based on Encorp's annual reports, recovery rates have met or exceeded the 75% regulatory target consistently over the past decade.

Program Considerations

Studies of deposit return systems suggest that the responsibility for a successful program lies primarily with producers. A report published by research and consulting firm Eunomia in 2019, which reviewed international deposit systems, found that programs that consistently achieve high recovery rates at a low cost share similar characteristics, including being managed and paid for by industry. A legislative framework that establishes targets, mechanisms for continual improvement and responsibilities for oversight and enforcement also contributes to effective operation of deposit return programs. Additionally, achieving high recovery rates is facilitated by ensuring that redemption infrastructure is accessible and convenient for all residents. Finally, implementation of a comprehensive program with a broad scope creates higher tonnages and drives economies of scale. This also reduces customer confusion and the ability of free riders to avoid deposits.

Next Steps

With the transition to the EPR model for the Blue Box Program, producers may consider a province-wide deposit return program as part of a comprehensive recycling system. Until more information on the transition plan is released, it is recommended that Niagara Region wait for more details and provide feedback when given the opportunity, to ensure that the quality, accessibility and convenience of Niagara's recycling programs are maintained or improved throughout the transition process.

Respectfully submitted and signed by

Susan McPetrie
Waste Management Services Advisor

Appendices

Appendix A – Canadian Deposit Return Programs by Province

Appendix A - Canadian Deposit Return Programs by Province

| Province | Legislation | Date | Beverage Containers Covered | Amount of Deposit | Handling Fee for Consumers | Reclamation System | Recycling Rates for Non-Refillable Containers (2014) |
|-------------------------|--|-------------------------------------|--|---|------------------------------------|---|--|
| Alberta | Beverage Container Recycling Regulation | 1997 | All ready-to-serve beverage containers | Up to 1L: 10¢ Over 1L: 25 ¢ | Fees range from 1.67 to 12 ¢ | Return to depot. Beer containers are collected through licensees, liquor stores and beer stores. | 83% |
| British Columbia | Recycling Regulation Schedule 1: Beverage Container Product Category | Original 1970, current version 2004 | All ready-to-serve beverage containers, except milk and milk substitutes | Non-alcohol up to 1L: 5¢ Non-alcohol over 1L: 20 ¢ Alcohol up to 1L: 10¢ Alcohol over 1L: 20 ¢ | Varies by container type and size. | Return to retail or depots. | 84% |

| Province | Legislation | Date | Beverage Containers Covered | Amount of Deposit | Handling Fee for Consumers | Reclamation System | Recycling Rates for Non-Refillable Containers (2014) |
|----------------------|---|------|--|---|--|---|--|
| Manitoba | Manitoba Packaging and Printed Paper Stewardship Regulation | 2008 | Beer containers | Beer cans and bottles up to 1L: 10¢ Beer cans and bottles over 1L: 20¢ | 2¢ | Return to retail for beer only. | 83% |
| New Brunswick | Beverage Containers Act | 1992 | All beverages containers except milk and cider | Non- alcohol, non –refillable containers 10¢ (5¢ refund) Alcohol up to 500ml: 10¢ Alcohol over 500ml: 20¢ | Refillable beer containers 2.89¢ All other empty beverage 4.06¢ | Return to licensed redemption centres | 76% |
| Newfound-land | The Newfound-land and Labrador Used Beverage Container | 1997 | All beverage containers except milk | Non-alcohol: 8¢ (5¢ refund) Alcohol: 20¢ (10¢ refund) | 4.25¢ | Return to 37 province-wide depots and 50 satellite depots | 71% |

| Province | Legislation | Date | Beverage Containers Covered | Amount of Deposit | Handling Fee for Consumers | Reclamation System | Recycling Rates for Non-Refillable Containers (2014) |
|------------------------------|---|------|---|---|------------------------------------|---|--|
| | Recycling Program | | | | | | |
| Northwest Territories | Beverage Container Regulation | 2005 | For all ready-to-drink beverages except milk: bottle, can, plastic cup or paperboard carton or a package made of metal, plastic, paper, glass or other material, or a combination of them | Up to 1L: 10¢ Over 1L: 25¢ | Up to 1L: 5-13¢ Over 1L: 10-13¢ | Return to government or community depot | 89% |
| Nova Scotia | Beverage Container Deposit Refund Program | 1996 | All beverage containers except milk | Non-alcohol up to 5L: 10¢ deposit (5¢ refund) Alcohol up to 500ml: 10¢ | 2.75¢ | Return to depot | 85% |

| Province | Legislation | Date | Beverage Containers Covered | Amount of Deposit | Handling Fee for Consumers | Reclamation System | Recycling Rates for Non-Refillable Containers (2014) |
|-----------------------------|--------------------------------|------|-----------------------------------|--|----------------------------|-----------------------------|--|
| | | | | deposit; 5¢ refund Alcohol over 500ml: 20¢ deposit; 10¢ refund | | | |
| Ontario | Ontario Deposit Return Program | 2007 | All alcoholic beverage containers | Glass bottles, plastic bottles (PET), Tetra Pak containers, bag-in-box: -up to 630ml: 10¢ -over 630 ml: 20¢ Aluminum and steel containers: -up to 1L: 10¢ -over 1L: 20¢ | n/a | Return to Beer Store only | Alcohol: 89% Non-Alcohol: 51% |
| Prince Edward Island | Prince Edward Island | 1996 | All ready-to-drink beverage | Non-alcoholic: 10¢ (5¢ refund) | n/a | Return to licensed beverage | 82% |

| Province | Legislation | Date | Beverage Containers Covered | Amount of Deposit | Handling Fee for Consumers | Reclamation System | Recycling Rates for Non-Refillable Containers (2014) |
|----------|--------------------------------------|------|---|--|----------------------------|--------------------|--|
| | Beverage Container Management System | | containers except milk and milk substitutes | <p>Wine and Spirits up to 500ml: 10¢ (5¢ refund)</p> <p>Wine and Spirits 501ml - 5L: 20¢ (10¢ refund)</p> <p>Beer cans and bottles up to 500ml: 10¢ (5¢ refund)</p> <p>Beer cans and bottles 501ml - 5L: 20¢</p> <p>Deposits on refillable domestic beer are</p> | | container depot | |

| Province | Legislation | Date | Beverage Containers Covered | Amount of Deposit | Handling Fee for Consumers | Reclamation System | Recycling Rates for Non-Refillable Containers (2014) |
|---------------------|--|------|-------------------------------------|--|----------------------------|---|--|
| | | | | completely refundable (\$1.20 per dozen) | | | |
| Quebec | Agreement relating to the consignment recovery and recycling of non-refillable soft drink containers | 1984 | Soft drink and beer containers | Soft drink containers up to 450ml : 5¢ Soft drink containers over 450ml : 20¢ Non-refillable beer cans up to 450ml : 5¢ Non-refillable beer cans over 450ml : 20¢ | n/a | Return to retail | Soft drink and beer: 78% |
| Saskatchewan | Beverage Container Collection and | 1973 | All beverage containers except milk | Aluminum/tin cans under 1L: 10¢ | Aluminum/tin cans: 7¢ | Not-for-profit SARCAN redemption depots | 87% |

| Province | Legislation | Date | Beverage Containers Covered | Amount of Deposit | Handling Fee for Consumers | Reclamation System | Recycling Rates for Non-Refillable Containers (2014) |
|----------|-------------------|------|-----------------------------|--|--|--------------------|--|
| | Recycling Program | | | <p>Aluminum/tin cans 1L & over: 25¢</p> <p>Plastic bottles/jugs up to 1L: 10¢</p> <p>Plastic bottles/jugs 1 L & over: 25¢</p> <p>Cartons and juice boxes (aseptic & polycoat) under 1L: 10¢</p> <p>Cartons and juice boxes (aseptic & polycoat) 1 L & over: 25¢</p> <p>One-way glass bottles up to 300 ml:</p> | <p>Plastic bottles/jugs: 8¢</p> <p>Cartons and juice boxes (aseptic & polycoat): 5¢</p> <p>One-way glass bottles: 9¢</p> <p>Refillable glass beer bottles: n/a</p> | | |

| Province | Legislation | Date | Beverage Containers Covered | Amount of Deposit | Handling Fee for Consumers | Reclamation System | Recycling Rates for Non-Refillable Containers (2014) |
|------------------------|-------------------------------|--------------------|-----------------------------|---|----------------------------|--------------------|--|
| | | | | 10¢, 301 – 999 ml: 20¢; 1L & over: 40¢ Refillable glass beer bottles: 5¢ | | | |
| Yukon Territory | Beverage Container Regulation | 1991, updated 2009 | All beverages | Containers 30 ml to less than 750 ml: 10¢ (5¢ refund) Containers equal or greater than 750 ml: 35¢ (25¢ refund) Milk and milk substitutes over 30 ml: 10¢ (5¢ refund) | n/a | Return to depot | N/A |

| Province | Legislation | Date | Beverage Containers Covered | Amount of Deposit | Handling Fee for Consumers | Reclamation System | Recycling Rates for Non-Refillable Containers (2014) |
|----------|---|------|-----------------------------|-------------------|----------------------------|--------------------|--|
| Nunavut | Does not currently have a deposit program | | | | | | |

MEMORANDUM

WMPSC-C 37-2019

Subject: Anti-Litter Initiatives – Blue Box Lid

Date: Monday, October 28, 2019

To: Waste Management Planning Steering Committee

From: Lucy McGovern, Collection & Diversion Program Manager

The purpose of this memorandum is to advise members of the Waste Management Planning Steering Committee (WMPSC) of initiatives planned to support the reduction of litter observed in Niagara Region communities and to complement the Region's existing Anti-Litter campaign.

Current Initiatives

The last updates on recycling container lids/covers (lids) and options to reduce windblown litter were presented to the Waste Management Planning Steering Committee on June 26, 2017 (WMPSC-C 25-2017) and February 25, 2019 (WMPSC-C 11-2019). These memos outline the Region's deliberation of recycling container lid options, the pros and cons related to these options, and the consideration that was made for recycling carts with lids. The memos also summarize the progression and development of how the Niagara Region has addressed the issue of litter. The Region's current approach to dealing with wind-blown litter includes the following:

- Providing recycling boxes with a larger capacity of 83 litres (approximate increase of 30%) to minimize the overfilling of recyclables
- Allowing clear bags and containers with a lid that is clearly marked 'Recycling' as an alternative recycling container
- Advising residents that they are able to purchase and use their own recycling box covers/lids
- Reminding residents that there are no limits to the quantity of recyclables that they are allowed to place at the curbside and advising them to consider holding on to their recycling for set-out the following week when conditions are more favourable (i.e. not windy).
- Using social marketing and outreach initiatives to encourage good recycling box set-out practices and anti-litter campaigns

Anti-Litter Campaign

In May 2019, Niagara Region initiated an Anti-Litter awareness campaign which included targeted public space advertising in litter hot spots (i.e. bus shelters or waste

containers), web promotion, and social media posts and advertisement (see WMPSC-C 19-2019). As part of this campaign, municipal representation was sought to initiate a working group to tackle the problem of litter in Niagara. Next steps include the development of this working group and an expansion of the Anti-Litter campaign in 2020 where the working group will connect with local community clean up groups.

New Initiative

During the first week of November 2019, Region staff will distribute one blue recycling box and one locally sourced, vented, plastic recycling box lid, to a total of 350 households in Lincoln and residential student areas in Thorold (see Appendix A for a photo of the recycling box and vented lid). These zones were selected based on resident and Councillor comments and concerns in these known problem litter areas (see Appendix B for a list of eligible household addresses).

A promotional card will accompany each blue recycling box and lid to promote the use of the provided tools to help reduce litter on their curbside recycling collection day. Niagara's recycling program is a dual stream program which collects recycling from the curbside from blue boxes (containers and rigid plastic packaging), and from grey boxes (paper, cardboard and bundled plastic bags). The promotional card will encourage residents to place the blue recycling box with lid on top of the grey recycling box at the curb on their collection day to reduce the potential of litter from both boxes. Additional tips to encourage the reduction of litter will also be provided.

To solicit feedback from residents in the test areas on their experience with the recycling box and lid, the promotional card will request user participation in a short online survey. The survey will open two weeks after residents receive their recycling box and lid, and remain open for a period of two weeks. An incentive prize of a \$100 VISA gift card will be offered to encourage residents to participate in the survey. A call-in option to respond to the survey by telephone via the Waste Info-Line will also be provided.

A limited supply of approximately 150 of the vented, rigid, plastic lids will also be available at the Region's Recycling Centre for free distribution to any resident that may enquire about the availability of the lid. Historically, Niagara Region has purchased recycling containers through a competitive process from a number of different manufacturers. The available lids will fit the recycling boxes currently distributed and sold by Niagara Region, however, these lids may not fit the wide variety of recycling boxes in use by all Niagara residents.

The cost of this initiative is expected to be approximately \$3,300, which can be accommodated within the 2019 operating budget, and includes the cost of the program boxes and lids, as well as the design and printing of the promotional cards.

Next Steps

Niagara Region will continue to monitor other municipal programs, such as Durham's blue box lid project, and bring the results of Niagara's survey back to the WMPSC, to discuss the expansion and development of the Anti-Litter working group in the first quarter of 2020.

Respectfully submitted and signed by

Lucy McGovern
Collection & Diversion Program Manager

Appendices

Appendix A – Photo of blue recycling box with lid

Appendix B – Program test zones

Appendix A - Blue Recycling Box with Lid

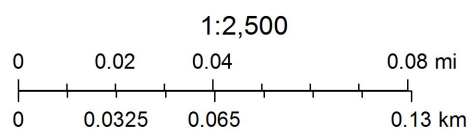


Appendix B - Program Test Zones

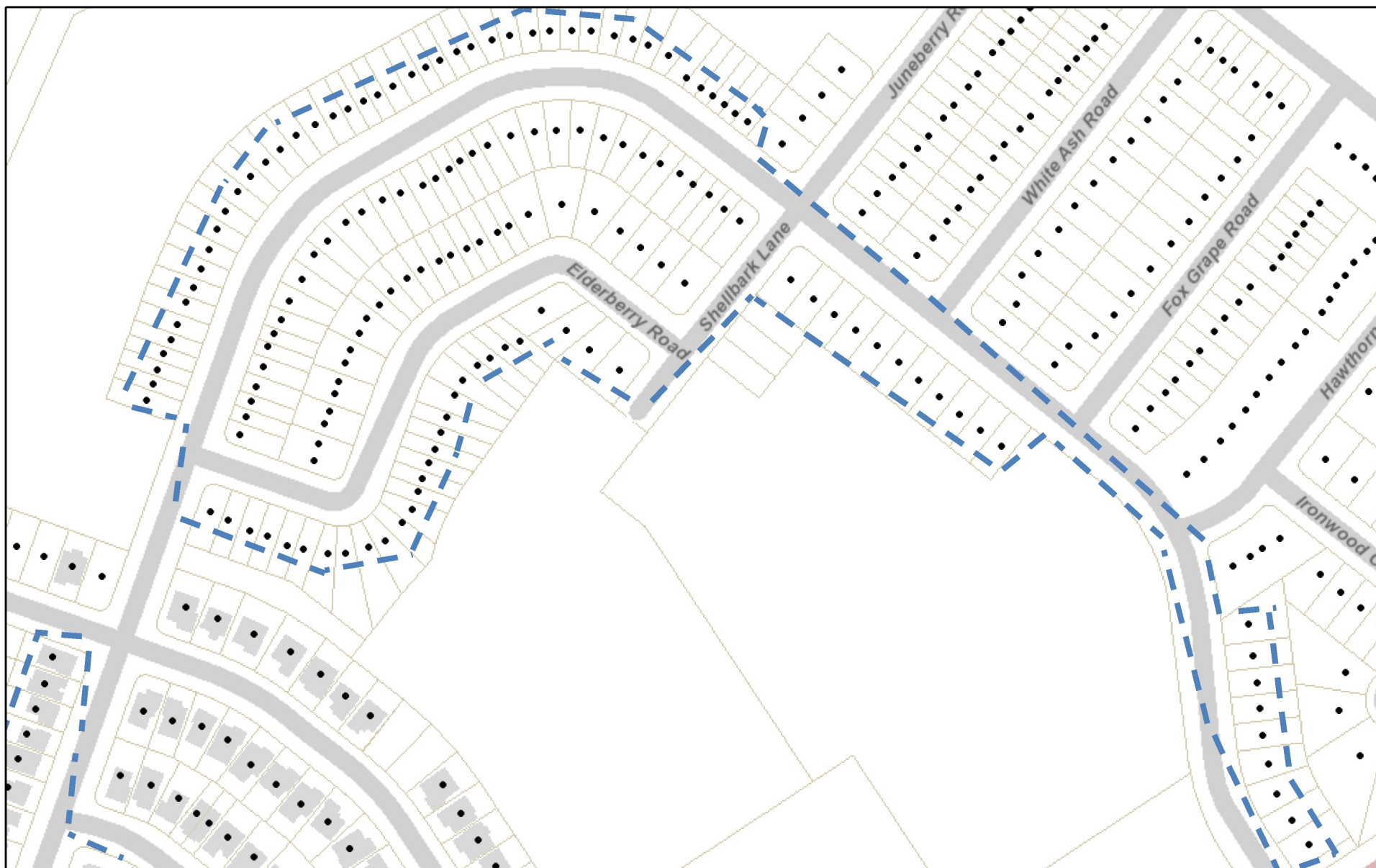
Recycling Box and Lid Distribution - Households in Lincoln



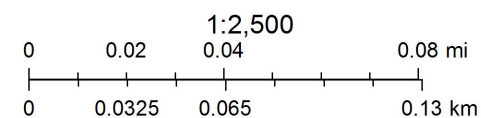
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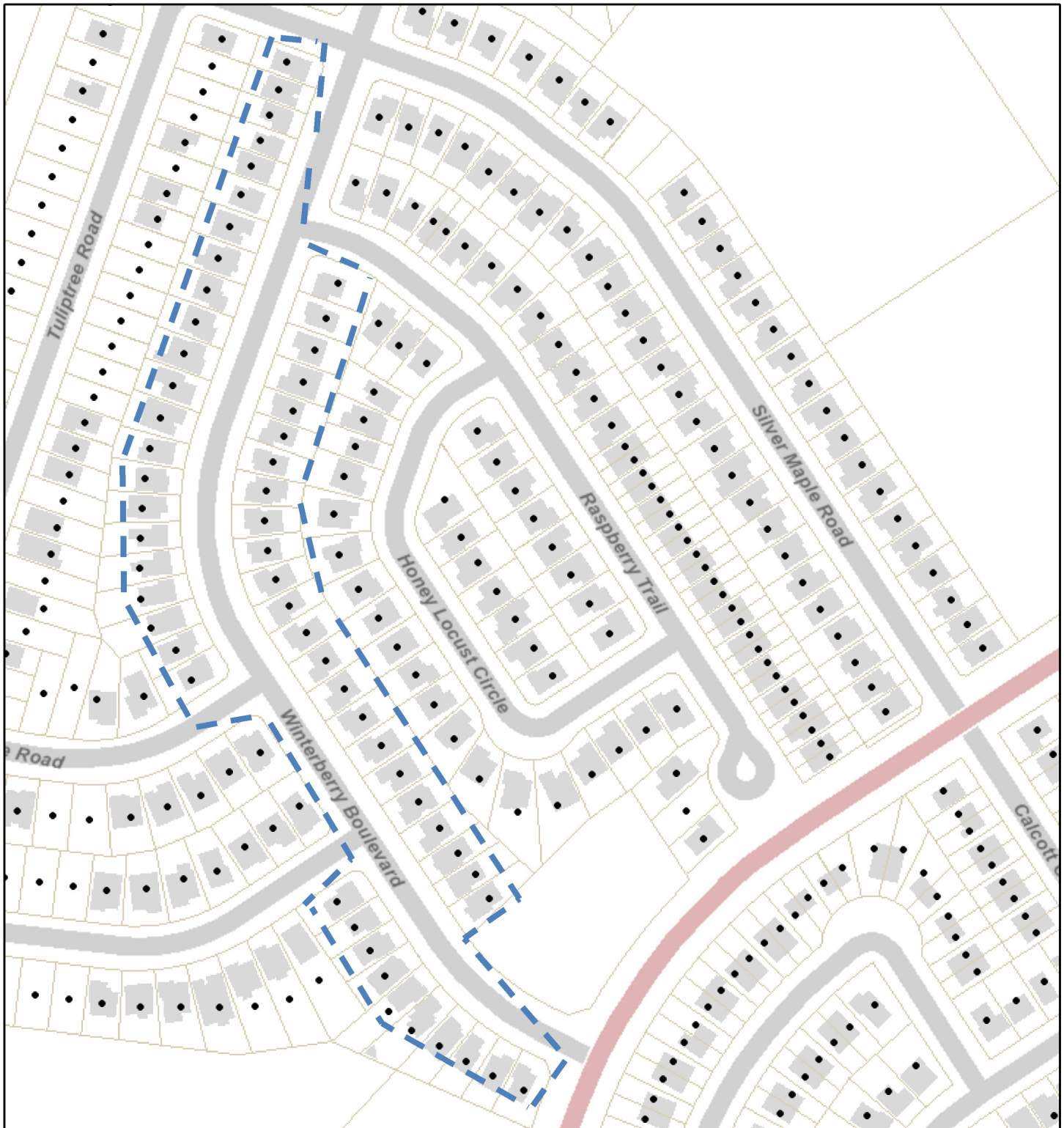
Recycling Box and Lid Distribution - Households in Thorold Map 1 of 3



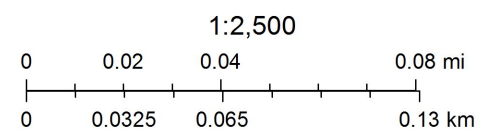
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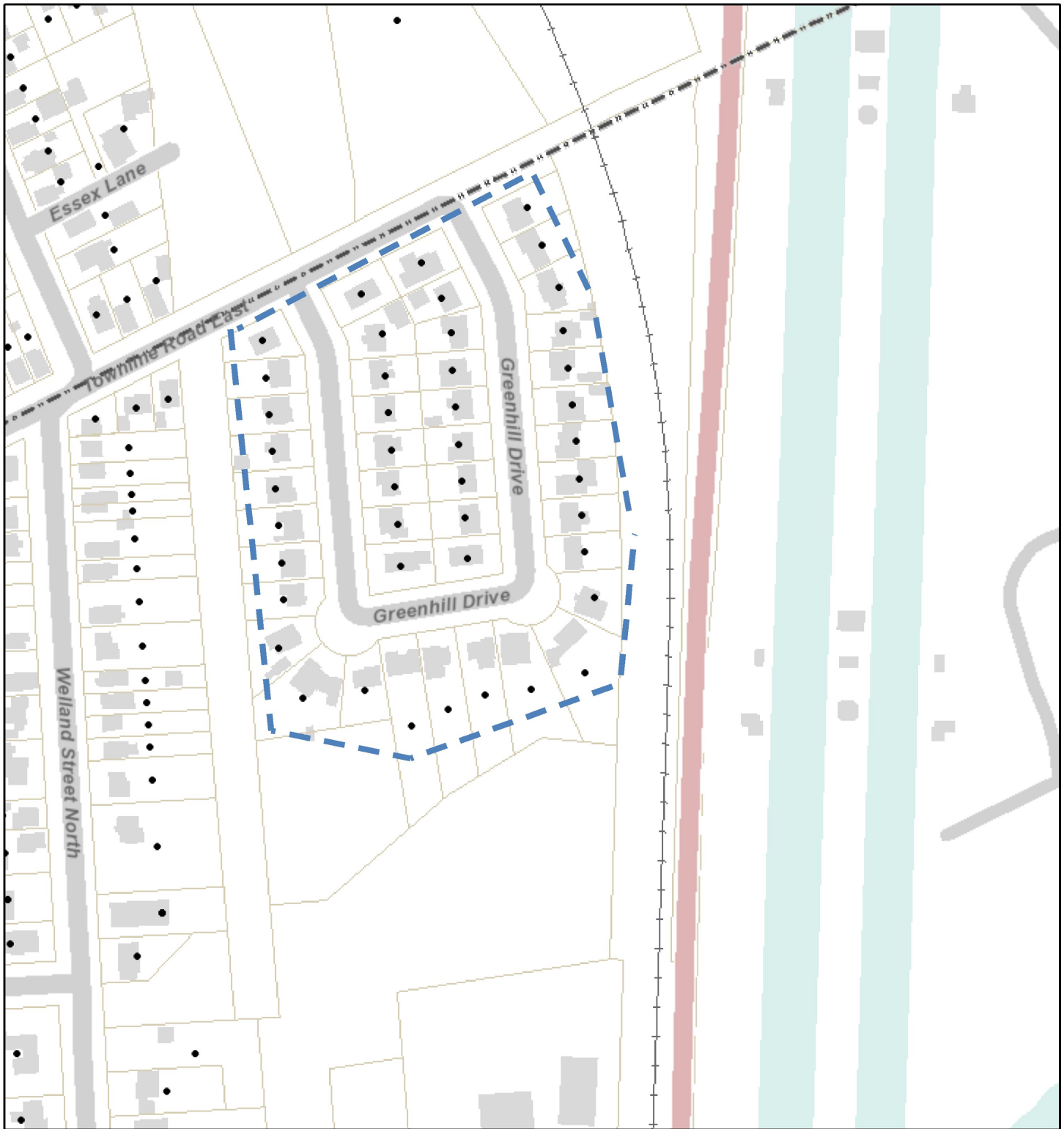
Recycling Box and Lid Distribution - Households in Thorold Map 2 of 3



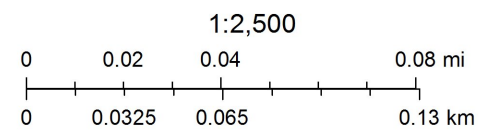
10/8/2019, 9:03:05 AM



Recycling Box and Lid Distribution - Households in Thorold Map 3 of 3



10/8/2019, 9:01:22 AM



MEMORANDUM

WMPSC-C 38-2019

Subject: 2020 Waste Management Planning Steering Committee Meeting Dates

Date: October 28, 2019

To: Waste Management Planning Steering Committee

From: Ann-Marie Norio, Regional Clerk

The following is list of proposed dates in 2020 that have been identified to hold meetings of the Waste Management Planning Steering Committee:

January 27, 2020

March 30, 2020

May 25, 2020

July 27, 2020

September 28, 2020

November 30, 2020

A resolution of Committee is required to approve the meeting dates. Suggested wording is as follows:

That the Waste Management Planning Steering Committee meetings **BE HELD** on Mondays at 9:00 a.m. on the following dates in 2020:

January 27, March 30, May 25, July 27, September 28 and November 30.

Respectfully submitted and signed by

Ann-Marie Norio
Regional Clerk